



New Challenges of Economic and Business Development – 2012

May 10 - 12, 2012, Riga, University of Latvia

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New Challenges of Economic and Business Development – 2012

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THE ROLE OF BRAND IMAGE IN COSMETICS INDUSTRY

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Abstract

As the current economic environment becomes more competitive and introducing new brands becomes increasingly costly, companies must find new strategies to increase their capacity and competitiveness. In order to win the leader position in the marketplace marketing specialists work out different kind of strategies to achieve long lasting success. One of the most significant among these strategies is customer loyalty toward the brand. To achieve customer loyalty marketers should focus on brand image attributes and benefits in their efforts. By maintaining and strengthening the brand image and values, it will position the brand positively in the minds of consumers.

Brand image comprises a consumer's knowledge and beliefs about the brand's diverse products and its non-product attribute. Brand image represents the personal symbolism that consumers associate with the brand, which comprises of all the descriptive and evaluative brand-related information. When consumers have a favorable brand image, the brand's messages have a stronger influence in comparison to competitor brand messages. Therefore, brand image is an important determinant of a buyer's behavior. Based on the brand image and the principle that identity is the source of brand positioning that can be used to attack a market with a view to growing market share at the expense of the competition.

It is very important for any business organization to evaluate their consumer's perception towards the image of their brand or services offered. Measuring brand image based on consumer's perceptions helps a company to identify the strengths and/or diagnose the weaknesses of their company image, company's product or brand image and its position in the market. It is also important to understand that a brand has many images which are generally in the form of brand attributes and/or brand benefits.

The primary purpose of this article is to illustrate the role of brand image in cosmetics industry, to summarize information from different studies and to describe the role of brand image in cosmetics industry. To analyse consumer's perceptions of these image attributes and benefits as it's a strategic way to identify the strength of a brand's quality and the meaning that consumers associate with the brand.

Introduction

By looking at the reason why consumers are buying one or another product, it can be stated that they are looking for satisfaction of their (consumers) needs. It can be quality, content,



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price, a practical or even just an attractive packaging that is satisfying their needs or wants. This is to point out that to create a perfect marketing programme is not that difficult. What is difficult is to know – those needs and wants of consumers.

It is asserted that brand image play an important role in everyday consumption practices, since they form a part of the interpretational frame that customers rely on when they are exposed to brand.

McEnally and Chernatony stated that brand concept was developed by the management while the consumer received the message from the management and form brand image in the memory. In this way it can be seen that brand is seen by consumer and management in two different ways, where one, in the management, it is a concept, but the other, of the consumers, is an image. As soon as there is a crucial difference between these two views, the marketing problem is accruing [24].

It doesn't matter if the enterprise is small or big, all of them should take into account brand image, if they want their product to be required on the market.

But to understand the “brand image” as a tool for successful management, it is important to make a study on this terminology, in order to see how it affects a consumer and what are the perceptions of consumer towards these image attributes and benefits.

Brand Image

Brand image is a quite young terminology, which was first introduced into the marketing discipline by a journal *The Product and the Brand*. “A brand name is more than the label employed to differentiate among manufacturers of a product. It is a complex symbol that represents a variety of ideas and attributes. It tells the consumers many things, but not only by the way it sounds (and its literal meaning if it has one), but, more importantly, via the body of associations it has built up and acquired as a public object over a period of time” [24].

Brand image has been a subject of great importance not only to the academic community but also to marketers and retailers due to its enormous implications for strategic management activities. In spite of the importance of the brand image concept in the marketing field, there are disagreements on how it should be defined [5].

Brand image research has long been recognized as one of the central area of the marketing research field not only because it serves as a foundation for tactical marketing-mix issues, but also because it plays an integral role in building long-term brand equity [10].

Like any other abstract concepts, brand image has multiple meanings and interpretations depending on the various viewpoints of research. In the literature, there are a number of conceptualizations of brand image applicable in consumer psychology, general psychology, as well as marketing. However a widely accepted view, introduced by Keller K. is that brand image represents customers' perceptions of a brand as reflected by the brand associations held in consumer memory [10]. Keller K. considered brand image as “a set of perceptions about a brand as reflected by brand associations in consumer's memory” [10]. A similar definition to Keller's was proposed by Aaker D.A., whereby brand image is referred to as “a set of associations, usually organized in some meaningful way” [1]. Biel A.L. however defined brand image as “a cluster of attributes and associations that consumers connect to the brand name” [3].



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Keller K. argued that these associations could originate from customers direct experience or from information obtained on a market offering or due to the impact a pre-existing associations with an organization had on consumer. Brand image is, therefore, the mental picture or perception of a brand or a branded product or service and includes symbolic meanings that consumers associate with the specific attributes of a product or service [5]. Brand image represents “the reasoned or emotional perceptions consumers attach to specific brands” a set of beliefs held by customers about a particular brand, based upon some intrinsic and extrinsic attributes of a market offering resulting to perceived quality, and customer satisfaction [13]. Brand image has been measured based on attributes [11]; brand benefits/values [9]; or using Malhotra’s brand image scale [14]. Measuring image based on the above definition would help marketers to identify the strengths and weaknesses of their brand as well as consumers’ perceptions toward their product or services.

Looking into Keller’s conceptualization of brand image, it is considered a perception about a brand as reflected by the brand associations held in consumers’ memory. He suggested that “brand associations” comprise of brand attributes, brand benefits, and overall brand attitudes [22]. To Keller attributes are „descriptive features that characterized a product or service – what a consumer thought the product or service is or has and what is involved with its purchase or consumption” [10]. Attributes can be classified into product-related attributes and non product-related attributes (i.e. price, packaging or product appearance information, user and usage imagery). Product-related attributes refer to the ingredients necessary for performing the product or service function sought by consumers while non product-related attributes refer to the external aspects of the product or services that relate to its purchase or consumption [22]. As for benefits, these are considered “the personal value consumers attach to the product or service attributes – that is, what consumers think the product or service can do for them” [10]. Keller K. described that this image benefits can be classified into functional, experiential and symbolic benefits, which was originally derived from the work of Park C.W. Here, the functional benefits are related to the intrinsic advantages of product or services consumption and usually correspond to the product related attributes [18]. For example, experiential benefits refer to “what it felt like to use the product or services and usually correspond to the product related attributes”, while symbolic benefits were associated with the underlying needs for social approval or personal expression and outer-directed self-esteem and basically corresponded to non-product related attributes [22]. For brand attitude, Keller K. referred to Wilkie’s W. definition of brand attitudes which was “consumers’ overall evaluations of a brand” [10]. Overall, image can generate value in terms of helping customer to process information, differentiating the brand, generating reasons to buy, give positive feelings, and providing a basis for extensions [1]. Creating and maintaining image of the brand is an important part of a firm’s marketing program and branding strategy [14].

Brand image which usually includes the product’s name, its main physical features and appearance (including the packaging and logo), and its main function(s), is the key to answer the question of how the consumer chooses among alternative brands after information-gathering processes of buyer behaviour. Alternative evaluation is how the consumer uses this information to evaluate the options and arrive at a brand choice. The perspective focusing on psychological attributes of a product of consumer behaviour states that consumers often choose products,



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services and activities over others because they associate these attributes with a certain life-style, a self-image by buying products that are an ascribed status. They attempt to preserve or enhance their self-image by buying products that they believe are congruent with that self-image and by avoiding products that are not [23]. For that reason, marketing academicians and practitioners see the symbolic image of product or services as more important in their success than their physical characteristics and attributes [1].

Brand image is important because it contributes to the consumer's deciding whether or not the brand is the one for him/her [27] and it influences consumers' subsequent buying behaviour [28].

Brand Image and the Country of Origin

The emergence of global brands gives rise to the issue of whether brand-image appeals affect consumer responses differently in different countries [9]. Before an enterprise that operates in markets of different countries decide to export its product to the other country, many points should be taken into account, like to identify the national characteristics that could affect the success of its brand-image strategies. It can be stated that brand images held in consumer mind are likely to be affected differently across countries of production.

Consumers tend to recall the stored information about the brand and the country in question and then they relate the brand name with the country of origin to form a brand image and infer the product evaluation [26]. The effect of country image on brand image is moderated by both brand and country reputation [29]. In different words, the brand image of a well-known brand of a given product produced in a famous country for that product is likely to be affected differently from the brand image of a well-known brand produced in an unknown country and vice-versa.

Hsieh [9] argued that brand image structure differs across countries. He also found that brand image is a set of perceptions about a brand as reflected by the brand associations held in the consumers' memory. A study he made across 20 countries supports a multidimensional brand image structure. Revealed dimensions transfer consumers' sensory, utilitarian and symbolic and economic needs about a brand. Low and Lamb [13] found – consistent with the idea that consumers have more developed memory structures for more familiar brands – that well-known brands tend to exhibit multidimensional brand associations.

This is one of the important issues in the context of cosmetic industries.

Conclusions

One of the most complex factors is brand image. A widely accepted view is that brand image represents customers' perceptions of a brand as reflected by the brand associations held in consumer memory [10]. Brand image can positively influence customers' perceived quality on a market offering and also boost customer satisfaction, loyalty and commitment towards a market offering. It is also evident that these variables have strong association to and with brand image [17]. This implies that a good brand image is that which impacts positively on this entire customer variable: customer satisfaction, loyalty, perceived quality and commitment to a market offering and not necessarily on one or few of the variables [17]. Creating and maintaining image



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of the brand is an important part of a firm's marketing program and branding strategy (Keller, 1993).

Brand-origin will have a significant effect on brand image perception. Consumers tend to recall the stored information about the brand and the country in question and then they relate the brand name with the country of origin to form a brand image and infer the product evaluation [26]. The effect of country image on brand image is moderated by both brand and country reputation [29].

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PECULIARITIES OF THE STABILIZATION POLICY IN AZERBAIJAN UNDER THE FINANCIAL CRISIS

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Keywords: monetary policy, state budget, stabilization policy

Abstract

General characteristic of Azerbaijani economy is its high sensitiveness to external shocks. This is mostly due to high share of oil and gas sector in the economy, which reached at different times approximately 55-60% of GDP. In this connection the dynamics of energy resources prices in the world market is the main channel of impact of the financial crisis on economic situation in the country.

As in many countries with developing financial markets and specific structural characteristics of the economy, exchange rate of Azerbaijan manat to USD dollar is an important “nominal anchor” for ensuring the macroeconomic stability. In other words, among all possible interim monetary indices manat’s exchange rate is the most under control and predictable orientator for achieving ultimate aims of monetary policy – stabilization of price and financial system.

As a whole it is considered that in the capacity of a conductor for the monetary and fiscal policy one of the following indices could be chosen – the exchange rate, money supply and the interest rate. It is not possible to target all those three indices at the same time. Fixation of exchange rate in this case does not allow the central bank to operate with interest rate. With intensification and complication of the capital market the demand for money becomes unstable and the interest rate comes out as a main orientator for the participants of economy.

The article analyses the peculiarities of the stabilization policy in Azerbaijan.



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Macroeconomic situation in Azerbaijan depends significantly on prices and plans of the main point of the country's oil and gas export [1]. So:

- in high prices and rates conditions in the world market of energy resources profit of current account on balance of payments of the country which is becoming a pressuring factor on the nominal rate of national currency. The attempts of Central Bank (CB) of Azerbaijan to slow down the rates of national currencies consolidations within active mechanisms of monetary-credit regulations, more specially, within either targeting of the amount of money in circulations (according to M2), or targeting of the nominal rates of the national currency makes it purchase redundant currency masses on the market. This leads to the increase, on one hand of gold and foreign exchange reserves of CB, on the other hand to the increase of the amount of money in the circulation which boosts inflation processes and specifies the growth of the real effective rates of national currency.

Moreover, with the growth of prices and rates in the world energy resources market, takes place the growth of inflation imported into the country. This forces CB which provides constant monitoring of the inflation rates in the country to take more measures about its' reduction – more specifically provides further consolidation of the national currency rates;

- in the years of adverse extra economic conjuncture – slump in level of prices and rates in the world markets of energy resources becomes a necessity:
 - appropriate corrections and reduction of budget expenditures;
 - extra injections on currency market with the purpose of elimination of devaluation of national currency;
 - reduction of level of gold and foreign exchange reserves of the country.

In the tables 1 and 2 it is given the dynamics of basic macroeconomic indices of Azerbaijan in the years of favorable (2005-2008) and adverse (2008-2009) situations in the world markets of energy resources. As it is seen from submitted data:

- it is a big correlation between the dynamics of GDP of the country and average annual level of prices for oil in the world markets of energy resources and according to this the years of favorable and adverse situation are noted;
- the growth of M3 (because of incoming “petrodollars”) specifies intensive currency buying-up by CB, the growth of M2 and gold and foreign reserves of CB from one side and inflation level from other side (the most characterized in this case were the years 2007-2008, when inflation levels were approximately 16.7 and 20.8%);
- the necessity of reduction of inflation level in the conditions of targeting of M2 specifies the strengthening of national currency rate. The national currency rate has been strengthened on 15% in 2008 compared to 2005.
- in the years of adverse conjuncture (2008-2009) price shocks in the world markets required serious adjustments on correction of budget policy of the country (table 2). In these years reductions of some articles of budget expenditures, injections from State Oil Fund (SOF) were necessary for maintenance of social guarantees of the government, additional expenses of gold and foreign reserves of CB that became slump in its' level and etc.



Table 1

The dynamics of basic macroeconomic parameters

	2000	2005	2006	2007	2008	2009	2010
GDP (in mln. manat)	4718.2	12522.5	18037.1	26815.1	40137.2	34578.7	41574.7
Share of oil-sector in GDP (in %)	35.2	51.6	60.8	64.4	62.1	54.6	55.6
Average annual value of AzeriLite type oil (in US \$)	29.0	54.4	60.2	72.7	97.7	62.1	78.2
Average annual nominal national currency rate compared to US \$	0.8948	0.9459	0.8714	0.8461	0.8046	0.8030	0.7989
Inflation	1.8	9.6	8.3	16.7	20.8	1.5	5.7
Monetary units (in mln. manat)							
M0	207.0	547.4	1853.6	2713.5	4145.7	4174.8	5455.8
M2	325.8	796.7	2137.7	4401.6	6081.0	6169.2	8297.5
M3	509.7	1841.8	3440.5	5897.3	8494.2	8469.2	10527.5
Rate of Central Bank's reserves (in mln. US \$)	691.4	1112.2	1967.3	4015.3	6137.0	5175.6	5470.7

Because of this in accordance with estimation of some international financial institutes and mainly International Currency Fund (ICF) the quality of the conducted budget and macroeconomic policy is low in Azerbaijan today. In the period of 2005-2008 the macroeconomic balance in the country was upset – passing ahead of overall demand over overall supply speeded up inflation processes.

Peculiarities of stabilization policy under global financial crisis. The main channels of transmission of global crisis on Azerbaijan economy were:

- slump in prices for oil on world markets (besides reduction of liquidity in economy, world prices cut has its influence also on export of other spheres, in particular metallurgy, chemical industry);
- high level of financial liberalization (since 2007 limits on operations with currency have been taken in Azerbaijan);
- reduction of foreign refinancing of banks in the result of crisis.

In these conditions CB and Azerbaijan government had to accept not ordinary arrangements for stabilization in economy.



Table 2

The basic parameters of Azerbaijan state budget

	2000	2005	2006	2007	2008	2009	2010
Incomes in total (in mln. manat)	714.6	2 055.2	3 868.8	6 006.6	10 762.7	10 325.9	11505.0
Share of income from oil and gas sector (%)	28.6	33.7	58.4	58.2	63.9	64.9	66.2
Expenses in total (in mln. manat)	764.0	2 140.7	3 790.1	6 086.2	10 774.2	10 567.9	12275.0
Level of budget deficit (%)	7.0	4.2	-	1.3	0.1	2.3	6.7

The present model of CB's monetary policy had two-stage structure: the first stage with classical instruments of monetary policy was directed on maintenance of stability of consumer prices in economy; the second stage included the mechanisms of countercyclic macroprudential regulation. The essence of the last mechanism is the regulation of capital adequacy norms by banks and compulsory reservation.

An effective use of this model let CB to neutralize some negative consequences of crisis on the economy of the country. The prudential norms were defined to maintain liquidity enough and create additional reserves on potentially problematic credits. The conditions of assets classification were tightened, price ratio of total credit guarantee was increased. The norms of risks were revised and toughen with the purpose of regulation of credit risks.

The main purposes of Azerbaijan Central Bank's policy in crisis period included provision of financial system with liquidity, maintenance of overall demand and stability of financial system.

For this purpose a wide range of measures have been used:

- CB (Central Bank) 6 times changed refinancing rate and collar limits on operations in open market towards decrease. In the result of this refinancing rate decreased from 15% to 2%, consequently high collar limit fallen from 20 to 7%. Standards of mandatory reservation on internal source of funds attraction were decreased from 12 to 0.5% and on external sources of funds attraction were abated at all. In the result *net volume of "liquidity injections"* to economy in the years of crisis amounted approximately 2 bln. USD. Banks received 730 mln. USD of this sum at the expenses of reduction of required reserves.
- Activation of discount window of Central Bank in general was oriented towards support of liquidity of backbone companies – State Oil Company and banks aiming at timely external debt service;
- Mortgage fund extended its operation, this is immediately showed itself on the price stabilization in immovable property market and increase of activity in this market (prices stabilization played important role in financial position of banking sector, because immovable property was a mortgage for the half of loan portfolio).



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All of these measures strengthened financial stability of banking sector. So, liquidity of banking sector is very high today, quick liquidity consist of 80%, while accepted minimum standard is 30%. Long-term liquidity also is remaining favorable. Results of stress-testing conducted by Central Bank indicated that, even in case of the most unfavorable scenarios of macroeconomic situation developments banking system is able to survive after strong shocks and absorb arising losses.

Characteristics exchange rate policy. As it is known in accordance with IMF methods, currency rate policy which is realized in various countries is classified as following:

- *rigid fixation* (national currency rate is fixing rigidly in ratio to one of the leading world currencies and CB of the country is bounded to support exchange rate of national currency by means of currency interventions);
- *flexible fixation* (the sense of this is in controlling national currency rate by CB without rigid fixation, but in the frame of certain “collar”). There are *usual flexible fixation*, *actual stabilization*, *horizontal collar*, *sliding linkage* types of flexible fixation;
- *floating currency rate* (it has types: *controlled floating* and *free floating*). When it is *controlled floating* the currency rate is defined mainly by the market, on the basis of demand and supply and CB impacted on the rate formation only when it is necessary, by conducting currency interventions in market. When it is regime of *free floating* national currency rate formed by the market and impact of CB on the market by currency intervention takes place in exclusive cases.
- *other regimes of rate controlling* (all types of currency rate policies which are not referred to other categories refer here).

In Azerbaijan, as it is in many countries with developing financial markets and specific structural characteristics of economy manat to dollar exchange rate is significant “nominal anchor” to support macroeconomic stability [2-4]. In other words, among all possible intermediate money indicators the rate of manat is the most controlled and predictable guideline for achievement of aims of money policy like price stability and financial system.

In the whole as guides of money-credit policy one of the following three indicators may be chosen – exchange rate, money volume and percent rate. It is impossible to target all these indicators simultaneously. In this case fixation of exchange rate does not allow central bank to operate percent rate. Besides, as per Mandella-Flemming model, while passing to floating currency rates system under condition of high mobility, international movement of capital efficiency of fiscal policy as macroeconomic regulator is falling significantly. In this case, money-credit policy became the most efficient tool to impact on issue and employment level in economy.

As more the growth of monetization of GDP, financial market deepening and complication, capital market developing and elimination of structural distortions in transition economy the demand for money became unstable and percent rate is going to be main bench mark for participants of economy activity. Fixation of exchange rate in this case does not allow central bank to operate by percent rate.

On the basis of above-mentioned, Central Bank of Azerbaijan basing on the principle of evolutionary modification of monetary policy regime de facto conducts rate policy in the regime of linkage to USD, although de jure currency basket consisting of USD and euro is serving as



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operational bench mark. There are serious basis for this. The matter is that, the year of 2009 is appeared to be the period when excessive manat volatility could bring to destabilization of financial sector. But standard use of currency basket provides for synchronization manat rate movement in ration to USD and Euro with movement of cross-rate of USD to euro.

Such policy allows to central banks gradually refuse from one-sided fixation of rate to USD, to support flexibility of the rate and smoothly change over other monetary bench marks (in the first place percent rate on interbank market). However, this demands corresponding conditions in the economy. The decision of rate stability support was made on the basis of analysis of macroeconomic factors.

The following arguments showed the need in conducting devaluation of manat:

- This permits to improve foreign-trade balance in the conditions of price falling for exported goods.
- Defense de-facto of fixed rate brings to significant loss of gold currency reserves.
- Devaluation of monetary unit allows to exporters to get additional liquidity.
- From other side, there were serious arguments for keeping stability of exchange rate.
- Payment balance – basic monetary basis of rate stability – it remains stable and does not give basis for devaluation. Currency reserves in this case cover money volume in national currency fully. The countries, which faces growing deficit of payment balance and danger of complete loss of currency reserves resort to devaluation.
- In the condition of reduction of global demand and contraction of external markets, a positive effect of devaluation on export may be enough limited. As regards to the problem of import curb, its volume in non-oil sector decreased even without devaluation.
- Devaluation will not assist to quick import replacement because of limited unloaded producing capacity.
- Under conditions of high unit weight of imported packaging, materials and semi-manufactured articles in the production of local goods (as per some investigations from 40% to 60% depending on fields of industrial manufacture) devaluation of manat may disrupt its external competitiveness.
- The growth of inflation and consequently decrease of real assets and capital price, impoverishment of population could be the result of devaluation.
- While current scales of dollarization of the loans (46%) 2/3 dollar loans were issued to sectors of economy which did not receive income in foreign currency. Consequently, devaluation could influence to financial position of these sectors, causing acute impairment of the ability to pay on bank loans.
- Acute devaluation could bring to panic among population and sharp outflow of finds from the banks, intensifying liquidity problem. At the same time, floating devaluation would strengthen uncertainty, causing dollarization and further pressing on currency reserves.
- Devaluation could increase expenses on foreign debt servicing and debt burden of the banks.

In long term perspective Central Bank of Azerbaijan is orienting towards gradual transmission to regime of flexible exchange rate. In post crisis period the flow of foreign capital and exported oil incomes have grown. This may bring to overheating of the economy because of



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increase of money emissions in the condition of fixed currency rate. Therefore, flexibility of rate policy is very significant in the long-term plan for concentration of monetary policy on achievements of target indicators of inflation.

Peculiarities of structural policy. Workable model of economic growth is oriented to achievement of high level of diversification and step-by-step growth of the share of non-oil sector of economy in aggregate volume of country export. The model structure is based on the fact that quantity of country population (9 mln.) does not provide sufficient level of internal demand, but while by 2025-2030 years growth of GDP level in 2-2.5 times, the strategy goal – provision may be archived only on the basis of external demand and under strong diversification of non-oil sector of economy.

Stated goal requires from one side, the achievement of high competitiveness in the economy, which is impossible without formation of high effectively national innovation system and realization of correspondent structural policy, and from other side – the solution of problems of macroeconomic stability. In other words, there are two mutually complementary control loops in the developing model: the first is influence on aggregate demand, as more dynamic component of macroeconomic balance (this direction is realized by means of tools of money-credit and budget-taxation policy); the second is influence on aggregate supply (in this loop the decisive role belongs to structural policy, which impacts first of all on aggregate supply).

Stabilization policy in the model of economic growth is directed to creation and support of macroeconomic balance (to maximum apply of factors of production in the condition of stable prices level). As per data of 2010, the level GDP per head in the country, on purchasing-power parity (PPP) amounted about 9.0 thousand USD. In the new strategy of economic development of Azerbaijan, in medium term perspective, the goal is to provide GDP per head on the level of 15-17 thousand USD. For this variant the volume of private investments on the level no less that 50% of the achieved non-oil GDP is required. As per experts' estimations Central Bank of the country is able to sterilize the volume of investment funds no more that 5 bln. USD yearly and only in case of such volume of money supply growth to ensure preservation of macroeconomic stability (as it is known, the last one demands balance of temps of money supply growth and economic growth).

The concept of structural adjustment in Azerbaijan is necessary for formation of industrial diverse of national economy. According to this there are three groups of branches in the structure of economy:

- *branches of fuel and energy complex, metallurgy* which keep its competitiveness and attractiveness for foreign investments;
- *branches capable of supplying product for export*, some branches of manufacturing industry (branches of chemical industry, construction materials producing industry, food-processing industry), agriculture and etc.
- *branches that can be competitive on internal market* (some branches of light industry, food industry and etc.).

State participation in the model supposes:

- *direct effects* as subsidies, soft investment loans with purpose of creation, maintenance or development of some enterprises, branches and conducting of fundamental and applied research works. In accordance with this there is National Fund for the support



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of enterprise of Azerbaijan and Azerbaijan Investment Fund realizing preferential crediting of priority directions of small and medium enterprise and strategic investment projects;

- *indirect effects* which are realized mainly by tax allowance with purpose of increase of quantities of output and encouragement of investments. At the present all branches of agriculture production are included (after land reform farm enterprises of the country were released of all types of direct and indirect taxes except tax on land and tax on importation of seeds for production); financial sector and etc. In the model the future development of this direction supposes the involvement of processing industries having export orientation. This direction is ensured due to structural change taxing.

In the model stabilization and structural policy are closely connected because macroeconomic stabilization as a factor of improvement of investment climate creates conditions for investments in competitive industries of real sector and for economic growth. And vice versa effective structural policy is an important factor of keeping of stable macroeconomic environment.

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REGIONAL INTEGRATION IN THE EU COMMON MARKET FROM AGRIBUSINESS PERSPECTIVE

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Abstract

The process of regional integration of different groups of countries in the European Union (EU) common market have stressed an interdependence of political and economic issues as since the EU enlargement in 2004 and 2007 the concept of Old Member States (OMS) and New Member States (NMS) is still outstanding. The primarily considered for the overall EU positive economic effect from free trade left the agro-food market effects generated by common agricultural policy (CAP) not sufficiently assessed. The method applied for this study is comparative analysis of indicators defined for measurement of regional integration progress related to policy and economic dimensions. The policy indicators show the level of direct support and are analysed in line with current CAP and reform proposals for period 2014-2020. The economic indicators are related to productivity and trade. The hypothesis, that different level of productivity combined with the different CAP conditions for OMS and NMS hinders the regional integration process in the EU common market can be approved by both, theoretical and empirical evaluation. The empirical analysis of support, productivity and trade variables show the asymmetries in both – policy and economic trends related to agribusiness.

Introduction

The process of regional integration of different groups of countries in the EU common market have stressed an interdependence of economic and political issues as since the EU enlargements in 2004 and 2007 the concept of Old Member States and New Member States are still outstanding. The primarily considered for the overall EU positive economic effect from free trade left the market effects generated by common agricultural policy not sufficiently assessed. Agro-food market is of high economic, political and social importance. The economic



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importance is the strong connection of agriculture with food and non-food processing industry which use raw materials from the primary sector. For those economies driven by use of natural resources agriculture and food production can play an important role in improvement of external trade balance. Political importance is mainly comprised by high share of EU budget spent for financing the CAP. Social importance is defined by food safety and food price issues which in turn are closely connected with economic and political ones. CAP has been reformed by permanent process, and the next reform is set up in Regulations' proposals for planning period 2014-2020 with respect to new challenges for agricultural sector. Policy measures will be re-considered and the funding and distribution of the budget between countries as well [1]. Anyway, the future framework of CAP will remain having strong influence on competition conditions within the EU common economic space. In line with the proposals for EU budget and CAP reform for period 2014-2020, the purpose of the paper is to provide comparative analysis of OMS and NMS regional integration in the EU common market in terms of agribusiness. The interrelation of political and economic aspects and their combined effect on regional integration will be explored as well. The hypothesis is that different level of productivity in agribusiness combined with the different CAP conditions for OMS and NMS hinder the regional integration process in the EU common market. In this paper OMS are considered as EU-15¹, and NMS are considered as EU-12² countries.

The structure of the paper is as follows. The first section describes the theoretical background for analysis of regional integration. The second section explains the methods and methodology applied. The third section is considering the EU policy framework for agribusiness. The fourth section provides an empirical analysis of policy and economic indicators in order to give a picture of integration of NMS and OMS within the EU common market. The last section concludes.

1. Theoretical Background for Analysis of Regional Integration

In academic literature there are observed two contiguous aspects – regionalism and regional integration; and the methodological issues for its evaluation. Matthews [2] summarised that the regionalism covers the contributions of economics, international relations and international political economy, and the issues addressed to these disciplines are: motivation for making regions, structure of regions, efficiency of its functioning, impact on economic growth for members, convergence of economic performance between participating countries, sustainability of regions and systemic development by building blocks. Economists' analysis of regions begins with the classic theory of customs unions formulated by Viner [3], where traditional economic approach to regional trade integration started with assumption of perfect competition in markets and has been further developed in the context of imperfect competition. According to Balassa [4] the economic integration can take five forms that represent increasing degrees of integration: a free-trade area (FTA), a customs union, a common market, an economic union, and a complete

¹ Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, United Kingdom.

² Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia.



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economic integration. The EU has been selected as the only example of economic integration having gone through the various stages up to an economic union thanks to combination of founding treaty that spelled out these various stages (at least from FTA to a common market); a set of common institutions in charge in overseeing the process of integration; and a set of common policies [2]. The research on the common market, transition issues, the Economic and Monetary Union (EMU) and EU enlargement are illustrative that the integration goes in line with the political developments, and is very much a response to the signals emitted by the political centres and actors. According to that an important issues are the degree of structural asymmetries between the members of an integration arrangement; and impact of the agreement on economic development. In several research, the integration processes built on asymmetric groups where a leading country/countries perceives enough benefits to justify the provision of the collective good (the integration agreement) has been expected to be the more dynamic and effective ones. In other research it has been assumed that the basic pre-condition to start a stronger regional integration process is a stronger domestic development experienced by each country in the region combined with the political and social willingness of the majority of the members to build the trade block. And there should not be large margin of difference in the domestic development (political, social, economic and technological) among its members [5].

In respect of the second approach Estrada [6] proposes a multi-dimensional regional integration evaluation (RIE) methodology. The central idea behind the RIE methodology is that regional development promotes regional integration. Mohl and Hagen [7] evaluated the growth effects of European structural funds payments at the regional level. Using a spatial panel approach they have found that regional spillovers do have a significant impact on the regional growth rates. This finding confirms the importance of regional interconnectivity implying that the growth performance of western European regions (OMS) also depends on the GDP growth rate in the neighbouring regions (NMS). Lombaerde and Langenhove [8] have proposed the methodology for System of indicators of regional integration (SIRI) with the particular attention to the translation of the chosen variables into indicators, the structuring of variables and analysing them. Due to multidimensional character, the variables could be organised according to disciplinary fields (political, social, cultural, economic, etc.), and/or policy areas (trade, investment, migration, competition, agriculture, industry, infrastructure, legal cooperation, etc.). The latter is the traditional sectoral approach to integration. A third way of classifying the variables consists of a classification on a functional basis, like in the input-output approach. Integration is then implicitly seen as a process where some variables act as inputs, some as outputs, while others characterise the process. Structural characteristics of the integrating area, asymmetries, capacities to integrate, commitments, governance structure etc., can be considered as inputs. A special category of inputs could be called preconditions for integration. Policy implementation, effects on flows, effects on growth, etc., could be considered as outputs. The advantage of functional classification is the emphasis on the output or the effects of integration. To consider the parallel but interconnected processes of institutional and political economic regional integration also has been proposed by Lombaerde and Langenhove [8].

2. Methodology

The SIRI methodology initially proposed by Lombaerde and Langenhove [8] and described in above section has been selected and adapted to be applied for this study.



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The method used is quantitative comparative analysis of indicators defined for measurement of regional integration progress and related to policy and economic dimensions. Qualitative assessment of policy framework defined by CAP with respect of competition conditions will be done as well. The economic indicators are related to productivity and trade. The policy indicators show the level of direct support and are analysed in line with current CAP and reform proposals for period 2014-2020. The last ones make strong further consequences for countries' competitiveness in the EU common market. Organization of variables translated into indicators according to SIRI methodology is structured in Table 1.

Table 1

Organization of variables for comparative analysis of regional integration

Classification of variables according to			Indicators
Disciplinary field	Functional base	Policy area	
Policy	Inputs	Agriculture	Direct support
			Rural development support
Economics	Outputs	Competition	Labour productivity
			Land productivity
		Trade	Net trade of agro-food with EU27
			Net trade of agro-food with countries other than EU27

Source: authors' classification based on SIRI [8] methodology

Eurostat and European Commission (EC) data will be used as informative base for estimation of indicators where results will be obtained in aggregated form for OMS and NMS.

3. The EU Policy Framework for Agribusiness

The evolution of the EU is by moving from a FTA to an Economic and Monetary Union, and by expanding from 6 members at the start to 27 members today. The EU enlargement especially in 2004 and 2007, when the poorer countries of Central and Eastern Europe joined the EU, has increased both economic and political diversity between members, and the issue of economic convergence became of increased importance. The various policies were put in place in order to foster economic convergence, and thereby to help an increasingly heterogeneous EU to function relatively smoothly. There has been set a portfolio of internal policies and programmes rather than one single encompassing policy that should contribute either directly or indirectly to a deepening of regional integration – competition and industrial policy, regional policy (in the Structural and Cohesion Funds), agriculture and fisheries, social and environmental policies [9].

Unfortunately the policies don't serve the base for equal competition [10]. Unequal support level for producers in the EU Member States is one of the reasons which determine unequal competition conditions on the market. And the problem inducing the writing of this



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article is not so smooth functioning regarding agricultural policy and it's outcomes considering the grouping of countries as OMS and NMS. The current CAP has been implemented through two pillars. The 1st Pillar provides market and direct support. The 2nd Pillar provides support for rural development in the form of modernization of agricultural production, maintenance of environment and diversification of economic activity in rural areas. The Fischler reform in 2003 changed the form of CAP direct income support by introducing decoupled single payment scheme, though it largely preserved the scope and distribution of funds across Member States and types of agricultural holdings [11].

Table 2

Economic and policy indicators in 2010 and potential level of EU funding in 2020 in EU15 and EU12

Indicators		EU15	EU12
UAA eligible for direct payments, thsd. ha	(1)	117 612	43 455
Agricultural labour, thsd.	(2)	4 420	4 941
Direct support in 2010, thsd. EUR	(3)	35 924 122	5 641 493
Rural development support in 2010, thsd. EUR	(4)	16 873 708*	6 926 097*
Potential funding for 1st Pillar in 2020, thsd. EUR	(5)	33 316 078	9 464 201
Potential funding for 2nd Pillar in 2020, thsd. EUR	(6)	16 873 708	6 926 097
GVA in actual prices in agriculture, mio EUR	(7)	123 123.7	20 685.9
Labour productivity in agriculture as GVA per person, EUR/person	(8)	27 856	4 187
Land productivity in agriculture as GVA per area, EUR/ha	(9)	1047	476
Direct support, EUR/ha	(10)	305	130
Rural development support, EUR/ha	(11)	143	159
Net trade of food, drinks, tobacco with EU27, mio EUR	(12)	5833	-2633
Net trade of food, drinks, tobacco with other countries than EU27, mio EUR	(13)	-7341	2976

* including EAFRD and national funding, average per year of period 2007-2013

Source: Eurostat; IACS statistics of EU Member States; EC [1]; authors' calculations

In the current form CAP became contradictory as the EU tax-payers have to pay also higher prices for food products as the market support measures financed by budgetary means are in place. Another contradictory element is direct support for agricultural production becoming a reason for farmers to apply for export subsidies after that. Furthermore, the high costs of decoupled single payment scheme do not ensure equal benefits neither on Member state, or certain farm level. The difference between average level of direct support per ha in OMS and NMS in 2010 is almost two times. As well as allowed national co-financing level for rural development programmes is 50% on average in OMS and 29% in NMS. Those issues could explain the slow progress of regional integration within the EU common market where observed policy asymmetries would lead to economic development asymmetries.



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The EU budget is the main instrument for reaching the EU policy goals. And, however, the states should be powerful actors in shaping the rules of competition in markets [12]; the facts are that countries' payments based on gross national income (GNI) make around 70% of overall budgetary resources while the budgetary spending for agriculture uses around 40% of the total budget. That explains exacerbated attention of Member States to financing, spending and re-distribution aspects regarding the EU budget for next planning period 2014-2020. The proposed sharing of support doesn't make sufficient step to improvement of competition conditions (see Table 2, indicators (5), (6)).

4. OMS and NMS: Comparing the Integration in the EU Common Market

The motivation of countries for making regions are mostly based on expectations how efficient it may function, what will be the impact on economic growth for members and at what extent will be a convergence of economic performance between participating countries. Regional integration in fact is the degree at what those expectation are fulfilled. That can also affect the sustainability of regions and its' further development by building blocks. The following indicators have been defined for measurement of regional integration progress related to policy and economic dimensions. The economic indicators are related to productivity and trade issues: the productivity levels in OMS and NMS reflecting how country blocks would capture the possible fluctuations in product and factor prices; trade balance for food, drinks and tobacco reflecting the dominance and its tendencies of country groups in extra and intra EU market. The last ones make strong further consequences for countries position in the EU common market as well as can show the future potential of agricultural industry in case of trade liberalization according to WTO Doha round development.

OMS and NMS: comparing productivity in agribusiness

Productivity of production factors is very important to succeed in any market. At the same time it can be compared for different groups of countries in order to find out, is there the case of equal economic development having the good pre-condition to perform a successful integration. Agricultural land and labour productivity show that there has not been observed any convergence in productivity levels for OMS and NMS despite the application of rural development policy which besides environmental and economy diversification goals should enhance competitiveness of agriculture as well. Land productivity in NMS in 2010 is still around twice lower, while labour productivity is more than six times lower than in OMS (see Table 2, indicators (8), (9)).

OMS and NMS: comparing an extra and intra EU trade

Intra-regional trade has become more prominent following the increase in regional integration agreements not only in the EU, but also in other major areas (NAFTA, ASEAN and MERCOSUR). Nevertheless the share of intra-regional trade in world trade (which also depends on the number of member countries and the trade size of the region) has not grown significantly in recent years [13]. Trade balance for food, drinks and tobacco show that up to 2010 external trade has remained stable and negative for OMS. At the same time joining to the EU has provided the benefits for NMS growing their exporting capacity outside the EU. The opposite situation can be observed in terms of intra trade within the EU. OMS has stable and positive balance; while NMS balance in EU common market is negative (see Table 2, indicators (12),



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(13)) which partially can be explained by different market conditions provided by CAP. That shows that NMS are tended to build up a block of exporting countries while the OMS remain net external importers of food products.

These two opposite tendencies with higher/lower subsidies level together with extra/intra EU trade flows show more the regionalisation process within the EU rather than integration. That reflects also the different directions in institutional and Member states views on further policy development which could influence the regional integration within the EU common market. Nevertheless the policy program making should provide fair conditions for all the countries in order to make countries capable and willing to promote and perform integration process which could contribute to better development of the entire EU.

Conclusions

1. There are two contiguous aspects – the regionalism and regional integration. Regionalism can be considered mostly as expectations regarding efficiency of functioning of the regions created, regarding economic development or impact on economic growth for members and regarding convergence of economic performance. In case that these expectations are satisfied, it result in regional integration and might lead to sustainability of regions and/or creating new regional blocks inside the existing regions.
2. SIRI methodology selected and adapted to be applied for this study takes into account the multidimensional character of regional integration where particular attention has been paid to the translation of variables into indicators, the structuring of variables and analysing them. The variables were organised according to economic and policy disciplinary fields and classified on input-output functional basis and agriculture, competition and trade policy areas. Indicators for measurement of regional integration progress have been selected the following:
 - a. policy indicators reflecting the level of direct and rural development support;
 - b. economic indicators reflecting productivity and trade level.
3. The hypothesis, that different level of productivity combined with the different CAP conditions for OMS and NMS hinder the regional integration process in the EU common market, can be approved by both, the theoretical and empirical evaluation.
 - a. one of the basic pre-conditions for regional integration – the stronger domestic development of each country in the region, and a small margin of difference in the domestic development among its members for OMS and NMS has not been fulfilled;
 - b. the policy framework and particularly the CAP can be characterised as providing unfair competition conditions for agribusiness in EU common market;
 - c. the empirical assessment of support, productivity and trade variables show the development asymmetries in both – policy and economics trends related to agribusiness and show more the regionalism process within the EU rather than integration.

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LOCAL INHABITANT AND SERVICE STAFF READINESS TO ASSISTIVE COOPERATION TOWARDS TOURISTS

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Keywords: tourism, attitude, destination, competitiveness, cooperation

Abstract

Purpose. is to analyse local service staff and local inhabitant attitude towards tourists in Latvia. Local inhabitant readiness to cooperate in assisting tourists is part of competitive advantage of tourism destination that is indicated as new affinity parameter in international Travel and Tourism Competitiveness Report. List of secondary data indicates current situation in local inhabitant attitude – analysing international tourist satisfaction level in Latvia we can see that 2/3 of tourists are evaluating it as good, but the Travel and Tourism Competitiveness Report 2011 (World Economic Forum) indicates attitude of population towards foreign visitors for destination Latvia only under rank 130 out of 139 countries worldwide.

Design/methodology/approach. In order to investigate local inhabitant and service staff attitude and readiness to cooperate and assist tourists qualitative research methods are used to observe responsiveness, communication, courtesy and other attributes of two investigated groups of inhabitants and tourist related service staff in Latvia.

Findings. Research results show the readiness of local inhabitant and service staffs to assist tourists – almost four out of five local inhabitants are ready to assist foreign tourists. 17% of local inhabitants have no assistive cooperation towards tourists, meaning that every fifth or sixth inhabitant just passes by indifferently when approached by foreign tourist with request for help.

Research limitations/implications. Research method is experiment that is conducted by international students as tourists that have common instructions for research organisation process. Each experiment results evaluation process is based on common value that is given by several students. Experiment is performed in tourist area where local inhabitants have better foreign language knowledge.

Practical implications. Recommendations are directed towards enterprises in tourism areas and tourism related NGOs.

Originality/value. This is the first attitude study towards tourists that is made as wide range of experiments both for local inhabitants and service staff.

1. Introduction

Is local inhabitant attitude important for tourism development in different destinations?
Rather often we can see the undervaluation of importance of local inhabitant influence on



tourism development. There is quite a big scepticism towards it both from the practitioners as well as from scientists that study tourism industry related issues. Seems to be a list of other matters of great importance that are a way more important than attitude of people that are walking nearby foreign tourists in tourism destination. From the other hand there are authors stressing local residents' support and emphasizing that it is essential to ensure long-term success in tourism destination development [1]. Aim of this article is to show the importance of both local service staff and local inhabitant positive or assistive attitude towards international tourists from the point of view of tourism destination development. The place of experiment is Riga – the most intensive tourist area in Latvia, that attracted in the year 2011 over one million foreign visitors.

2. Literature Review and Conceptual Analysis

Could be local inhabitant attitude part of destination competitiveness? Development of international tourism creates competition of destinations not only on regional but on truly global worldwide bases. To this influence from tourism destination supply side additionally come changes in tourism demand side – access to information on destination and steady increasing tourist experience and knowledge has generated new approach to competition in tourism. There are various scientists and tourism organisations that study specifics of destination competitiveness – as comprehensive example is The World Travel and Tourism Council's (World Economic Forum) developed Travel and Tourism Competitiveness Report [2] that contains detailed profiles for the 139 countries featured in the competitiveness study, with extensive data on global rankings covering over 70 competitiveness indicators.

The Travel and Tourism Competitiveness Report aims to measure the factors and policies that make it attractive to develop worldwide tourism destinations. It is based on three broad categories of variables that facilitate or drive tourism competitiveness – tourism regulatory framework, tourism business environment and infrastructure, as well as human, cultural, and natural resources.

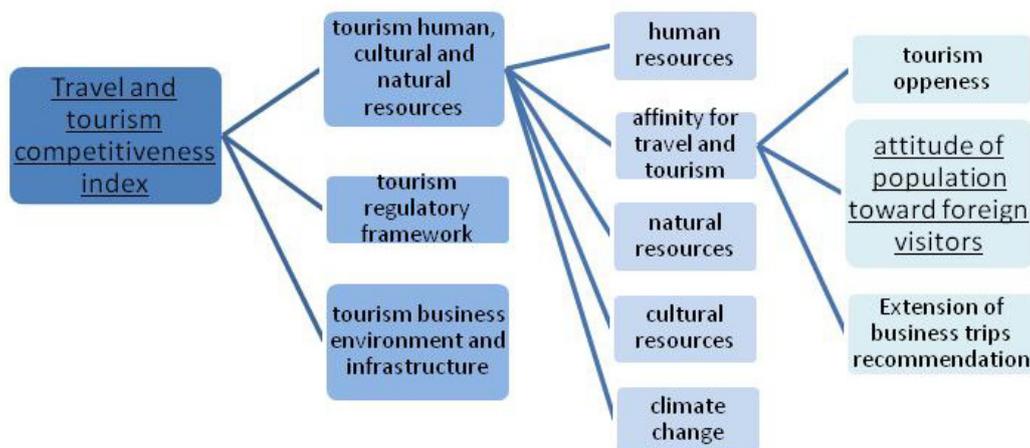


Figure 1. Travel and tourism competitiveness index variables



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Each of these elements is composed in turn by a number of aspects of tourism competitiveness. One of the aspects under tourism human, cultural and natural resources is affinity for travel and tourism, that is influenced by attitude of population toward foreign visitors, and that measures the extent to which a country and society are open to tourism and foreign visitors. It is clear that the general openness of the population to travel and to foreign visitors has an important impact on tourism destination competitiveness.

This way competitiveness measurement shows importance of local inhabitant attitude as part of influence on tourist experience and thus on destination competitiveness.

Table 1

Travel and tourism competitiveness index affinity variable

12 th pillar of travel and tourism competitiveness – Affinity for Travel & Tourism	Rank of Latvia as tourism destination out of 139 countries
Tourism openness	54
Attitude of population toward foreign visitors	130
Extension of business trips recommended	111

Above table shows the evaluation of competitiveness of Latvia as tourism destination from the point of view of affinity that is subanalysed by tourism openness, local people attitude and extension of business trips recommended. The lowest evaluation from tourism experts for Latvia is for local inhabitant attitude towards foreign tourists – rank 130 out of 139 destinations analysed. In competitiveness index affinity for travel and tourism pillars, in emerging economies rank among the top five positions worldwide – 1st Lebanon, 2nd Barbados, 3rd Albania, 4th Mauritius, 5th Cape Verde [3]. This evaluation is based on opinions of local tourism experts – but are there any other methods of attitude evaluation that can be useful for more detailed analyses and improvements for current situation in destination?

What is attitude and how it can be evaluated or measured? Description of attitudes from the point of view of human behaviour has been developed many decades ago. For example, Allport, as a classic early attitude researcher, defines attitude as a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related. [4] This very basic interpretation of attitude shows the need to analyse peoples responses to different situations related to researched subject. Over last two decades new implicit measures of attitudes have been developed that promises to access attitudes that respondents may not be willing to report directly or may not even be aware of them [5]. Qualitative research is generally used in circumstances where it is necessary to add understanding to quantitative results, to obtain overall background in a product or service category, or to provide in depth exploration of attitudes and opinions in relation to a category [6]. The method for more detailed and indirect attitude measurement is qualitative research – experiments and observations.

Attitudes are organised through experience and they are presumably formed through learning from a variety of experiences and influences. Our attitudes are shaped by the attitudes passed on by our culture and agents of socialization. Attitudes exert a dynamic



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influence on a person's response to objects, people, and situations, attitudes are directly related to our actions or behaviour. The attitudes we hold predispose us to act in positive or negative ways toward the objects of those attitudes. Most of attitudes can also be studied by measuring participants' physiological responses when answering questions about their attitudes, but the focus is not so much on the verbal reply as on the accompanying physiological arousal. Attitude researchers point out that any production of emotion by attitudes must be reflected in responses by the sympathetic nervous system, the body to respond to researched situations. For example, the facial muscles, particularly those around the eyes and mouth, appear to react quickly to emotional stimuli. The researcher would know there was a physiological response but could not be entirely sure of its cause. [7] Thus Bordens and Horowitz show the need for observation not only for verbal response, but also facial mimic reactions.

How can we evaluate attitude of local staff and inhabitants towards tourists as bases of measurement methodology? As stated before attitude can be evaluated as observation of verbal and non-verbal responses and reactions. The only question is – what kind of reactions of local inhabitants we need to evaluate. Author suggestion is to evaluate attitude using elements of quality measurement. The best-known instrument for measuring consumers' opinions of service quality is the Servqual instrument [8]. In classic quality analyses Servqual model as researched groups of elements are ten dimensions – tangible factors and intangible factors, like reliability, responsiveness, communication, security, competence, courtesy, credibility, understanding, access [9], that later were decreased to five dimensions [10]. Therefore the combination of the dimensions from different aspects of measuring service quality could increase the understanding of the quality construct for particular industry [11] thus for the evaluation of attitude we can use several qualitative dimensions:

- *Access* – Accessibility of the service provider [12]
- *Communication* – willingness to stop for a while and contribute some time for communication with foreign tourist and assistance,
- *Responsiveness* is the willingness to help participants and provide prompt attention [13], it can be seen as readiness of local inhabitants to respond to tourist questions and requests, offering personal attention and showing sincere interest,
- *Mutual understanding* – efforts by the service provider to know and understand the customer [14] that incorporates the foreign language knowledge on a level of basic communication in order to understand what tourist is asking and to respond in the way that tourist can understand the answer.
- *Competence* is capability of staff members in executing the service or tourist request [15], it comprises basic knowledge of information about their country, tourist attractions and services,
- *Credibility* can be described by trustworthiness and honesty [16], it means the reliability of services and information, answers to questions, indications, directions that are pointed to tourist,
- *Verbal and non-verbal courtesy or empathy* means understanding of specific needs, cultivation of friendly relationship [17]. Verbal and non-verbal courtesy of the response includes polite answer and smiling or positive mimic during the process of communication.



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3. Methodology

Experiment was conducted with help of 55 foreign students from Germany, France, Spain, Italy, Korea, Turkey, Switzerland, Poland, Czech Republic, Slovenia, Russia, Uzbekistan and other countries. Different students were participating in two directions of experiment – first direction was towards tourism related service staff service quality and attitude evaluation, the second direction was to evaluate local inhabitant attitude.

Task of students was to look like typical tourists – with the map and other typical tourist gadgets. By evaluating the service staff they needed to go to local tourism related establishments and ask there questions related to their business as quality dimension measurement as well as non-business related tourism question as attitude evaluation measurement. For second research direction students needed to approach every 5th inhabitant and ask the question about the location of popular tourist attractions – Freedom Monument, Dome Cathedral, Train station, closest toilets, etc. Communication language was English. Experiment was conducted during the period from November 2011 till March 2012.

Foreign students as tourists had to evaluate local inhabitant verbal and non-verbal communication expressions using criteria that is summarised in following table.

Table 2

Attributes/dimensions of attitude evaluation

Local inhabitant attitude evaluation	Willingness to assist (<i>communication</i>)	Personal attention, sincere interest (<i>responsiveness</i>)	Understanding the questions in English (<i>understanding</i>)	Clear answer to the questions in English (<i>understanding, competence</i>)	Correctness of answer (<i>competence, credibility</i>)	Politeness of answer (<i>verbal courtesy</i>)	Smiling during communication (<i>non-verbal courtesy</i>)
	Evaluation scale from 0 to 5 for each dimension						
	0 means no indication of attitude dimension						
	5 means excellent level of attitude dimension						

As in all experiments the evaluation is influenced by perception of the person observing. To minimise this personal perception influence, students had common instructions as well as they were conducting research in groups of 2 to 3 students. The most difficult evaluation is for non-verbal courtesy dimension and it is still partly subjective criteria. There can be used more precise techniques to measure smile with quantitative tools in facial mimic changes with video recording. For this specific experiment we used just evaluation from 0 with no changes in facial mimic, to 5 meaning smiling person.

4. Research Results

What is the attitude of local service staff towards foreign tourists? Tourism industry is very fragmentary and consists of many different sectors – main of them are accommodations, tourism transportation, tourism distribution or intermediates, attraction and destination organisation sector. Additionally to all these direct tourism sectors is a list of different business



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that are part of indirect tourism sector, that is used both by local inhabitants as well as foreign tourists. The purpose of this study is to analyse tourism related enterprises that are part of foreign tourism experience but are used by both segments of customers.

Table 3

Tourism related establishments included in experiment (N=79) divided by business

Type of tourism related establishment observed	Number of establishments	Share of establishments (%)
Cafes	15	19.0
Retail shop	19	21.1
Financial establishments	7	8.9
Museums	13	16.5
Souvenir shops	10	12.7
Kiosks	9	11.4
Art galleries	6	7.6
Total	79	100.0

Table 4

Study results on local service staff assistive cooperation towards foreign tourists evaluation of each type of establishment (N=79), evaluation scale from lowest 0 to highest 5

	If there is any employee (<i>accessibility</i>)	Willingness to assist (<i>communication</i>)	Personal attention, sincere interest (<i>responsiveness</i>)	Understanding the questions in English (<i>understanding</i>)	Clear answer to the questions in English (<i>understanding, competence</i>)	Correctness of answer for business related question (<i>competence, credibility</i>)	Correctness of answer for non-business related question (<i>competence, credibility</i>)	Politeness of answer (<i>verbal courtesy</i>)	Smiling during communication (<i>non-verbal courtesy</i>)
Average for all service establishments	3.8	3.5	3.3	3.4	3.4	3.6	3.1	3.2	3.0
Average for cafes	4.4	4.3	3.7	4.5	4.4	3.8	3.2	3.6	2.5
Average for retail shops	3.2	3.3	3.1	3.2	3.1	3.4	2.9	3.1	3.0
Average for financial establishments	4.4	3.6	3.1	3.1	3.0	3.1	3.7	3.4	3.7
Average for museums	3.2	2.9	3.2	2.8	2.5	2.3	2.5	2.6	3.0
Average for souvenir shops	4.9	3.4	3.2	3.7	4.3	4.7	4.1	3.6	3.2
Average for kiosks	4.0	3.6	3.1	2.9	2.8	5.0	2.4	3.1	2.9
Average for galleries	3.1	3.6	3.5	3.5	3.3	3.3	3.5	3.3	3.7



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All types of establishments were situated in centre of Riga. The highest evaluation was for the accessibility of the staff in the establishments after the entrance of the tourist; still in big part of the retail shops and art galleries sales-man were not present in main hall.

The lowest evaluation was for the non-verbal courtesy – smiling.

Foreign students were surprised that they were not approached by the service staff and even in some of the experiments they waited for 20 or 30 minutes and shop-assistants still were just talking with each other and not asking the magic phrase “how can I help you”.

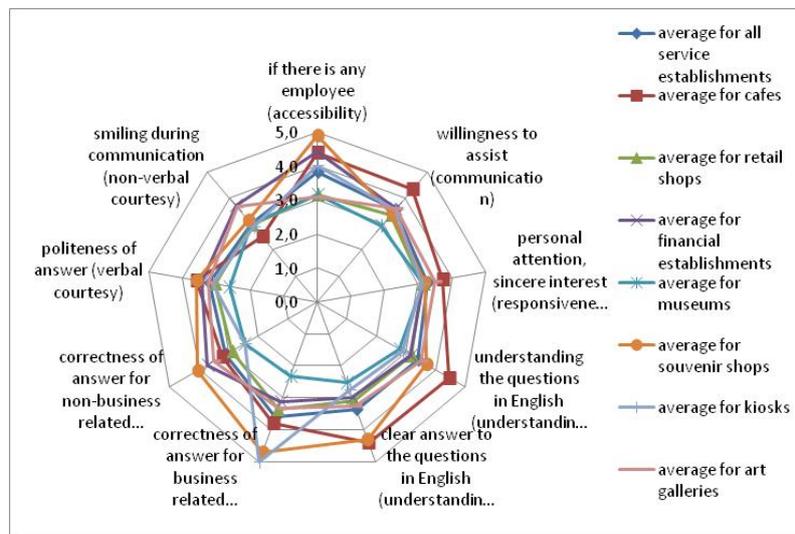


Figure 2. Study results on local service staff assistive cooperation towards foreign tourists evaluation of each type of establishments and each attitude dimension (N=79), evaluation scale from lowest 0 to highest 5.

Few comments for each of surveyed establishments – there were no correlations between sold good quality level and knowledge of foreign language in retail shops, the best foreign language skills are in international chain shops. Cafes and other food and beverage establishment staff are very helpful and with good language skills, but the information that is given is incomplete and sometimes misleading. Banks and currency exchange offices staff was very helpful and in case of shortage of knowledge of foreign language were trying to use a mix of different languages – English, Russian, and German. In souvenir shops was surprisingly low personal interest in approaching the customers but all the inquiries asked were clear to personnel and they were able to explain necessary matters. In kiosk sector there was very different situation for 2 main kiosk operators both for language skills and courtesy. Generally the lowest average staff attitude evaluation was in museums because of poor language skills, low willingness to assist and lack of courtesy. The most assistive was staff of souvenir shops and cafes.

What is perception of local inhabitants from the point of view of foreign tourists? Before the evaluation of each attitude dimension, the overall results show that 17% of local inhabitants when approached and asked by foreign tourists do not communicate and continue to walk further with no communication nor assistance. So it means that every fifth or sixth inhabitant just passes by indifferently.



Table 5

Study results on local inhabitant assistive cooperation towards foreign tourists (N=328)

Assistive cooperation/ attitude	No.	Percent
No assistive cooperation	59	17.00%
Assistive cooperation	279	83.00%

17% percent is not a highly negative indication of local inhabitants that did not want to assist or help to the foreign students, but this kind of negative incident has influence on tourist common travel experience and willingness to return.

Next part of experiment that needs to be analysed are particular aspects of communication that reflect local inhabitant readiness for assistive cooperation with foreign tourists.

Foreign students especially from south of EU where astonished by the level of English language knowledge of local inhabitants. Their evaluation of home country English language knowledge was much lower. The next over average results was related to verbal courtesy that means the politeness of local inhabitants. Foreign students described that part of local inhabitants were ready to give personal attention and showed sincere interest, but part of inhabitants showed a formal politeness. The lowest average attitude indication was for non-verbal courtesy that in this experiment was evaluated by smiling.

Table 6

Study results on local inhabitant assistive cooperation towards foreign tourists evaluation of each attitude dimension (N=328), evaluation scale from lowest 0 to highest 5

Local inhabitant attitude evaluation (overall, by gender)	Willingness to assist (communication)	Personal attention, sincere interest (responsiveness)	Understanding the questions in English (understanding)	Clear answer to the questions in English (understanding, competence)	Correctness of answer (competence, credibility)	Politeness of answer (verbal courtesy)	Smiling during communication (non-verbal courtesy)
Overall average, N=328	3.15	2.98	3.15	2.79	2.92	3.09	2.61
Median, N=328	4	3	4	3	4	4	3
Mode, N=328	5	5	5	5	5	5	0
Average male, N(m)=153	2.94	2.83	3.23	2.83	2.8	2.87	2.25
Average female, N(f)=175	3.3	3.11	3.09	2.76	3.02	3.29	2.92

Splitting the research results by gender, we can conclude that female average results were higher than for men for most of dimension except English language skills where average results for men was higher. The biggest difference was for non-verbal courtesy since male inhabitants do not smile as much as female.



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Foreign students evaluated the non-verbal courtesy with lowest values and indicated it as the biggest problem. They realised how depressed and despondent are local inhabitants even when talking to other people. Missing of positive non-verbal courtesy creates corresponding destinations image – country with unhappy local inhabitants that would not stimulate tourists to come to this country again or to recommend it to other potential foreign tourists.

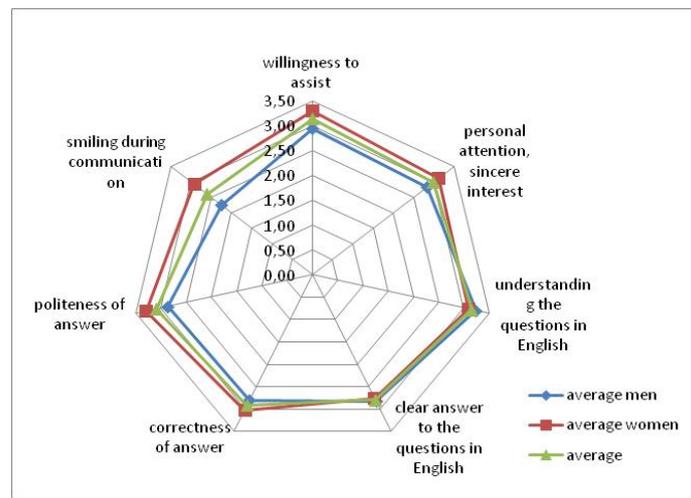


Figure 3. Study results on male and female inhabitants' assistive cooperation towards foreign tourists (N=328), evaluation scale from lowest 0 to highest 5.

The radar graph shows the significance of difference in results for both male and female inhabitants.

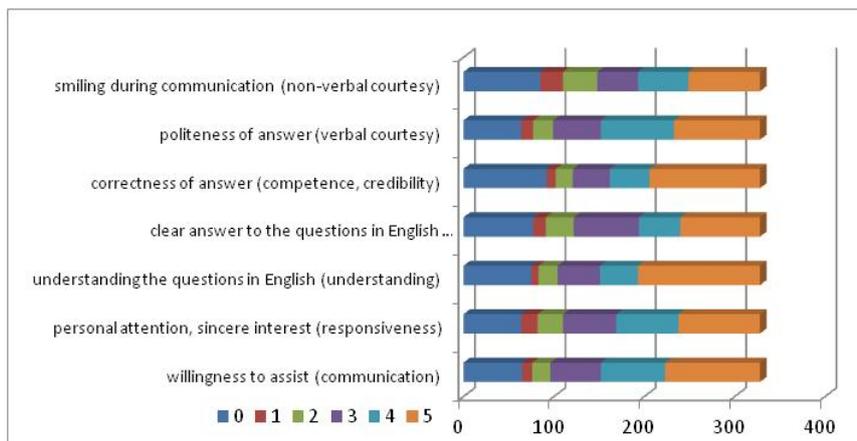


Figure 4. Study results on local inhabitants' assistive cooperation towards foreign tourists evaluation of each attitude dimension (N=328) with each evaluation scale level from lowest 0 to highest 5.



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Analysing each dimension evaluation scale results – we can see dominance of the high evaluation (value 5) in all dimensions except non-verbal courtesy, that has even mode 0.

Importance of local people attitude is at least partly recognised in many countries, including UK. British customer service expert has warned residents that a change of attitude is needed and will have to happen now if the country's tourism industry is to survive [18]

5. Discussion and Conclusion

Experiment as qualitative research method is useful tool for attitude evaluation towards foreign tourist both for service staff evaluation as well as of local inhabitants.

Study of tourism related enterprises shows that the lowest average staff attitude evaluation was in museums because of poor language skills, low willingness to assist and lack of courtesy. Average level of assistive cooperation was in retail shops, banks, currency exchange offices, art galleries and kiosks. The most assistive staff is in souvenir shops and cafes.

Evaluation of local inhabitants show that almost four out of five local inhabitants are ready to assist foreign tourists. 17% of local inhabitants have no assistive cooperation towards tourists, meaning that every fifth or sixth inhabitant just passes by indifferently when approached by foreign tourist with request for help. Foreign tourists are quite impressed by the level of English language knowledge of local inhabitants. Next positive evaluation of attitude dimensions is verbal courtesy – politeness of local inhabitants. The lowest attitude indication was for non-verbal courtesy that in this experiment was evaluated by smiling. Splitting the research results by gender, we can conclude that female average results were higher than for men for most of dimensions except English language skills. The biggest rating difference was for non-verbal courtesy since male inhabitants do not smile as much as female. Foreign students evaluated the non-verbal courtesy with lowest values and indicated it as the biggest problem. They realised how depressed and despondent are local inhabitants even when talking to other people.

Lack of positive non-verbal courtesy creates corresponding destinations image – country with unhappy local inhabitants. Such destination perception would not stimulate tourists to come to this country again or to recommend it to other potential foreign tourists.

It is quite easy to give recommendation for tourism related services providers as staff education together with control system will give positive results. Introduction of Q-Latvia quality system for service sector establishments is system that helps both for manager education, staff education as well as staff control duties.

The process of changes in local inhabitant attitudes is quite slow and difficult work. Most successful instrument would be activities of professional tourism NGOs promoting the importance of tourism as export sector as well as explaining the tourist experience through social and cultural dimensions.

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THEORIES OF OPTIMAL CAPITAL STRUCTURE: ASSESSMENT AND APPLICATION

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Abstract

The article studies theories of optimal capital structure – the traditional viewpoint, Modigliani-Miller theorem, pecking order theory, trade-off theory, agency theory and market timing theory. The author analyses and assesses the theories, evaluates their implementation and application possibilities in Latvian enterprises. Implementation of the trade-off theory and pecking order theory of capital structure is more likely to be observed in the larger enterprises of the respective industry. However, the loan market was hot-market from 2004 to 2008 and the management of the enterprises used the favourable situation and raised capital.

Introduction

Enterprise financing is one of the most studied topics in corporate finance, because an accurately estimated and selected equity and debt ratio can maximize the company value and minimize the cost of capital. In recent decades, several theories have been defined in corporate finance that determine the principles according to which enterprises choose their capital structure. In a sense, each of these theories concentrates on one or several factors that influence the capital structure, assuming other conditions remain constant. Although compliance tests have been made in various countries and various industries, there are still many unanswered questions and problems.

In the paper, several theories of optimal capital structure are reviewed, each of them has its supporters and critics; however none of them has established itself as a distinct leader: trade-off theory, pecking order theory, market timing theory, agency theory, free cash flow theory etc.

The **purpose of the paper** is to analyse and assess the theories of optimal capital structure, as well as to evaluate their implementation and application possibilities in Latvian enterprises.

The **object of the research** is the theories of capital structure.

The **tasks of the paper** are as follows:

- To analyse the theoretical points of view on theories of optimal capital structure;
- To overview the results of previous research made in this field;
- To evaluate the application of the theories in Latvian enterprises.



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The research methods used in the paper include the monographic method, analysis and synthesis of scientific literature, deduction and induction as well as the graphical method.

The paper uses mostly research papers that were published in scientific journals – both the fundamental papers (Modigliani and Miller, 1958 and 1963; Kraus and Litzenberger, 1973; Jensen, 1986; Baker and Jeffrey, 2002; Miller, 1977, Myers and Nicolas, 1984), as well as recent (empirical) research (De Medeiros and Daher, 2005, Sanchez-Vidal and Martin Ugedo, 2005, Frank and Goyal, 2003; Cotei and Farhat, 2009; Lopez-Gracia and Sogorb-Mira, 2008; Graham, 2002; Alti, 2006, and others). Statistical data from the Central Statistical Bureau of the Republic of Latvia, the Stock Exchange NASDAQ OMX Riga and the Financial and Capital Market Commission is used, as well.

The current financial crisis once again forces an overview of the capital structure theories, because many problems of the companies were caused by their capital structure policy and strategy. In finance literature, there are several capital structure theories, each of them has its supporters and critics; however none of them has established itself as a distinct leader: trade-off theory, pecking order theory, market timing theory, agency theory etc. In a sense, each of these theories concentrates on one or several factors that influence the capital structure, for example, the trade-off theory places emphasis on taxes, the pecking order theory – on information, etc.

The Traditional Viewpoint

The traditional viewpoint on capital structure emphasises the benefits of debt capital (it is relatively cheap compared to equity capital); therefore, the value of the firm increases with the increase in leverage up to a certain point (particular leverage). After this point, the weighted-average cost of capital (WACC) once again starts to increase and the value of the firm decreases.

The assumptions are [1, 288]:

1. No taxes, corporate or personal;
2. 100% dividend distribution;
3. A no-growth enterprise (i.e. a given investment strategy);
4. Only debt and equity used in the capital structure;
5. No transaction costs, including those involved with a default of the issued bonds (bankruptcy costs);
6. Constant business risk over time (i.e. the expected value and variance of EBIT is constant);
7. The increase/decrease in gearing occurs through the simultaneous issue and retirement of securities (i.e. an issue of equity is matched by a retirement of debt).

Starting from a 100% equity capital structure, there are three stages in the market reaction to the increase of leverage (Figure 1):

- Stage 1. The use of low-cost debt more than offsets the increase in the equity capitalization rate. The cost of equity rises because of the financial risk the leverage brings. The bond-holders, too, are unlikely to require an increase in their coupon rates for the modest increase in leverage and if it increases, it will do so only marginally. The overall effect then is that WACC will fall and the market value of the enterprise will rise;



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- Stage 2. The enterprise has now attained a degree of leverage, and as this increases further, the additional financial risk requires the cost of equity to rise, but now the bond-holders require additional compensation in the form of higher coupons and a discount on the issue of the bond. If the relative cheapness of the debt is still able to cancel out the additional financial risk, then we can have a constant WACC. However, this may not be the case and the WACC may have a unique minimum. In this latter case, stage 2 does not really exist and the enterprise moves from stage 1 to stage 3;
- Stage 3. Leverage increases even further, the WACC increases and the value of the enterprise decreases [1, 288-290].

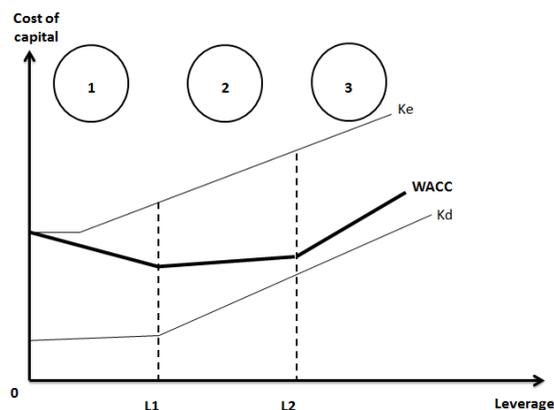


Figure 1. Traditional approach to capital structure; cost of capital of the enterprise for different levels of leverage [1, 289]

Modigliani-Miller Theorem

It is widely considered that the modern theory of capital structure began with the paper by Modigliani and Miller (1958) on the conditions of capital structure irrelevance. The Modigliani and Miller (MM) approach supported the view that in a perfect capital market the market value of any firm is independent of its capital structure [2].

Assumptions [2]:

- All investors are price-takers, i.e. no individual can influence market prices by the scale of his or her transactions;
- All market participants, firms and investors, can lend or borrow at the same risk-free rate;
- There are neither personal nor corporate income taxes;
- There are no brokerage or other transactions charges;
- Investors are all rational wealth-seekers;
- Firms can be grouped into „homogenous risk classes”, such that the market seeks the same return from all members (firms) in each group;
- Investors formulate similar expectations about future company earnings. These are described by a normal probability distribution;
- The assets of an insolvent firm can be sold at full market values.



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The MM approach was presented as three prepositions [2]:

Preposition I. The market value of any firm is independent of its capital structure and is given by capitalizing its expected return at the rate k_e appropriate to its class. That is, the average cost of capital to any firm is completely independent of its capital structure and is equal to the capitalization rate of a pure equity stream of its class.

Preposition II. The expected yield of a share of stock is equal to the appropriate capitalization rate r_e for a pure equity stream in the class, plus a premium related to financial risk equal to the debt-to-equity ratio times the spread between k_e and k_d .

Preposition III. The cut-off point for investment in the firm will in all cases be k_e and will be completely unaffected by the type of security used to finance the investment.

In 1963, both authors included the corporate tax in their theorem [3]. Since interest payments on debt can be qualified as an expense, the use of debt reduces the amount of tax. The reduction in the tax lowers the cost of capital (Figure 2). Overall, this approach is similar to the traditional viewpoint (stage 1), however MM approach does not have an optimal point of leverage, where the WACC is minimized and the enterprise value is maximized.

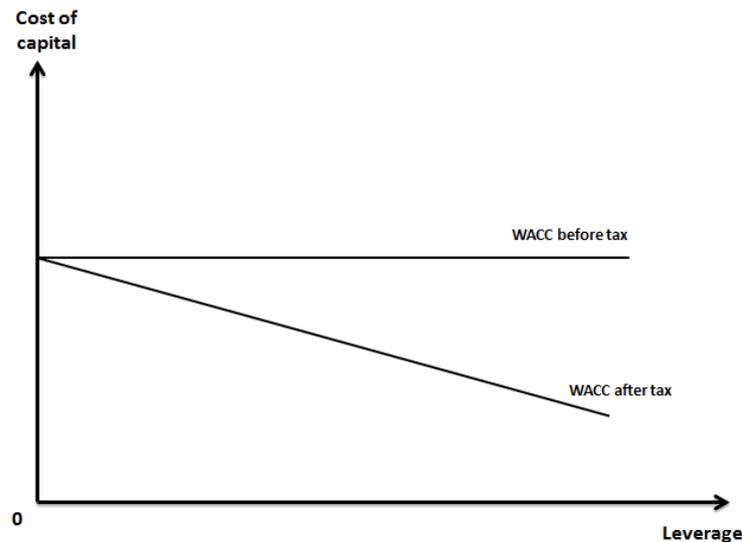


Figure 2. The MM approach before and after tax [1, 296]

One must take into account that this does not imply that the firm should rely completely on debt (since it is cheaper and gives tax shield). At a certain point the value of the enterprise starts to decrease because of the costs of financial distress (Figure 3). Costs of financial distress are the costs arising from bankruptcy or distorted business decisions before bankruptcy [4, 409]. Therefore, to sum up, the use of tax shield (tax benefits) increases the value of the enterprise, however as leverage increases, the enterprise faces the costs of financial distress and this in turn decreases the value of the enterprise. Overall, it can be concluded that an optimal capital structure is reached if the marginal benefit of tax shield equals the marginal cost of financial distress.

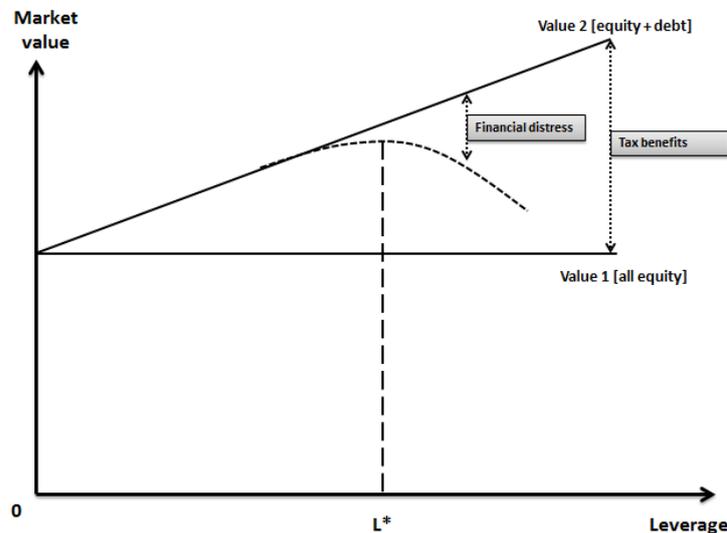


Figure 3. The MM approach after tax (but with bankruptcy costs) [1, 297]

It is the most common argument that „While the Modigliani-Miller theorem does not provide a realistic description of how firms finance their operations, it provides a means of finding reasons why financing may matter.” [5] Modigliani & Miller theorem also influenced the development of the pecking order theory and the trade-off theory.

Pecking Order Theory (Donaldson, 1961; modified by Myers and Majluf, 1984). The theory states that companies prioritize their sources of financing – at first they prefer to use internal funds, then to borrow, and at last to issue equity as a last resort [6].

The reason for this order is the information asymmetry – managers know more about the firm’s performance and prospects than outsiders. Managers are unlikely to issue company shares when they believe shares are „undervalued”, but more inclined to issue shares when they believe they are „overvalued”. Shareholders are aware of this likely managerial behaviour and thus regard equity issues with suspicion. For example, they may interpret a share issue as a signal that management think the shares are overvalued and mark them down accordingly – a very common occurrence – thereby increasing the cost of equity. Investors would expect managers to finance investment programmes, first, using internal resources, second, via borrowing up to an appropriate debt/equity combination, and finally through equity issues. [7, 505].

There is no clear target debt-equity mix. The pecking order explains why the most profitable firms generally borrow less; it is not because they have low target debt ratios but because they don’t need outside money. Less profitable firms issue debt because they do not have sufficient internal funds for their capital investment programme and because debt is first in the pecking order for external finance. The pecking order theory does not deny that taxes and financial distress can be important factors in the choice of capital structure. However, the theory says that these factors are less important than managers’ preference for internal over external funds and for debt financing over new issues of common stock [4, 415].



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The theory has been extensively tested. De Medeiros and Daher (2005) tested the pecking order theory of capital structure in Brazilian firms. It was concluded that in its weak form the theory is applicable to Brazilian firms, but not the strong form [8]. Sanchez-Vidal and Martin-Ugedo (2005) used a panel data analysis of 1 566 firms over the period of 1994-2000 in the Spanish market; the results show that the pecking order theory holds for most subsamples analyzed, particularly for the small and medium-sized enterprises and for the high-growth and highly leveraged companies [9]. Frank and Goyal (2003), on the other hand, concluded that internal financing is not sufficient to cover investment spending on average, external financing is heavily used and debt financing does not dominate equity financing in magnitude. Net equity issues track the financing deficit quite closely, while net debt does not do so. When narrower samples of firms are considered, the greatest support for the pecking order is found among large firms in earlier years (tested period 1971-1998). Over time, support for the pecking order declines [10].

Overall, it can be concluded that the pecking order theory most likely will be observed in large enterprises. There are two reasons for that: 1) large enterprises have more possibilities and a wider choice in raising funding compared to small and microenterprises; 2) the role of information asymmetry most likely will be more expressed in large enterprises. Since in Latvia, in 2010, only 0.3% (out of total number of enterprises) [11] were large enterprises¹, the author of the paper induces that the pecking order theory is unlikely to be applicable to Latvian enterprises, however if analyzed only large enterprises – they could support this theory.

The Trade-off Theory. The theory states that an enterprise chooses debt and equity mix by balancing the benefits and costs of debt. If the enterprise increases its leverage, the tax benefits of debt increase, as well. At the same time, the costs of debt also rise (both, the bankruptcy costs of debt and the non-bankruptcy costs of debt).

The original version of the trade-off theory grew out of the debate over the Modigliani-Miller theorem. When corporate income tax was added to the original irrelevance, this created a benefit for debt in that it served to shield earnings from taxes [5]. Kraus and Litzenberger (1973) formally introduced the tax advantage of debt and bankruptcy penalties into a state preference framework. Both authors stated that the market value of a levered firm equals the unlevered market value, plus the corporate tax rate times the market value of the firm's debt, less the complement of the corporate tax rate times the present value of bankruptcy costs [12].

Trade-off theory predicts that target debt ratios will vary from firm to firm. Companies with safe, tangible assets and plenty of taxable income to shield ought to have high target ratios. Unprofitable companies with risky, intangible assets ought to rely primarily on equity financing. The trade-off theory successfully explains many industry differences in capital structure. On the other hand, there are other things the trade-off theory cannot explain. It cannot explain why some of the most successful companies thrive with little debt. An odd fact about real-life capital structure: the most profitable companies generally borrow the least. Here the trade-off theory fails, for it predicts exactly the reverse [4, 414].

¹ In compliance with Recommendation No 361 of the European Commission dated 6 May 2003, the economically active market sector statistical unit's size group – large – is with the number of employees of 250 and more, or with annual net turnover above LVL 35.1 million, or with the balance-sheet total exceeding LVL 30.2 million.



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According to Myers (1984), a firm that follows the trade-off theory sets a target debt-to-value ratio and then gradually moves towards the target. The target is determined by balancing debt tax shields against costs of bankruptcy. Frank and Goyal (2007) break Myers' definition into two parts:

Definition 1 [the static trade-off theory] – A firm is said to follow the static trade-off theory if the firm's leverage is determined by a single period trade-off between the tax benefits of debt and the deadweight costs of bankruptcy.

Definition 2 [target adjustment behaviour] – A firm is said to exhibit target adjustment behaviour if the firm has a target level of leverage and if deviations from that target are gradually removed over time [13].

This theory also has been widely tested. Cotei and Farhat (2009) concluded that the pecking order theory and the trade-off theory are not mutually exclusive. For example, firms below their target leverage with high information asymmetry are most likely to issue debt, given that they have a high debt capacity, thus, accelerating their rate of adjustment. If these firms have a rising stock price, managers find themselves better off issuing equity, even though this decision leads to a temporary deviation from the target leverage [14]. Lopez-Gracia and Sogorb-Mira (2008) used panel data on a sample of 3 569 Spanish SMEs over a 10-year period from 1995 to 2004. Results obtained suggest that both theoretical models help to explain SME capital structure. Despite finding clear evidence that SMEs follow a funding source hierarchy, results reveal that greater trust is placed in SMEs that aim to reach target or optimum leverage [15]. Ju, Parrino, Poteshman and Weisbach (2005) develop a model of optimal capital structure in which the major forces affecting firm's financing decisions are corporate taxes and bankruptcy costs. The authors calculate closed-end solutions for important quantities in this model, calibrate it using recent market data, and solve for the optimal capital structure. In contrast to most of the literature, the authors find that the trade-off model does not predict that firms are underlevered. For a hypothetical firm, constructed to be typical of large, publicly traded companies, the model predicts a leverage ratio less than the actual sample median – the predicted ratio of debt to total capital is 15.29 % compared to a sample median of 22.62 % [16].

Once again, the author of the paper believes that it is unlikely that the trade-off theory works in Latvian SMEs. The key idea of the trade-off theory is the trade-off between the tax benefits and the costs of financial distress. Consequently, the effect of tax shield will be more felt in large enterprises with relatively large loans and interest payments. It is consistent with the survey done by Graham (2002), where as the most important factor that affects the decision to issue debt was stated the financial flexibility, and interest rate tax savings was only the 6th most important factor [17].

Agency Costs

Agency costs arise because the interests of the firm's financial managers and its shareholders are not aligned. Myers (2001) reviews two kinds of agency costs – agency costs can be triggered by conflicts between financial manager and shareholders and also between debt and equity investors. As Myers points out, conflicts between debt and equity investors only arise when there is a risk of default. Shareholders can gain at the expense of debt investors; the manager can transfer value from the firm's creditors to its stockholders. Conflicts between



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managers and stockholders originate because managers will act in their own interests (it can be redirected by several instruments, but perfect alignment still is not possible) [18].

The theory of agency costs (Jensen, 1986) explains the benefits of debt in reducing agency costs of free cash flows and how debt can substitute for dividends. Managers with substantial free cash flow can increase dividends or repurchase stock and thereby pay out current cash that would otherwise be invested in low-return projects or wasted. Debt creation, without retention of the proceeds of the issue, enables managers to effectively bond their promise to pay out future cash flows. Thus, debt can be an effective substitute for dividends. By issuing debt in exchange for stock, managers are bonding their promise to pay out future cash flows in a way that cannot be accomplished by simple dividend increases. Thus debt reduces the agency costs of free cash flow by reducing the cash flow available for spending at the discretion of managers. These control effects of debt are a potential determinant of capital structure. Increased leverage also has costs. As leverage increases, the usual agency costs of debt rise, including bankruptcy costs. The optimal debt-equity ratio is the point at which firm value is maximized, the point where the marginal costs of debt just offset the marginal benefits [19].

Childs and Mauer (2008) used a dynamic continuous-time model of investment risk choice and the model predicts that the agency costs of equity will be much larger than the agency costs of debt. It was also concluded that managerial risk-aversion sharply decreases the agency costs of equity and a positive relation between leverage and agency costs of equity is suggested as well [20].

The author of the paper agrees that financial manager plays a significant role in estimating the capital structure. The capital structure depends on manager's goals (are they aligned with owner's goals?), education and other characteristics. However, it can be very difficult to test this theory in practice. All in all, agency costs are an important factor in the determination of capital structure.

Market Timing Theory

Firms tend to issue equity instead of debt when the market value is high and repurchase equity when the market value is low. Baker and Jeffrey (2002) state that the capital structure depends strongly on past market valuations as measured by past market-to-book ratios. In other words, capital structure is the cumulative outcome of past financing decisions. Past financing decisions depend strongly on past market valuations. Therefore, capital structure depends strongly on past market valuations. They developed a theory of capital structure based on market timing. Managers issue equity when they believe it is overvalued and repurchase equity or issue debt when they believe it is undervalued. Since there is no optimal capital structure, managers do not need to reverse their decision in later periods when they believe that the firm is correctly valued. This means that temporary fluctuations in valuation have permanent effects on capital structure [21].

Alti (2006) found that hot-market IPO firms issue substantially more equity, and lower their leverage ratios by more than cold-market do. However, immediately after going public, hot-market firms increase their leverage ratios by issuing more debt and less equity relative to cold-market firms. At the end of the second year following the IPO, the impact of market timing on leverage completely vanishes [22]. Bougatenf and Chichti (2010) also find that Tunisian and



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French listed firms tend to issue equity when their market valuations are relatively higher than their book values and after improvement of the market performance. As a consequence, these firms become underleveraged in the short-term and this impact of equity market timing on capital structure persists beyond eight years [23]. De Bie and De Haan (2007) also support the theory – their research results yield evidence of market timing. However, in contrast to the existing evidence for US firms, they did not find persistent effects of market timing on capital structures of Dutch firms [24].

In Latvia, stock and securities markets are not very active. Since 2000, a persistent decrease of the number of listed companies, as well as the total turnover of stock markets has been observed, and also the total turnover of debt securities has been slowly but steadily decreasing since 2007 [25]. However, the loan market was hot-market from 2004 to 2008 (the amount of disbursed loans increased rapidly) [26]. The accession to the European Union, the rapid increase of lending, comparatively low interest rates and other factors facilitated the growth of the debt ratio in the enterprise capital structure. In other words, the loan market became hot and the management of enterprises used the favourable situation and raised capital.

Concluding Remarks

There are other theories, theorems, models and hypotheses that help to explain the capital structure and find the optimum. Frank and Goyal (2005) divide the theories into four groups [13]:

- A first kind of theories represent a point of view – a set of principles that guide the development of specific models and tests;
- A second kind of theories are illustrative – shows how a certain idea can be expressed in a coherent manner;
- A third kind of theory is a unifying model – presented as a means of tying together a variety of observations in a coherent manner;
- A fourth kind of theory is normative model – intended to offer advice to someone.

In this paper, the most common theories of capital structure found in finance literature were reviewed. However, there are other rather minor theories and hypotheses on capital structure, for example, Miller (1977) proposed the neutral mutation hypothesis that states that firms fall into different habit of financing which does not have an impact on the value [27].

Conclusions

The traditional viewpoint on capital structure emphasises the benefits of debt capital (it is relatively cheap compared to equity capital); therefore, the value of the firm increases with the increase in leverage up to a certain point (particular leverage). After this point, the weighted-average cost of capital (WACC) once again starts to increase and the value of the firm decreases.

It is widely considered that the modern theory of capital structure began with the paper by Modigliani and Miller (1958) on the conditions of capital structure irrelevance. The Modigliani and Miller (MM) approach supported the view that in a perfect capital market the market value



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of any firm is independent of its capital structure. Modigliani & Miller theorem also influenced the development of pecking order theory and trade-off theory.

Overall, it can be concluded that the pecking order theory most likely will be observed in large enterprises. There are two reasons for that: 1.) large enterprises have more possibilities and a wider choice in raising funding compared to small and microenterprises; 2.) the role of information asymmetry most likely will be more expressed in large enterprises. Since in Latvia, in 2010, only 0.3% (out of total number of enterprises) [11] were large enterprises, the author of the paper induces that the pecking order theory is unlikely to be applicable to Latvian enterprises, however if analyzed only large enterprises – they could support this theory. The trade-off theory is also unlikely to be supported in Latvian SMEs. The key idea of the trade-off theory is the trade-off between the tax benefits and the costs of financial distress. Consequently the effect of tax shield will be more felt in large enterprises with sizeable borrowing and interest payments. It is consistent with the survey done by Graham (2002), where as the most important factor that affected the decision to issue debt was financial flexibility, and interest rate tax savings was only the 6th most important factor.

Financial manager plays a significant role in estimating the capital structure. The capital structure depends on manager's goals (are they aligned with owner's goals?), education and other characteristics. However, it can be very difficult to test this theory in practice. All in all, agency costs are an important factor in the determination of capital structure.

In Latvia, stock and securities markets are not very active. However, the loan market was hot-market from 2004 to 2008 (the amount of disbursed loans increased rapidly). The accession to the European Union, the rapid increase of lending, comparatively low interest rates and other factors facilitated the growth of the debt ratio in the enterprise capital structure. In other words, the loan market became hot and the management of enterprises used the favourable situation and raised capital.

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TRUST AND KNOWLEDGE SHARING WITHIN ORGANISATIONAL CONTEXT

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Abstract

Nowadays in many organisations knowledge is viewed as crucial strategic factor in gaining competitive advantage. This article focuses on the process of knowledge sharing as part of creating new knowledge in organisations. Knowledge sharing is determined to a large extent as social interaction between individuals and groups. Therefore, the concept of trust cannot be neglected in the knowledge sharing research. This article investigates into the concept of trust from the theoretical point of view in order to develop understanding about what kind of role trust plays in the process of knowledge sharing. This paper begins with discussion of the term trust and further classification of trust in the knowledge sharing process. Then, it examines existing thresholds of trust and the concept of risk referring to the potential for giving benefit without receiving something similar valued in return. Furthermore, the trust-building process and in particular the process of making decision to trust is focused on. Finally, the paper discusses the question to what extent the mechanism of trust have an effect on encouraging knowledge sharing within organisational context.

Introduction

The concept of trust has become the focus of interest in a range of social science disciplines and economic discussions. F. Fukuyama [1] considers that higher level of trust in society leads to increasing welfare; he concludes that if mistrust starts to prevail in a society, this is equal to introduction of additional tax on all forms of economic activities so that transaction costs increase. Financial markets call for trust to the management which is reflected in the price of shares. On the other hand financial globalisation and rapid pace of technology development have integrated the world towards knowledge economy and led to increasing uncertainty in the economies and societies. In organisations trust is supposedly said to be the



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crucial basis for enabling flexible organisational structures, knowledge sharing, faster reaction onto the market and customers, employee engagement, cooperation and so forth. However, in practice trust is not so present in everyday activities of organisations. It seems, as R. Sprenger [2] concludes, that one starts to speak about trust when it is missing. In this context the question arises, what is the role of trust responding to dynamic environment and facilitating intra-organisational knowledge sharing?

Knowledge has become a strategic organisational resource for maintaining competitive advantage presently and in the future. In large and modern organisations such as virtual organisations and networks success especially goes along with organisation's ability to utilise and share intra-organisational resources – in particular knowledge – more efficiently than it would be possible though external market mechanisms [3, 4].

Organisation is not only an economic and technical, but primarily a social institution. In organisations social relationships are based on structures of mutual dependence which makes the actors vulnerable to each other's actions. In this context the process of knowledge sharing reflects an inherently risky situation. The practice shows that employees are rarely willing to share their knowledge with others. Various reasons are possible as for example the sharer is afraid to reduce his power or feels the risk of being replaceable. In other words employees would share their knowledge if they could be certain that there is no danger for them. The question is to what extent the mechanism of trust can make an effect on encouraging knowledge sharing.

Defining the Term Trust

Any literature review reveals many different views and dimensions of trust. However, there is still lack of consensus about what actually trust is, and undefined term cannot become a useful instrument for further research. Therefore, here we investigate how trust can be defined within organisational context.

Trust is a social common phenomenon. The existence of trust is considered to be a crucial component of social relationships [e.g. 5, 6, 7, 8] and thus trust is a close associate of social capital (e.g. 9, 10, 11, 12).

The notions of risk and uncertainty as well as the notion of vulnerability are central to the most of the concepts of trust are [6, 13, 14]. Rousseau et al. [14, p. 398] define trust as a 'psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour for another'. In the management literature an often cited definition of trust is given by Mayer, Davis, Schoorman [6, p. 712] in which trust is defined as 'the willingness of a party to be vulnerable to the actions of another party on the expectation that the other will perform a particular action important to the truster, irrespective of the ability to monitor or control that other party'. A definition given by Zaheer et al. [8, p. 141-143] highlights that trust is an expectation that a partner can be relied on concerning his obligations, predictability of his or her behaviour and fairness in negotiations and actions if opportunistic behaviour is theoretically possible.

Luhmann [13, pp. 9-10] argues that the concept of trust is closely connected with the issue of time. In fact, the human being is not able to be sure about what will happen, i.e. the future keeps uncertain. Nevertheless, the human being needs to reduce the complex future back



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to the present in order of being able to act. This point allows him or her looking further at the aspects of certainty versus uncertainty. Uncertainty can be classified further into objective exogenous and subjective endogenous uncertainty [15, p. 56]. While the objective exogenous uncertainty lies in the randomness of happenings and reflects environmental uncertainty, the subjective endogenous uncertainty concerns happenings caused by actor's behaviour and occurs by mistake. In regard to organisations the latter (behaviour) uncertainty appears especially during interpersonal interactions and it is connected with a risk, because the actors have a free choice of behaviour meaning that actor A cannot be completely certain about the mode of behaviour of the actor B. This risky situation let the actor A feel uncertain.

In general risk refers to the potential for giving benefit to another without receiving something similar valued or expected in return. Hypothetically, if there is an assumed entire rationality that there would be no possibility of doing a mistake (subjective uncertainty), then the risk is absent, therefore there is no vulnerability and thus trust is irrelevant. For example, an actor or institution cannot possess all and true information about the whole situation, therefore the notion of uncertainty and risk is always present. Missing information can be for example about the trustee's intentions or past behaviour. Consequently we assume that bounded rationality of actors is a prerequisite of capturing trust. The notion of bounded rationality is based on the New institutional economics (Coase 1930s, Williamson 1970s). Moreover, the possibility of opportunistic behaviour is a prerequisite of a risky situation. If there's no confidence about not being harmed, then an individual would prefer to control the possible events in advance instead of trusting others which in his or her opinion may bring serious trouble.

From those explanations it is possible to extract the following characteristics of trust: at first, trust is based on an individual's expectation that the counterpart will behave in well-being and interest or at least will not be harmful. This expectation considers bounded rationality and involves an internal feeling, but it also reflects social connections of a person with others and his or her understanding of the environment. Secondly, the revealed degree of trust changes depending on the context where the individuals can reveal it [16, 17]. Finally, trust displays itself when an opportunity of doing harm is present, and presupposes the conflict of interests in the environment as well as the conflict inside of an individual¹.

Classification of Trust

In organisational context trust has many dimensions; however, trust can be classified according to the objective of trust: personal trust and system trust.

The level of **personal trust** in the relationship between two parties is commonly viewed as a function of two factors: the perceived trustworthiness of the trustee and the truster's general propensity to trust others [6, p. 2, 19, p. 709-712]. The truster's general propensity to trust others is a generalised expectation that the other will act according to how he represents himself. The generalisation of expectations is viewed as a learning process by own experiences. If a

¹ On the other hand, there is an opinion that both trust and mistrust are mechanisms of psychological defence coming from individual life experience: mistrust is protection of the human from "the other" and trust is protection of a human from him or herself [18, p. 14].



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person is able to take and endorse trust from others, then he is also able to trust in others [13, p. 31]. On the other hand if a person confirms the way how he presents oneself (consciously and unconsciously) he is perceived as trustworthy.

It can be concluded that the basis of personal trust is the presentation of self-identity interacting with the environment. The prerequisite of being trusted by others is taking part in social interactions, offering learning possibilities and being able to embed external expectations in the self-presentation. Especially in difficult circumstances and time of changes the trust in oneself is tested, because continuity in behaviour and self-presentation is perceived as trustworthy. In contrast a person who only adapts himself is not obvious and thus he cannot be trusted [13, pp. 80].

Both factors of personal trust are acting interdependently: if a person trusts in somebody and gets his expectation confirmed, he will trust in the trustee next time. Simultaneously the trustee perceives the truster as more trustworthy and is more ready to trust in him or her.

Personal trust can be further differed by the type of trust. Many dimensions have been worked out, for example Lewicki and Bunker [20] distinguish between calculus-based trust, knowledge-based trust and identification based trust. Das and Teng [21] between fragile trust versus resilient trust, cognition-based versus affective-based trust, goodwill trust and competence trust. However, in organisational context it is often categorized in two main dimensions: work-related and relationship-oriented dimension [22, 23]. The work-related dimension is mainly cognition-based and includes a belief in the competencies, responsibility, dependability, integrity and reliability. Cognitive-based trust allows people to deal with one another even in risky situations and allows one to feel confident that the other colleague knows what he or she is talking about and it is worth learning from. The relationship-related dimension is mainly affective-based and is associated with beliefs in another's goodwill and about reciprocal concern and mutual respect. Affective-based trust allows one to ask a colleague without being afraid of damaging own reputation, because it is grounded not only in trustful expectations about reliability but also in feelings of interpersonal regard, for example, friendship.

The other main form of trust is called **system trust** referring to the theory of social systems with its basic concept of complexity. According to this, a system can reduce the complexity by increasing the complexity in the system with vest of differentiation. An organisation reflects a social system with various subsystems.

On the one hand organisations are characterised by enormous available complexity (technology, information, knowledge); the adaptive capacity of the single actor is limited [13, p. 60]. Thus the risky input of the employees is the uncritical utilisation of information and knowledge worked out by others with the uncertainty of being wrong or not as useable as expected. According to this trust in a system replaces the personal trust by trusting in the operation of the organisational system. One trusts that there are enough controls which are placed on an impersonal level.

Especially in large and modern forms of organisations employees have to trust more and more in people and information worked by others without being personally acquainted with them. In organisations with great extent on differentiation, it is even imaginable that intra-organisational relationships on lower level can be even programmed in a certain way so that personal trust among the employees is almost compensated because the uncertainty in behaviour



is eliminated by other internal mechanisms [13, pp. 120]. But even so, such differentiated system presumes that people have trust.

In general, both personal trust as well as trust in a system can complement each other by replacing the information gap through internal guaranteed certainty and generalised behavioural expectations, whereat mistrust equates to the functional equivalent. However, some situations and systems require a kind of mistrust to stay awake and generative and not to fall into a routine of (blind) trust. Finally, trust requires commitment, action and boundary setting; it does not just happen [24, pp. 1-5].

Trust-Building Process

Despite of the difficulty to completely characterise what trust is, the general mode of trust-building process can, as in Figure 1, be described by three phases: making decision to trust (or mistrust), social interaction and confirming expectation.

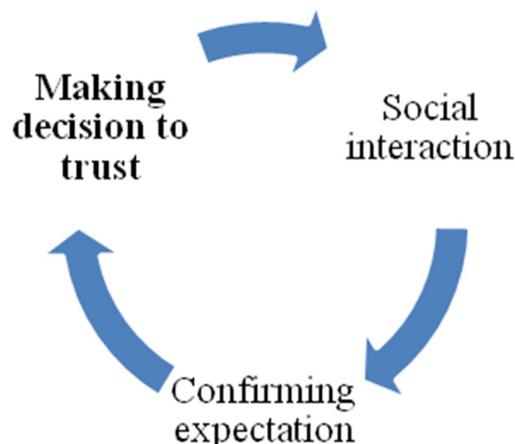


Figure 1. General mode of trust-building-process

The trust-building process is initiated by the truster who freely decides to trust (or to mistrust) in the counterpart in an uncertain and risky situation. If an actor decides to trust then he expects that the other wants and is able to fulfil his expectation, but at least that he will not harm him or her. For a successful trust-building process the trustee accepts the given trust, fulfils the expectation, meets conditions and constraints as well as uses trust a basis for his own influence on the truster in order to obtain a beneficial symbiosis for both dyadic partners in the future. Taking part in “social interaction” reflected by informal and formal networks, gives individuals an opportunity to represent themselves as trustworthy (or not) and offers learning possibilities. That means social interaction is a situational prerequisite of the trust-building process.

The trust-building process forces mutual action of both counterparts whereat the truster initiates the process. If a person trusts in somebody and gets his expectation confirmed, he will trust in the trustee next time. Simultaneously the trustee perceives the truster as more trustworthy and is more ready to trust in him.



Every actor can take the role of the truster and trustee for the other and both absorb the risk by the trustful expectation being aware of their mutual trust-relationship. In regard to organisations, truster and trustee must not reflect only a supervisor-subordinate-relationship; the truster as well as the trustee can belong to any hierarchy, because trust is a mutual process.

A trust building process forces mutual action of both counterparts. The decision-making process of the truster is the initial step of the trust-building process and therefore crucial. In more detail this process is conceptualised and represented in figure 2.

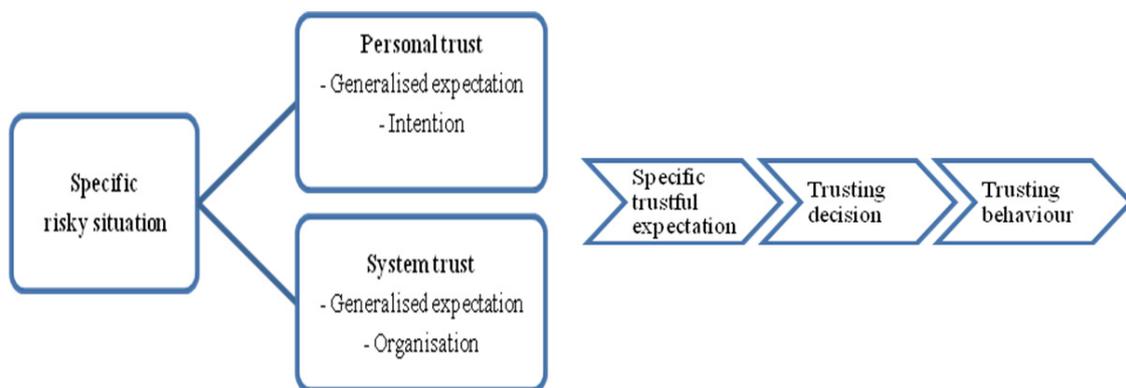


Figure 2. The process of making decision to trust

The need for trust grows in uncertain and risky situations. Furthermore the decision to trust in somebody is a process of rational thinking and internal feeling. A specific trustful expectation is based on both personal and system trust dimensions. A consistent tendency to trust is reflected in the generalised expectation arising from own experience. Further a trusting intention indicates the extent to which a truster is willing to depend on the other in a specific situation. Organisational factors, as for example trust atmosphere, play an additional role. From this the truster forms his own trustful expectation for a specific situation. If the truster decides in favour of trusting then he or she expects that the other is willing and able to fulfil his or her expectation, even though negative results are possible. The trusting behaviour is the transmission of the decision into action. In the long run the actions should correspond to self-presentation in order to be trustworthy for the others.

Finally, trust-building (equivalent mistrust-building) is an iterative reciprocal interaction process. The functional equivalent of trust as strategy to reduce complexity is mistrust. The dilemma of mistrusting is that this person needs more information, but there is not as much trustworthy information as he would need to. So that mistrust leads to stronger dependency on less information [13, p. 93]. There is also a conclusion revealed by the game theory that the long term result of interaction depends on the preliminary condition of the game. If the level of mutual trust is high in the beginning, then the social dynamics will have good chance to reach the balance with high level of trust and low transaction costs. If the level of preliminary trust is low, the interaction will strengthen it and getting out of the deep hole of mistrust is only possible with a big revolutionary shock [18, pp. 92-93].



Trust as a Basis Mechanism for Knowledge Sharing

In general, there are two mechanisms to stabilise certainty or rather reduce complexity: the mechanism of risk limitation and the mechanism of trust. Both mechanisms are functional equivalents; moreover they can complement each other very well [13, pp. 19-20].

The mechanism of risk limitation aims to reduce the probability of a disadvantageous happening and / or to reduce negative effects for an actor [15, p. 58]. The basic instrument of this mechanism is the explicit contract which appears in form of regulations, precaution, monitoring.

The mechanism of trust enables the social exchange, e.g. of knowledge, because of the lack of alternative mechanisms. The mechanism of trust embraces the circumstance that not all kind of actions can be regulated and controlled in advance and therefore uncertainty still remains. When an actor decides to trust somebody, then he acts as if the future is assured – he anticipates the future and therefore time. The risk is absorbed by a trustful expectation that the assumed dependency will not be exploited. In doing so the truster makes oneself vulnerable, because he abstains from establishing explicit measures of protection, regulations in order to secure something that should not happen [13, pp. 29-31].

Similar to trust knowledge is a resource which is not reduced while being used but increases. Furthermore they are both closely connected to individuals. Trust refers to an individual's willingness to react in a risky situation with trustful expectation with being aware of the other's possible opportunistic behaviour. Knowledge is held in the individuals' mind, and sharing of it within the organisation is said to be risky referring to the often cited aphorism "Knowledge is power" by Francis Bacon in the 16th century.

In the knowledge management literature importance for developing trust is often mentioned and examined. For example Mayer, Davis and Schoorman [6, pp. 710-711] and Putnam [12, p. 171] highlight that trust enables working together and interaction among people. From the economical point of view, if trust enables interaction across the organisation then transaction cost can be reduced [Williamson 1985, in: 25, p. 103]. Furthermore Zaheer, McEvily and Perrone [26, pp. 92-93] underline that trust smoothes decision-making process because of easier information collection. Moreover, the literature about trust within organisational context reveals that trusting relationships are crucial in enabling knowledge sharing. For example Levin et al. [27, p. 22] investigated the influence of the interaction ties strength on the receipt of useful knowledge considering trust (benevolence-based and competence-based) as mediator in multiple dimensions (relational, structural and knowledge). In their findings the role of trust as a mediator in effective knowledge sharing became evident for both strong and weak ties. Furthermore while benevolence-based trust is helpful in the exchange of both explicit and tacit knowledge, competence-based trust is critical when the knowledge is more tacit. Studies on trust of Nahapiet and Ghoshal [28] reveal that people tend to interact and to cooperate with each other if there exists a higher level of trust and trustworthiness within intra-organisational relationships which in turn increases knowledge sharing. Further trust is one of the underlying concepts in social exchange and thus may influence knowledge sharing behaviour of people within the organisation. Social exchange refers to voluntary actions, hence, knowledge sharing reflects a basically voluntary behaviour with unclear rewards (i.e. intrinsic, extrinsic, unilateral) [3]. Those studies below show that



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trust is likely to be considered as a necessary condition for knowledge sharing, because without trust people will not be willing to share.

The knowledge seeker must believe that the knowledge source is willing and able to share his or her knowledge. To be able to find the relevant source of knowledge, on the contrary the knowledge carrier must want to articulate what he or she knows and further must believe that his or her knowledge is relevant. Within organisational context the willingness to decide to trust in somebody depends on and is also influenced by institutional general conditions in the organisation. Then the question arises if trust is the right strategy to follow?

Existing studies on trust support this suggestion. For example, Mayer, Davis and Schoorman [6] propose that trust stands as predisposition to the willingness to be vulnerable, to cooperate and to commit oneself for group and organisational visions. Scholars as Gambetta [29] and Watson [30] advise trust as a pre-condition of cooperation and define trust as the employee's confidence that the organisation will perform actions which are beneficial to him or her so that employees feel attached toward and / or being proud of working in their organisation. In this spirit organisational trust is determined to be a key factor of employees' commitment to organisations. A higher level of trust in management and in the organisation makes employees less likely to leave a position or company [31].

In regard to this knowledge sharing is more about creating an environment in which people are "knowledgeable" [22, 27] as well as voluntarily willing to share their knowledge with others. Here, the notion of trust enters the stage. Incorporating trust as a basis mechanism for the development of a knowledge sharing environment can be a way to deal with the described dilemma. This leads further to the conclusion that the knowledge sharing behaviour of employees is mainly influenced by the management or rather "critical mass" [15, p. 232]. According to Ripperger [15] critical mass consists of people who are selected in order to perform the organisational strategy which is declared in the organisational vision and principles. We argue that finding the right proportion of the mechanism of trust and mechanism of external measures is supposed which depends on the specific situation.

In Conclusion

The concept of trust has been determined as a problem of risky input: on the one hand trusting excludes certain opportunities, while on the other hand trusting neutralises certain dangers which cannot be eliminated but which should not irritate the action [13, pp. 27]. For example a person preliminarily trusts another that he or she will handle a difficult situation well, and based on this trusting belief the chance of being successful increases. Those experiences of venturing out lead to a process of learning. The learner generalises own experience and because he or she is ready to honour given trust in oneself, he or she becomes able to trust others.

In the context of knowledge sharing, risk refers to the potential for giving benefit to another without receiving something similar valued or expected in return. However, the truster can not possess all and true information to estimate the probability of the outcome certainly. Therefore the notion of uncertainty and risk is always present. Personal trust as well as the depersonalised trust in a system are mechanisms to reduce uncertainty by replacing the information gap through internal guaranteed certainty and generalised behavioural expectations, whereat mistrust equates to the functional equivalent. Trust requires commitment, action and



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boundary setting; it does not just happen. Meanwhile trust in a system offers more possibilities in finding solutions for problems, missing or losing trust minimises them. However, trust can turn into mistrust – a latent risk of which actors have to be aware of. All in all trust cannot be forced; it can only be presented (through input) and subsequently accepted [13, pp. 53]. According to K. Deutsch trust in this context means a performed intention.

The discussion about the role of trust in the knowledge sharing process should start with studying the environmental framework which is visible through behaviour of an individual. Despite of technical innovations helping to reduce technical risks and complexity, it can be expected that trust will be increasingly important to handle the technical produced complexity in a globalised dynamic environment. The social mechanism of trust will not be replaced, and consequently trust plays an important role in the management of knowledge in organisations. To be able to make a trust-based organisation operational the management may have to rearrange the process of management, because the concept of trust does not fit well with the “managerial tradition that believes efficiency and control are closely linked” [32, p. 41]. Yet many organisations tend to operate with the underlying assumption that “people cannot be trusted or relied on” [32, p. 44] which is expressed by systems of monitoring and control in order to prevent anyone from doing any mistakes. We argue that trust and a sense of belonging fosters an individual to commit oneself to more than only self-interest, but an interest in the growth of an organisation, and therefore in knowledge sharing.

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COMPANY VALUE AND EMPLOYEE SATISFACTION: EXEMPLARY CASE STUDY FINDINGS

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Keywords: employee satisfaction, equity value, company value, Great Place to Work

Abstract

Numerous studies and authors support the idea that there is a link between employee satisfaction and customer satisfaction, leadership, productivity, and financial results. The main hypothesis of the underlying research paper is that the increase of company value can be influenced by employee satisfaction. Thus, the current research aims to investigate these interactions by comparing the results of about 11 companies in the contest “Great Place to Work” and the growth of their company value between the years 2006 and 2009.

I. “Great Place to work” – The Great Place to Work[®] Institute

The Great Place to Work[®] Institute, Inc. is a research and management consultancy based in the U.S. with International Affiliate offices throughout the world. At the Great Place to Work[®] Institute, they have been listening to employees and evaluating employers since 1980, to understand what makes a workplace great. They know that the foundation of every great workplace is trust between employees and management. Their ongoing research, measurement tools, and educational services have made them leaders in helping build high-trust workplaces.

In the USA a study which also uses the results of the Great Place to Work Institute and financial data is already done.

Ingrid Smithey Fulmer from the Edi Broad Graduate School of Management Michigan State University, Barry Gerhart from the School of Business University of Wisconsin-Madison and Kimberly S. Scott from the Wm. Wrigley Jr. Company did a very interesting study named “Are the 100 best better? An empirical investigation of the relationship between being a “Great Place to Work” and firm performance”.

In their study they found evidence that there is a strong correlation between these factors. [2]

This study tries to test the hypotheses: “There is a correlation between employee satisfaction and company value” in an exemplary study of 11 randomly selected companies from Germany.



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The companies were selected from the “Great Place to Work Institute” by chance. The following chart shows the number of participating companies and how many of them were awarded in the years 2006 to 2009:

Year	Participants	Awarded
2006	165	50
2007	198	50
2008	252	100
2009	257	100

The “Great Place to Work Institute” tried to find companies which were awarded in the years 2006 to 2009 and which also had published financial data in the “Elektronischen Bundesanzeiger”. The result was that only eleven companies met both criteria. For this selection, the company size or other characteristics were not considered.

II. Computing Company and Equity Value

There are several possibilities for computing company value. [3] For most of these several models a lot of financial data out of balance sheets and Profit and Loss accounts are necessary. Most of these data are not available in the “Elektronischen Bundesanzeiger”. Therefore, this study will use the **EBIT-Multiple Model**. [1]

The EBIT-Multiple Model is a simple model used very often in M&A Transactions for computing a rough but also reliable company value.

The basic principle itself is simple – based on sustainable EBIT (earnings before interests and taxes) a Company value is computed by multiplying EBIT with an Industry typical multiplier.

Sample calculation:

	Amount per thousand €
Earnings before taxes	3.000
- interest income	-0.050
+ interest expense	0.550
= EBIT	3.500
x industry typical multiplier	0.006
= company value	21.000
- bank debts	-2.500
- additional interest bearing debts (e.g. mezzanine)	-5.000
+ cash resources (fixed deposits, cash, etc.)	0.500
(subtotal net financial indebtedness)	(7.000)
= purchase price / equity value	14.000

Figure 1. Sample calculation



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Additionally at a price indication the so-called net financial debts are reducing the purchase price and the stock of cash or cash equivalents will be higher than the purchase price. This is to take account of the individual financial structure of the company at the transaction date, i.e. for example, that the higher liquidity from retained earnings enhance the purchase price.

The multipliers themselves are usually derived empirically from transactions made by major investment banks and consulting firms or the business press as well. Listed companies also offer through their disclosure requirements the possibilities to derive on the basis of published budgets and the stock market values the corresponding multiplier.

The multipliers vary widely from industry to industry and thus reflect the general expectations of the future for that industry again. Therefore they reflect to medium-term fluctuations. How far a particular company's EBIT multiplier applies at the top or bottom of the range depends on multiple and sometimes subjective factors.

Representatives mentioned:

- **Market:** competitive position, market coverage, strategic positioning, general firm size, etc.
- **Product and range of power:** product range and depth, R & D, Technology, New Products, USP, flexibility, dependence on suppliers, etc.
- **Customer structure:** regional distribution, industry mix, ABC-profile, economic performance of key accounts, etc.
- **Management / Organization:** sustainability of the management or the workforce, personnel, loyalty / employee turnover, flexibility, particularly in post-merger issues, etc.
- **(Economic) Risk Profile:** investment requirements, risk of default / processes, capital requirements, tax position, ownership structure, anticipated changes in legislation, environmental risks, customer structure (regional, industries), management and shareholder structure.

It is easy to see that it is the positioning of the entity within the spectrum of industry-EBIT multiples which allows room for interpretation and therefore also makes very good use as a negotiating tool as well. The business valuation via EBIT multiples generally offers the advantage that, contrary to other policies, the "reality factor" prevails. Not infrequently, the EBIT multiplier is an essential subject of the purchase price formula in the transaction agreements (HJK Management Consultancy www.hjk-mc.de).

Below the growth of the different equity values will be computed:

All the figures and numbers of the companies are out of the "Elektronischen Bundesanzeiger". I received the data directly from the "Great Place to Work Institute" in an unattributed form. Because of confidentiality GPTW eliminated the names of the companies. Also an issue may be that only 7 of the investigated companies showed their complete financial data in the "Elektronischen Bundesanzeiger". Only large incorporated companies with more than 50 Mio € turnover are obliged to show their complete financial data, smaller companies have lower or no standards for disclosure. The companies which show not all necessary data should be regarded separately.



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Company 1

For this company all data from the year 2005 till 2008 are available. Company 1 rose its equity value from 2005 to 2008 from 6.460 T€ to 15.507 T€ which means a growth rate of nearly 140%. Only in the year 2007 they had a small downturn which was completely compensated in the year 2008. This company is a very strong company with no bank debts and nearly 3 Mio € cash. In the figure below you can see the curve of the equity value.

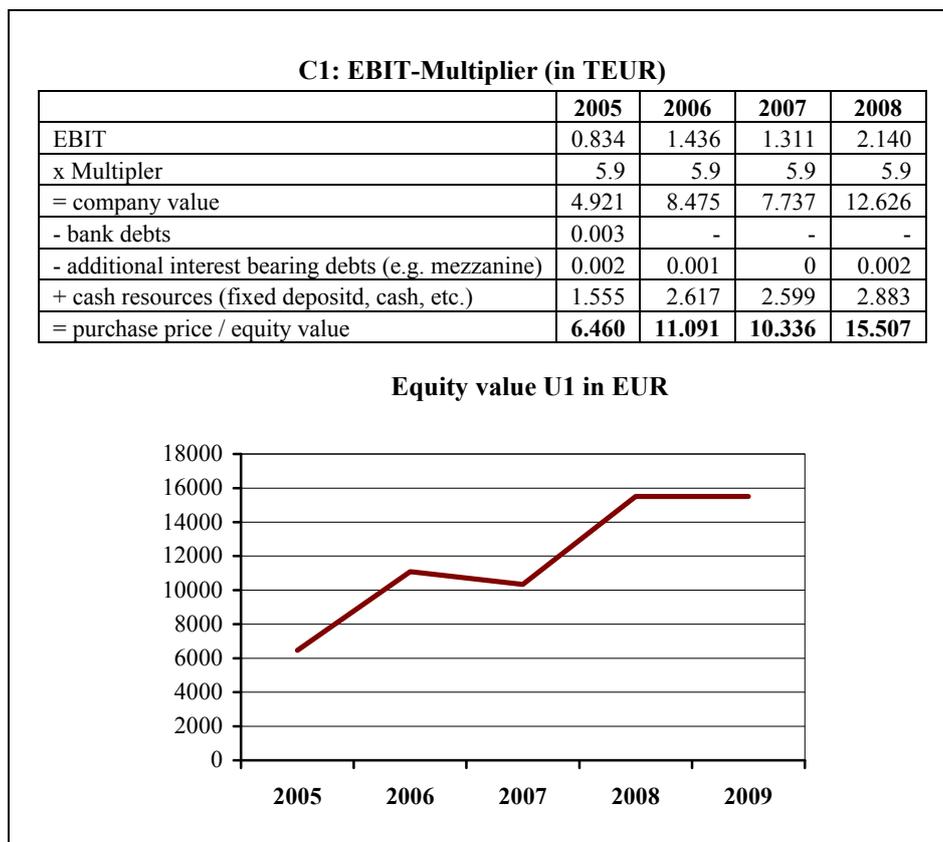


Figure 2. Computing equity value C1

Company 2

For company 2 there are no Profit and Loss account data in the “Elektronischen Bundesanzeiger” available. This may be caused by lower standards for publication for this company.

Company 3

Also for this company very spare data is available; they publicized only the P&L data for the year 2007. These data look quite well. With an EBIT of 615 T€ nearly no bank debts and 1.651 T€ cash the company is quite stable. In the year 2007 the equity value can be computed to 5.680 T€.



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C3: EBIT-Multiplier (in TEUR)

	2005	2006	2007	2008
EBIT	k.A.	-0.939	0.615	-1.031
x Multiplier			6.6	
= company value			4.058	
- bank debts			-	
- additional interest bearing debts (e.g. mezzanine)			0.030	
+ cash resources (fixed deposit, cash, etc.)			1.651	
= purchase price / equity value			5.680	

Figure 3. Computing equity value C3

Company 4

Company 4 has publicized the data for the years 2006 till 2008. The data show an EBIT roundabout of 1.000,00 T€, the cash position decreased from 1.350 T€ to 615 T€ in 2008, though the equity value decreased from 7.395 T€ to 7.080 T€. This company has no bank debts, a solid cash position and a quite high EBIT.

C4: EBIT-Multiplier (in TEUR)

	2005	2006	2007	2008
EBIT	k.A.	1.024	1.119	1.091
x Multiplier		5.9	5.9	5.9
= company value		6.042	6.604	6.438
- bank debts		-	-	-
- additional interest bearing debts (e.g. mezzanine)		3	0	0
+ cash resources (fixed deposit, cash, etc.)		1.350	0.446	0.642
= purchase price / equity value		7.395	7.051	7.080

Equity value U4 in EUR

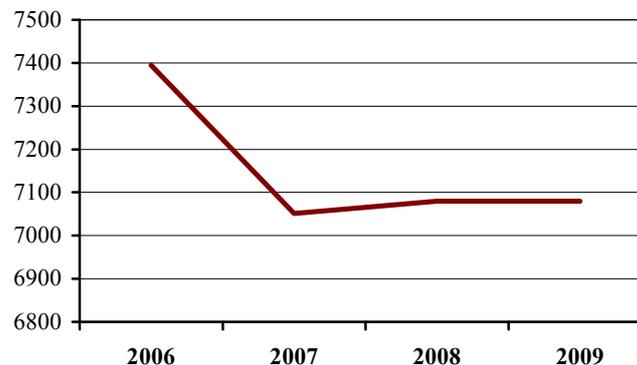


Figure 4. Computing equity value C4



Company 5

This company grew very well during the regarded period. The EBIT increased from 624 T€ to 1.091 T€ and therefore the company value emerged from 4.390 T€ to 6.438 T€. Only in the year 2007 a strong EBIT decline from 943 T€ to 362 T€ had to be managed. This also may be the cause for the lowering of the cash-position from 906 T€ to 3 T€ in 2008. In the figure below you can see the zigzag course of the equity value.

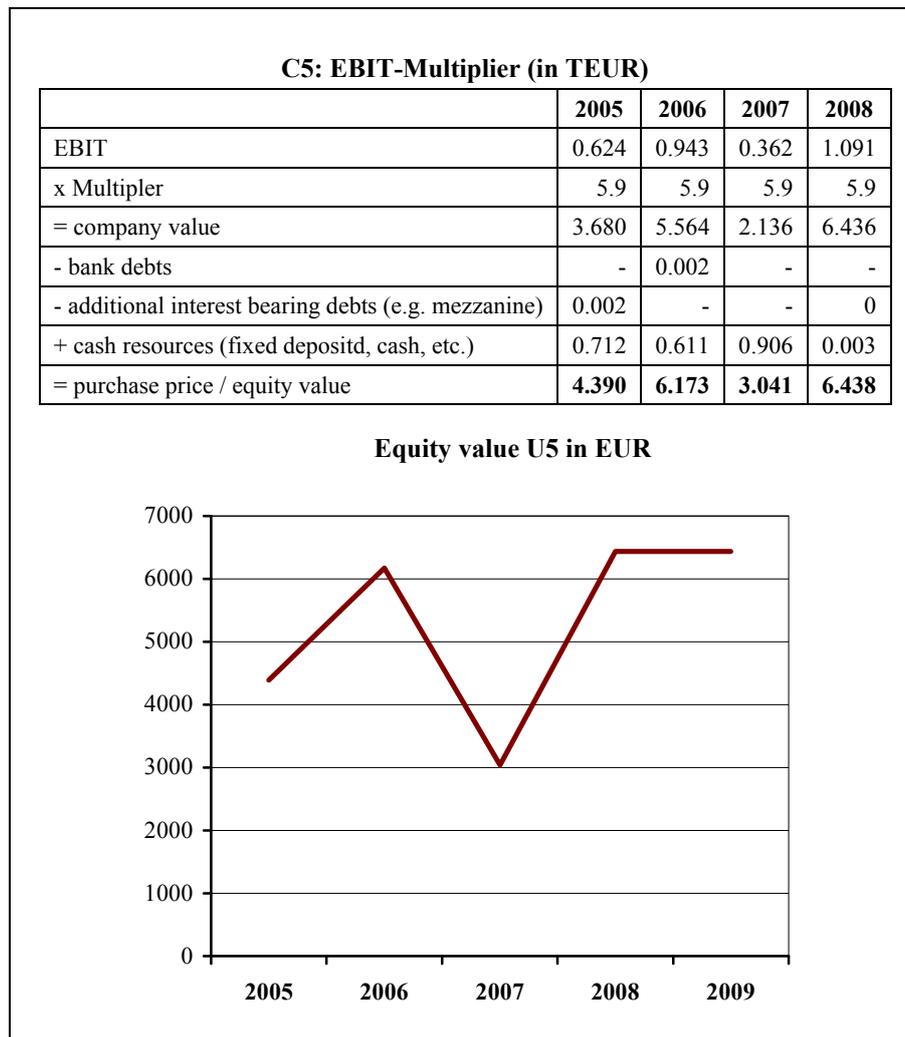


Figure 5. Computing equity value C5



Company 6

For this company the complete data are available, too. The highest EBIT and therefore also company value was in 2005. The EBIT went down from 2005 from 2.594 T€ till 2007 to 1.324 T€ and then rose again in 2008 up to 2.178 T€. In the figure below it is shown this company had a quite stable equity value over the regarded period. Only in 2007 was a weak decrease down to 15.494 T€ in equity value. But in 2008 equity value grew up again to 17.036 T€. Over the regarded time this company also is quite strong with a high cash position and very low debt.

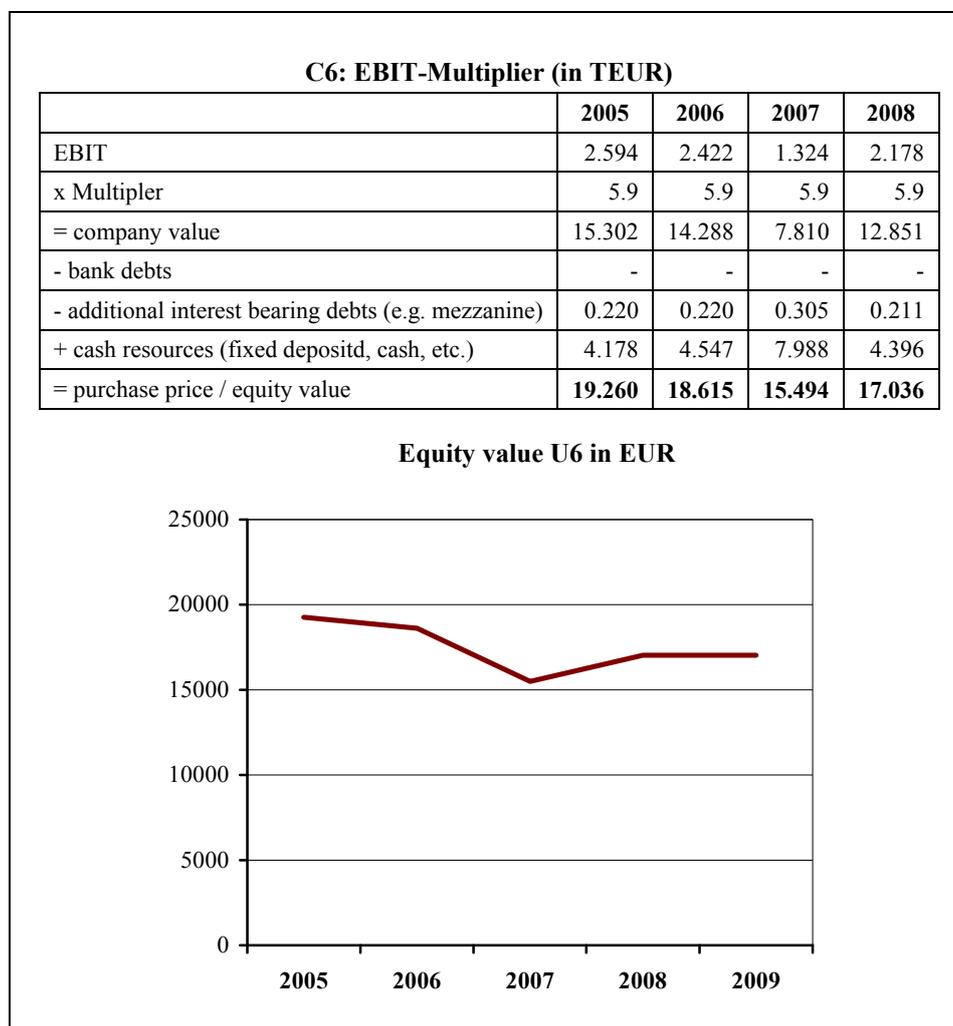


Figure 6. Computing equity value C6



Company 7

Company 7 is the company I worked for during this period as a CEO. In this time EBIT rose from 14.470 T€ in 2005 up to 15.611 T€ in 2008. During this period the company was characterized by a continuous growth each year. Parallel to this raise the company paid back a shareholder credit of about 14.000 T€. This strong self-financed company with a solid cash position enhanced its equity value from 84.870 T€ to 103.824 T€ from 2005 till 2008.

C7: EBIT-Multiplier (in TEUR)

	2003	2004	2005	2006	2007	2008
EBIT	11.437	14.823	14.470	14.801	15.439	15.611
x Multiplier	6.6	6.6	6.6	6.6	6.6	6.6
= company value	75.484	97.832	95.502	97.687	101.897	103.033
- bank debts	0.302	0.259	18.000	13.077	9.935	4.427
- additional interest bearing debts (e.g. mezzanine)	0.006	0.006	0.369	0.397	0.415	0.251
+ cash resources (fixed deposit, cash, etc.)	9.691	3.460	7.737	5.660	6.357	5.469
= purchase price / equity value	84.867	101.027	84.870	89.873	97.904	103.824

Equity value – DCF-method in TEUR

	2003	2004	2005	2006	2007	2008
Equity value	85.867	66.649	98.070	87.058	85.780	91.352

Equity value – by comparison EBIT-Multiplier and DCF (in TEUR)

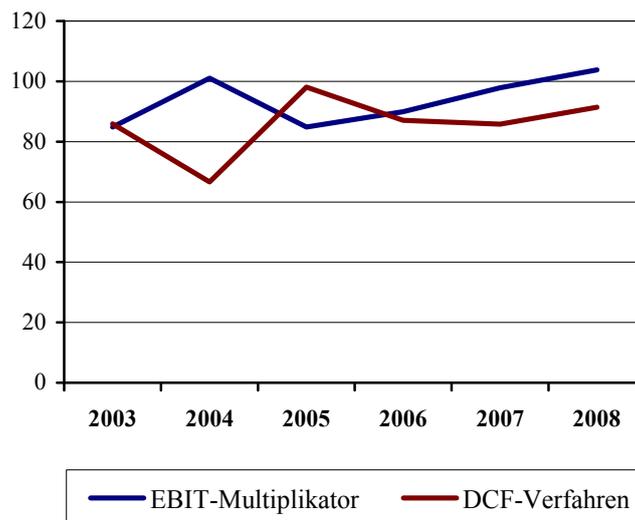


Figure 7. Computing equity value C7



Company 8

This company showed a very interesting progress during the regarded period. In 2005 it started with an EBIT of 7.719 T€ and nearly doubled this up to 14.242 T€ till 2008. In 2007 the company suffered from a strong decrease from 7.926 T€ in 2006 down to 5.128 T€. The company has quite high bank debts and a short cash-position. Nevertheless the equity value exploded from 24.315 T€ up to 71.204 T€ in this period.

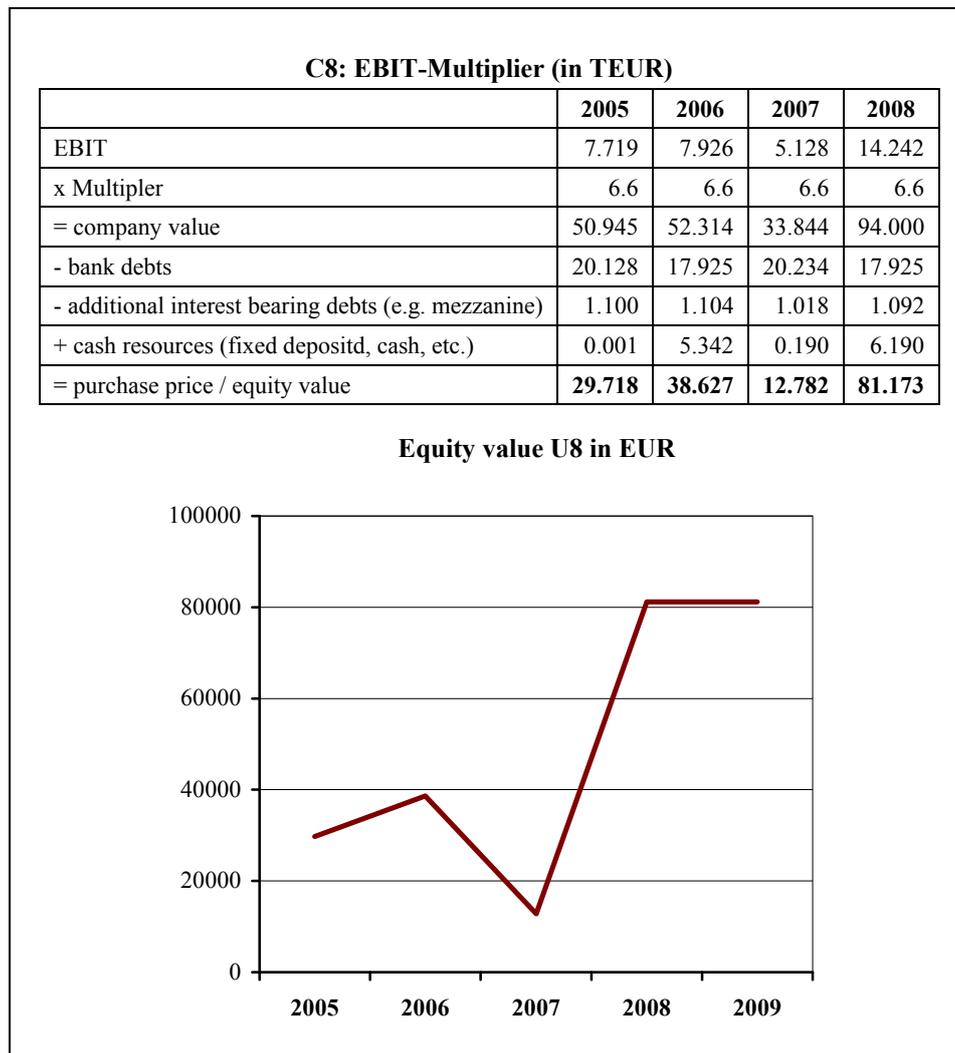


Figure 8. Computing equity value C8



Company 9

Company 9 showed a constant continuous approach. EBIT grew from 2.680 T€ to 3.944 T€ and the equity value from 18.728 T€ in 2005 up to 25.262 T€ in 2008. Company 9 has a strong cash-position and nearly no debts.

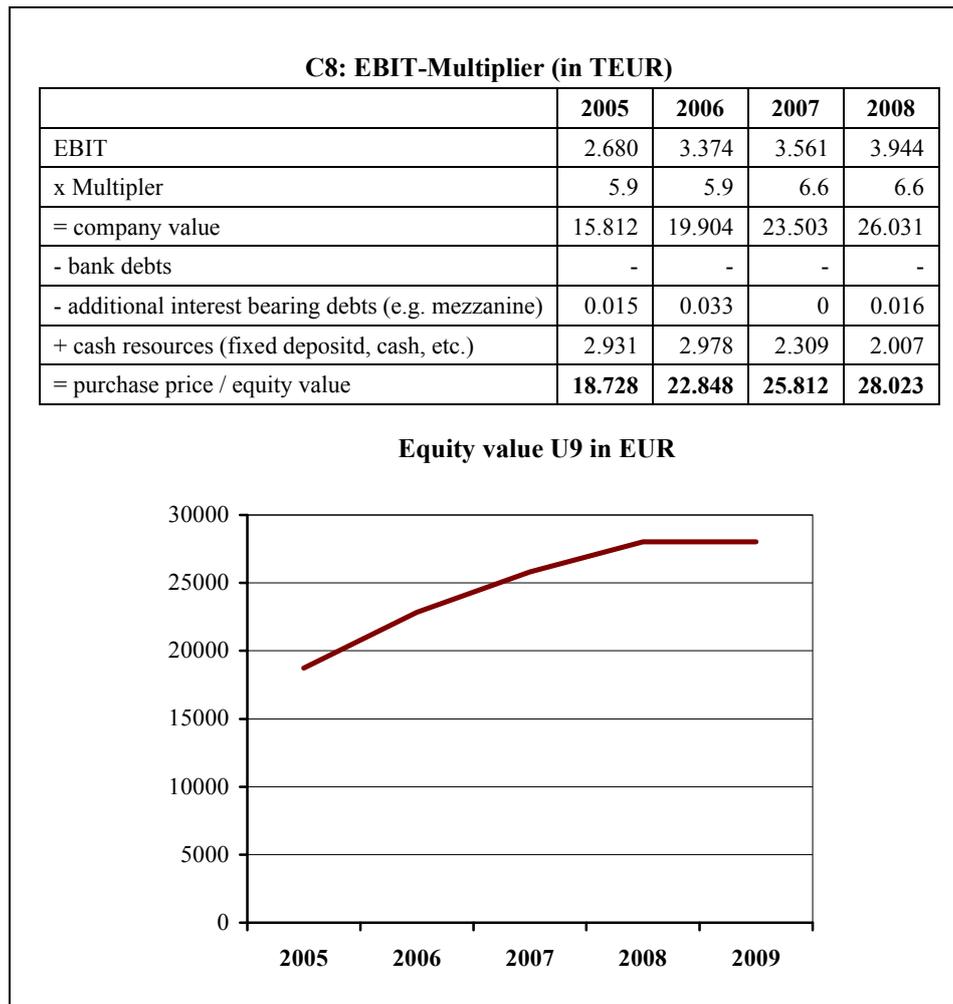


Figure 9. Computing equity value C9

Company 10

This company had its best year in 2005 with an EBIT of 3.390 T€ and a company value of 34.171 T€. Then EBIT slightly declined till 2007 down to 1.798 T€. In the last year of the regarded period EBIT grew up again to 2.415 T€ and the equity value rose up to 29.103 T€. Company 10 is a very solid company with a strong cash-position.

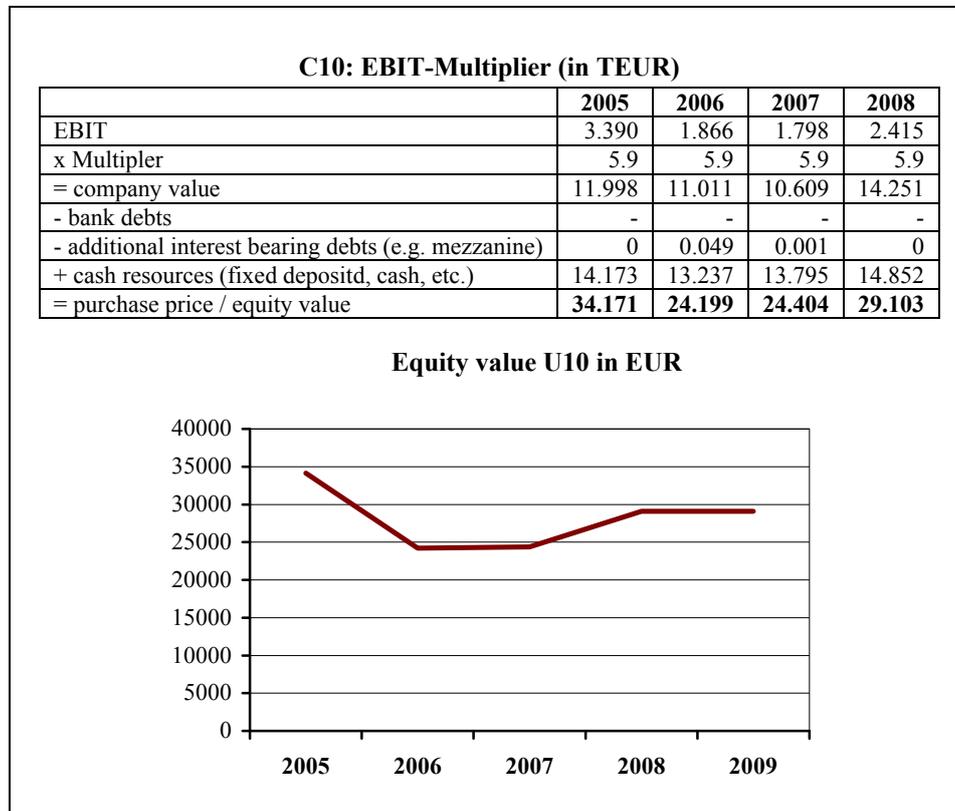


Figure 10. Computing equity value C10

Company 11

For company 11 is no P&L data in the “Elektronischen Bundesanzeiger” available.

Summary:

- All of the randomly selected companies show quite strong financial results.
- Eight companies raise their equity value during the regarded period.
- Only one company shows significant bank debts.

III. Comparing the Results of “Great Place to Work” – The Great Place to Work® Institute [4]

Based on an employee survey and a culture audit, attending companies were ranked from 1 to 100. In this research I will compare the results from 11 randomly selected companies which attended the contest 2007 and 2009 or only in 2009.



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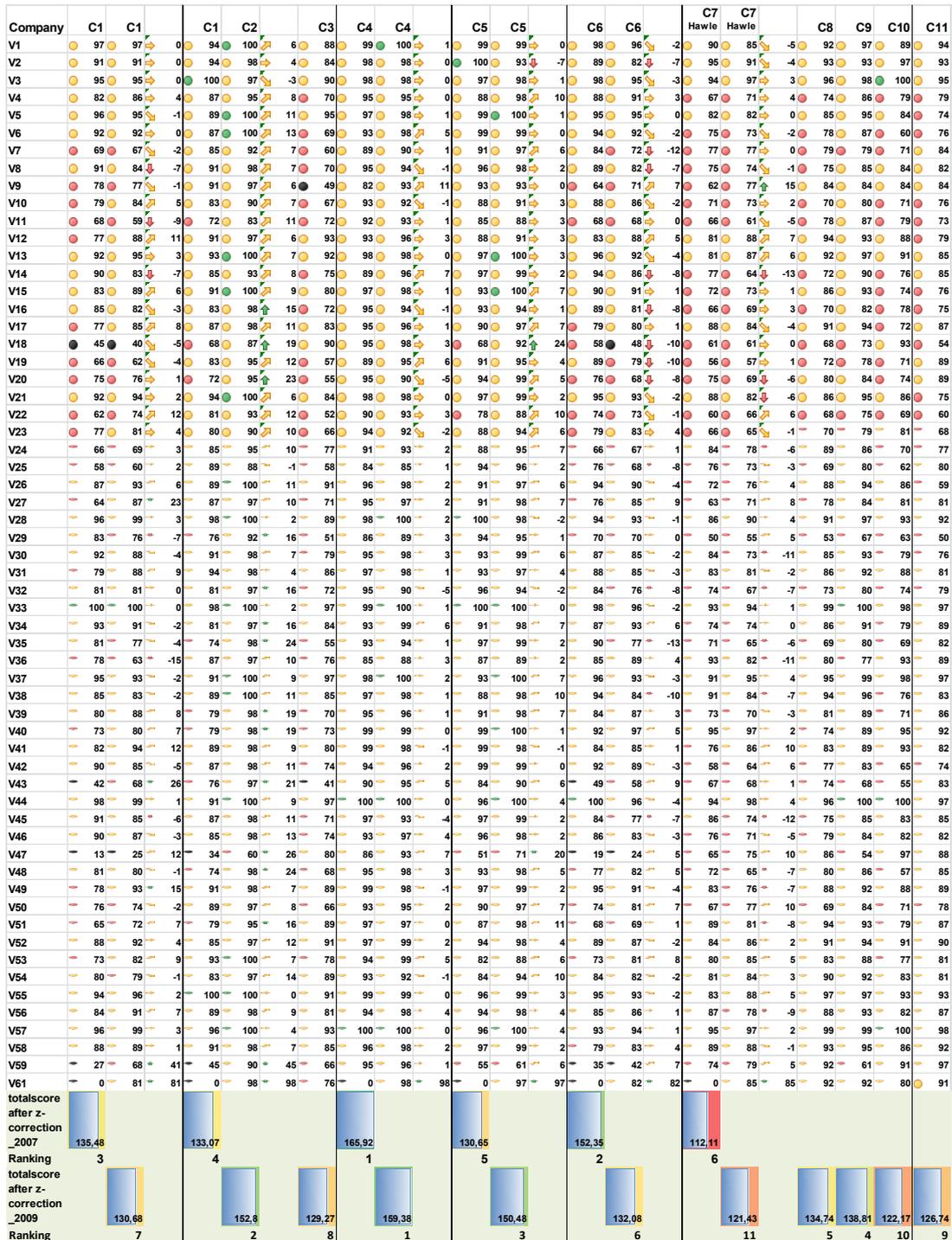


Figure 11. Great place to work results 2007 / 2009



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Company 1

Company 1 took part both years 2007 and 2009. Based on the total score this company had a small decline from 135.48 to 130.68 points. The most relevant decreases were in these following Questions. Question 29: “Promotions go to those who best deserve them” (minus seven points). Question 36: “Our facilities contribute to a good working environment” (minus fourteen points). Question 45: “Management is competent at running the business” (minus 6 points). Out of these 11 companies company 1 reached the 7th place in 2009.

Company 2

Company 2 also took part both times in the contest and raised its total score from 133.07 up to 152.80 from 2007 till 2009. The most relevant raise was in these following Questions. Question 16: “Management genuinely seeks and responds to suggestions and ideas” (plus 15 points). Question 18: “I feel I receive a fair share of the profits made by this organization” (plus 19 points). Question 20: “Management has a clear view of where the organization is going and how to get there” (plus 23 points). Question 29: “Promotions go to those who best deserve them” (plus 15 points). Question 32: “Management delivers on its promises” (plus 16 points). Question 34: “People care about each other there” (plus 16 points). Question 35: “Management’s actions match its words” (plus 24 points). Question 39: “There is a “family” or “team” feeling there” (plus 20 points). Question 40: “People celebrate special events around here” (plus 20 points). Question 47: “We have special and unique benefits here” (plus 26 points). Question 48: “We are all in this together” (plus 24 points). Question 51: “I want to work here for a long time” (plus 16 points). Question 59: “People are supported by helpful measures in promoting health” (plus 45 points). Out of these 11 companies company 1 reached the 2nd place in 2009.

Company 3

Company 3 only took part in 2009 and reached the 8th place with 129.27 points.

Company 4

Company 4 took part both years 2007 and 2009. Based on the total score this company had a small decline from 165.92 to 159.38 points. The most relevant decrease was in Questions 20: “Management has a clear view of where the organization is going and how to get there” (minus 6 points). In both years 2007 and 2009 this company was on the first place out of the selected one.

Company 5

Company 5 also took part both times in the contest and raised its total score from 130.65 up to 150.48 from 2007 till 2009. The most relevant raise was in these following Questions. Question 18: “I feel I receive a fair share of the profits made by this organization” (plus 24 points). Question 47: “We have special and unique benefits here” (plus 20 points). Out of these 11 companies company 5 reached the 3rd place in 2009.



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Company 6

Company 4 took part both years 2007 and 2009. Based on the total score this company had a decline from 152.35 to 132.08 points. The most relevant decreases were in these following Questions. Question 2: “I am given the resources and equipment to do my job” (minus 6 points). Question 7: “Management makes its expectations clear” (minus 12 points). Question 8: “I can ask management any reasonable question and get a straight answer” (minus 7 points). Question 14: “Management is approachable, easy to talk with” (minus 8 points). Question 16: “Management genuinely seeks and responds to suggestions and ideas” (minus 8 points). Question 18: “I feel I receive a fair share of the profits made by this organization” (minus 11 points). Question 19: “Management keeps me informed about important issues and changes (minus 10 points). Question 20: “Management has a clear view of where the organization is going and how to get there” (minus 8 points). Question 25: “Management does a good job of assigning and coordinating people” (minus 8 points). Question 32: “Management delivers on its promises” (minus 8 points). Question 35: “Management’s actions match its words” (minus 13 points). Question 38: “I’m proud to tell others I work here” (minus 10 points). Question 45: “Management is competent at running the business” (minus 7 points). Out of these 11 companies company 6 reached the 6th place in 2009.

Company 7

Company 7 also took part both times in the contest and raised its total score from 112.11 up to 152.80 from 2007 till 2009. The most relevant raise was in these following Questions. Question 9: “I am offered training or development to further myself professionally” (plus 15 points). Question 12: “My work has special meaning: this is not “just a job” (plus 7 points). Question 27: “This is a psychologically and emotionally healthy place to work” (plus 8 points). Question 41: “I believe management would lay people off only as a last resort” (plus 11 points). Question 47: “We have special and unique benefits here” (plus 10 points). Question 50: “Management shows a sincere interest in me as a person, not just an employee (plus 9 points). Out of these 11 companies company 7 reached the 11th place in 2009.

Company 8

Company 8 only took part in 2009 and reached the 5th place with 134.74 points.

Company 9

Company 9 only took part in 2009 and reached the 4th place with 138.81 points.

Company 10

Company 10 only took part in 2009 and reached the 10th place with 122.17 points.

Company 11

Company 11 only took part in 2009 and reached the 9th place with 126.74 points.

Summary

All these eleven companies have a very high employee satisfaction. The six companies which took part two times in this contest and reached a place under the 100 best are outstanding.



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Conclusions

All of the randomly selected companies show quite strong financial results. Eight companies raised their equity value during the regarded period. Only one company shows significant bank debts. From the six companies which attended the contest both times, five companies show their financial data in the “Elektronischen Bundesanzeiger”. Three from these five companies were able to raise their equity value during the regarded period despite the fact that during 2007-2009 we had strong financial crisis all over the world.

Most studies which are analyzing the correlation between employee satisfaction and financial results show evidence that there is a correlation.

This exemplary case study also shows clear evidence that there is a correlation between employee satisfaction and equity value.

Managerial Implications and suggestions for further research:

- The employee’s satisfaction is an essential factor for equity value and financial results.
- Managers should analyze what are the drivers for their employee’s satisfaction.
- Managers should provide a working environment which allows raising the employee’s satisfaction.

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Colbe, ZGR 1997, S. 271/274-283; Küting/Lorson, BB 1997, Beilage 8, S. 11/18-25; speziell zum APV-Ansatz Drukarczyk/Richter, DBW 1995, S. 559-580; Luehrmann, Harvard Business Review 1997, S. 145-154. Zur Verbreitung der DCF-Verfahren in Deutschland vgl. die empirischen Untersuchungen von Peemöller/Bömelburg/Denkman, WPg 1994, S. 741-749; Pellens/Rockholtz/Stienemann, DB 1997, S. 1933/1934-1936) can be used. A firm's value is determined by its ability to generate cash flow, both now and in the future. The DCF-Method computes company value by discounting cash flows. Therefore DCF-Methods use a risk adjusted interest rate the discounted cash flows can be seen as future values (vgl. Ballwieser, WPg 1998, S. 82; Baetge/Niemeyer/Kümmer (Fn 349), S. 278).

4. www.greatplacetowork.de, www.greatplacetowork.com.



ROLE OF ECO-INDICATORS IN ENVIRONMENTAL MANAGEMENT ACCOUNTING

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Keywords: eco-indicators, environmental management accounting, costs, responsibility

Abstract

All aspects of business are affected environmental pressures, including accounting. It requires changes in accounting system, especially widely use environmental accounting.

The aim of this research is to evaluate possibility of implementation of eco indicators in environmental management accounting in Latvia.

To reach this objective it is necessary to develop the following tasks:

- to study what is environmental management accounting (EM) in substance and it's significant elements;
- compare and analyse main tips of costs included in guidance of EMA with structure of eco-indicators established in Latvia;
- to describe both contributing and obstructing factors of implementation of EMA;
- to draft proposals for improvements in normative act's of enterprises to stimulate use of environmental management accounting.

This research has used the approach of economic analysis and comparative methods in studying the legislation and practices of international accounting system and environmental management accounting in different countries. In the article the monographs of the authors, publications in periodicals and other sources of literature in area of environmental management accounting and linking to Latvian situation are also analysed.

The main conclusion shows on differences of environmental indicators of Latvia in comparison with classification of costs recommended in EMA and suggestions for enhancement of EMA implementation setting are given.

1. Theoretical background of “Environmental Management Accounting”

The integration of environmental problem into the corporate accounting can be substantiated by several important reasons one of them shows that enterprise accounts should reflect attitude of the companies towards the environment and the impact of environmental expenditures, risks and liabilities upon the financial position of an enterprise (UNCTAD, 2002)



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Despite the significance of environmental information in preparing financial statements, as well as in operational decision making process, prior studies (Epstein, M. J., 1995) have found that majority of enterprises are not aware and do not evaluate their environmental costs.

This suggests that thereby the causes of these costs are unknown. Lack of understanding of the impact of environment on the produced goods and the provided services is the reason for not including environmental costs during the calculation of a product costs; liabilities related to the environmental changes in their turn are not reflected in the financial reports.

The above mentioned problem can be partly prevented by means of environmental management accounting. Although this concept is not new, and active research in this field dates back to late 20th century, however, the Latvian economic environment in the current period misses information on the substance of environmental accounting and its application possibilities. Consequently, the research on this issue becomes even more topical nowadays.

The concept 'environmental accounting' on the basis of guidelines, developed by international organizations, as well as on the basis of studies performed by scientists from different countries, is differently defined and interpreted. Professor K. V. Bhanu Murthy (India) – environmental accounting divides into three level activities where Corporate Environmental Accounting (CEA) is about making environment related costs more transparent within corporate accounting systems and reports (K. V. Bhanu Murthy, 2007).

Having studied available publications, we can come to a conclusion that Environmental Management Accounting (EMA) is an element of Corporate Environmental Accounting (K. V. Bhanu Murthy, 2007; EPA, 1995). Essentially EMA involves refining a management accounting system so that it more tightly and rigorously accounts for environment related costs.

Besides the above mentioned environmental accounting contexts, there had been two more types identified in the recommendations of IFAC – Full cost accounting that enables to evaluate the external environmental costs and influence, as well as Natural resource accounting for the determination of stocks and their flow in physical and monetary terms.

In order to continue the studies of the specificity and application aspects of environmental management accounting, it is necessary to specify its definition. One of the first publications in this sphere is a document, prepared by Environment Protection Agency (US) in 1995, where the environmental management accounting is described as “the process of identifying, collecting and analyzing information about environmental costs and performance to help an organization’s decision-making” (EPA, 1995). In its turn, IFAC’s guideline defines EMA broader as the identification, collection, analysis and the use of two types of information for internal decision-making:

1. physical information on the use, flows, and fates of energy, water, and materials (including waste);
2. monetary information on environment-related costs, earnings and savings. (IFAC, 2005).

This position is very important for more complete evaluation of the influence of a company’s performance on environment. The studies have proved that many companies disclose the quantitative indicators of utilized natural resources and caused waste, but in the



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monetary terms these indicators are not being aggregated. When the changes of environmental factors are being evaluated in the terms of money, people pay more attention to them. In order to perform such evaluation, it is necessary to integrate the conventional environmental reports into the system of environmental management accounting. The disclosure of the influence of environmental problems in the company's information is determined by restrictions of different level:

- Different restrictions (for example, emission limit in conformity with Kyoto Protocol);
- Environmental taxes of different countries (carbon taxes; energy use taxes; landfill fees etc.);
- Regular control, provided by the EU requirements (for example, RoHS Directive);
- Conditions of Investing Ratings System (Dow Jones Sustainability Index);
- Standards of Environmental Management System (EMS) that shall be observed by suppliers as provided by the International Standardization Organization;
- Companies' voluntary or according to the owners' requirements prepared environmental reports together with annual financial statements (IFAC, 2005).

Taking into consideration these and other requirements, "EMA serves business managers in making capital investment decisions, costing determinations, process/product design decisions, performance evaluation and a host of other forward-looking business decisions" (UNSD, 2000). It means that EMA focuses on the management of a company's internal functions, however, at the same time it enables to become an instrument in order to provide external information users with reports on environmental costs. However, there are no strict requirements in EMA sphere, as it is in financial accounting, therefore each company can adjust the general recommendations to its special business conditions, and thus a necessity emerges to have a particular methodological base for the foundation.

2. Approaches of EMA Costs Classification

The approaches and methods that the companies may apply in EMA practical aspect had been differently analyzed in several scientific and applied studies (EPA, 1995; Epstein, M. J., 1995; UNDSN, 2001.; ICAWAI, 2008.; IFAC, 2005). One of the most widely interpreted materials has been presented in the document of IFAC international guidelines; therefore it was used as a basis for the evaluation of Latvia's situation.

According to EMA definition, both physical and monetary information on the company's activities influencing environment shall be accounted and processed in the sphere of environmental management. The application of natural units of measurement is especially necessary for the accounting of material costs (use of energy, water, different materials, emission of waste), but they mainly characterize the influence of company's activities on environment. It means that the company shall track down all "inputs" and "outputs" of physical resources in order to ensure that no significant quantity of energy, water or materials is left without accounting. Such type of accounting is called "material balance" or "eco-balance" (IFAC, 2005).

The distinctive feature is that some outcomes or "outputs" in the material balance shall not be considered as a finished product. For example, at transport companies that utilize energy



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and materials, but do not make new physical finished products, all energy, water and other used materials shall be considered as non-product output.

Taking into consideration the diversity of EMA methodology and methods applied in different countries, the classifications of environment-related costs differ; however, there are six categories of costs identified in EMA recommendations:

- **Material costs of product outputs** – they comprise the purchase costs of natural resources, for example, water and other materials that are included into the manufactured product, by-product and packaging;
- **Material costs of non-product outputs** – they comprise the purchase costs of energy, water and other materials and sometimes also the process costs, if they turn into waste and emission;
- **Waste and emission control costs** – processing of waste and emission, enrichment and removal, compensation costs for the harm to the environment and other costs related to the control regulatory requirements;
- **Prevention and other environmental management costs** – this group covers costs that are related to the environment protection management activities, for example, a project on the development of a cleaner product, but it comprises also costs related to environmental planning, measuring and communication, as well as other relevant costs;
- **Research and development costs** – costs that are related to the studies envisaged for dealing with environmental problems and developmental projects;
- **Less tangible costs** – internal and external costs with less tangible nature, for example, liabilities for the fulfillment of future regulation, the company's image, partnership, etc. (IFAC, 2005)

The classification of the above mentioned costs was used in order to evaluate, whether the requirements of the laws and regulations of Latvia form the basis for the accounting of companies' costs at such structure and detailed elaboration degree that provides as complete as possible information on the influence of companies' economic performance on environment and on the measures taken regarding the preservation and renewal of natural resources.

3. Comparative Analysis of Latvia's EPI and EMA Costs

In 2009 the Cabinet of Ministers of the Republic of Latvia adopted the *Regulations on National Environmental Indicators* that had been developed in conformity with the provisions of Environmental Protection Law. They are envisaged for the evaluation of the efficiency of environmental policy implementation and for the determination of the correspondence of environmental situation to the policy aims, but such an approach to the environmental issues may be also applied by entrepreneurs. Having studied 435 different environmental indicators summarized during the studies performed by European Environment Agency and ten groups of indicators chosen for the description of environment-related sustainable development processes in the EU documents, it is possible to find that Latvian environmental indicators cover 7 groups:

1. Waste management – 4 indicators
2. Biodiversity – 17 indicators



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3. Air pollution and depletion of ozone layer – 5 indicators
4. Climate change – 10 indicators
5. Water management – 16 indicators
6. Land use – 4 indicators
7. Use of natural resources – 5 indicators (LR MK, 2009)

Each group of indicators comprises those indicators that precisely describe the parameters existing in the environment that are accounted during measuring and studied. For example, the indicator “waste management” comprises several specifying concepts of environmental indicators – generated quantity of hazardous waste (in thousands of tons per year), quantity of waste generated in households (in kilograms per capita a year), total volume of recycled waste generated in households (proportion of the quantity generated per year) and total volume of recycled hazardous waste (proportion of the quantity generated per year).

In every company the environmental indicators to be individually applied shall be clear, easy to measure, they should clearly reflect the changes in the environmental situation. The environmental specialists recommend accounting in a separate register those indicators that are regularly determined (measured, calculated) at the company. It provides the managers with an opportunity to observe the development of environmental issues at the company for many years. Thus the progress in every sphere that the company measures and controls by means of environmental indicators becomes an important acknowledgement of environmental protection activities carried out by the company. However, the performance of such activities shall be aligned with the common EMA conception providing that physical data shall be turned into monetary ones, consequently – they shall be evaluated in terms of particular costs.

In order to determine, whether it is possible to obtain the most important values of EMA costs, while applying EPI adopted in Latvia, there was a matrix of environmental costs and environmental indicators developed during the empirical research (see Table 1).

Only 33 times it was possible to find certain correspondence between the environmental indicators adopted in Latvia and those 6 costs groups identified in EMA guidelines, besides the number of indicators presented in the table constitutes approximately 50% of all indicators (in total – 61 indicators). For example, in Group 1 “Waste management” indicator 1.1. *Generated quantity of hazardous waste (thousands t/year)* and indicator 1.2. *Quantity of waste generated in households (kg/capita/year)* are related to both use of raw and auxiliary materials for the manufacturing of production – EMA costs group 1, and to the result of such economic activities that do not directly become a realization object and also to the processing costs – EMA costs group 2. In its turn, indicator 1.4. *Total volume of recycled hazardous waste (% of quantity generated)* mainly shall be attributed to EMA costs group 4 – Preventive and other environmental management costs. Similarly other indicators also can be used for the identification of different EMA costs.



Table 1

Environment-Related Costs and Latvian EPI (LR MK, 2009; IFAC, 2005)

Categories of environmental costs	Waste management	Biodiversity	Air pollution	Climate change	Water management	Land use	Use of natural resources
1. Material costs of product outputs							
Raw and auxiliary materials	1.1.-1.2.		3.1.-3.3.	4.1.-4.2.			7.1.-7.2.
Packaging materials	1.1.-1.2.		3.1.-3.3.	4.1.-4.2.			7.1.-7.2.
Water					5.2.1.		7.3.
2. Material costs of non-product outputs							
Raw and auxiliary materials	1.1.-1.2.		3.1.-3.3.	4.1.-4.2.			7.1.-7.2.
Packaging materials	1.1.-1.2.			4.1.-4.2.			7.1.-7.2.
Operating materials				4.1.-4.2.			7.1.-7.2.
Water					5.2.1.		7.1.-7.2.
Energy				4.6.-4.10.			
Processing costs	1.1.-1.2.						
3. Waste and emission control costs							
Equipment depreciation							
Operating materials	1.1.-1.2.						7.1.-7.2.
Water and energy				4.6.-4.10.	5.2.1.		7.3.
Internal personnel							
External services							
Fees, taxes and permits							
Fines							
Insurance							
Remediation and compensation	1.4.						
4. Preventive and other environmental management costs							
Equipment depreciation							
Operating materials, water, energy	1.4.	2.5.-2.10.		4.1.-4.2.		6.1.-6.4.	
Internal personnel							
External services							
Other		2.1.-2.4.					
5. Research and development costs							
6. Less tangible costs							
						6.1.-6.4.	

The performed analysis enabled to determine that conceptually EPI system may be a part of the evaluation of EMA costs however, it has several drawbacks:

- the structure of national environmental indicators in Latvia at their present developmental stage is oriented towards the evaluation of environmental situation at the state level, at the companies' level;



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- several environmental indicators shall be attracted to each EMA costs item;
- one and the same indicator may be used for the identification of different costs;
- it is impossible to identify all types of costs by means of environmental indicators – it is proved by the data presented in Table 2 (11 types of costs and costs group 5 *Research and development costs* have no corresponding environmental indicator).
- there might emerge difficulties regarding the evaluation of the natural units of measurement of environmental indicators in terms of money.

The fact that the environmental indicators are not used to characterize such important costs as costs of equipment depreciation, internal personnel, external services, taxes, fines, insurance and research and development (See highlighted rows in Table 1), which shall be considered as very important in this sphere, indicates the necessity to supplement EPI system significantly for more complete disclosure of EMA costs.

Thus we can draw a conclusion that it is necessary to develop more detailed and to a certain extent different system of indicators at the level of a company for EMA needs; for example, groups of indicators – *Biodiversity* and *Climate change* shall be only indirectly related to the influence of a particular company's economic activities on environment and they shall rather be attributed to EMA costs group *Less tangible costs*.

At the same time there should be changes made regarding the present accounting practice, because the necessity to apply EMA indicates the most significant problems to be dealt with:

- inadequate links between accounting and other departments;
- unintentional hiding of environment-related cost information in overhead accounts;
- inadequate tracking of information on material use, flows and costs;
- lack of some environment-related information in the accounting records;
- investment's decisions made on the basis of incomplete environment-related information (IFAC, 2005).

Having searched for the solutions of above mentioned problems and analyzed Latvia's situation regarding the accounting of environment-related information and evaluation of companies' performance, we admit that the provisions of Natural Resources Tax Law of the Republic of Latvia have certain significance in dealing with the problem (NRTL, Section 4).

A company as a tax-payer is responsible for ensuring the accounting of the volume of natural resources and pollution. However, the provisions of the law are not specified in relation to the type and form how this accounting shall be carried out. Thus, when making changes in the system of environmental indicators, it is very important to elaborate them in details in conformity with six categories of environmental costs necessary at the company's level (See Table 1). The legal basis for such changes would be the amendments made to Regulation No.175 *Regulations on National Environmental Indicators* adopted by the Cabinet of Ministers of the Republic of Latvia. It is necessary to supplement the system of environmental indicators elaborated in details with the amendments of provisions of those laws and regulations regulating accounting and laws on taxes that shall be applied to the natural resources to be extracted.

In the sphere of accounting it is necessary to make amendments to "*Annual Accounts Law*" of the Republic of Latvia by including there as the obligatory provisions for the disclosure of environment-related information in the annex of an annual account, and at the same time specifying the structure of information to be prepared, supplementing Regulation No.585



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“Regulation Regarding the Conduct and Organization of Accounting” adopted by the Cabinet of Ministers of the Republic of Latvia. The implementation of such provisions would make the companies responsible for the development of such classification of costs that would enable not only to disclose for users of accounts the information related to the influence on environment, but also would enable the management to track down the flows of natural resources and other materials used for economic activities and the level of pollution caused to nature as a result of such flows, to find out and control the hidden costs, to make adequate decisions for the implementation of environment protection measures.

Conclusions and Solutions

1. *Environmental management accounting* is one of *environmental accounting* forms, and studies performed in this sphere within about 20 years show its historical development, the increase of social understanding and distribution, which is proved by the guidelines developed by several international organizations (UNCTAD; IFAC). On the basis of these recommendations, in many countries there had been developed national policy on environmental accounting, and the companies are motivated to implement it into practice, however, in Latvia at present there has no complex approach developed regarding the application of environmental accounting.
2. Out of the definitions analyzed within the research, IFAC guidelines provide the most detailed nature of EMA. As the most essential it is necessary to point out the registration of environment-related costs both in natural units for the flows of physical resources and aggregating the monetary data that provide basis for the improvement of decision-making quality at the company and also for the informing of the external users of annual accounts on the influence of the company’s economic activities on environment.
3. The classification of environment-related costs into six groups was used as a methodological basis for the performed analysis; two groups have non-conventional division concerning the utilization of raw materials and materials in relation to the substance of product to be manufactured and waste, and emissions, in their turn the rest three groups are related to the costs of waste management, research projects on nature protection and other less tangible costs.
4. When evaluating the normative basis for the formation of environmental costs at the companies in Latvia in comparison to EMA groups of costs, the environmental performance indicators (EPI) adopted by the Cabinet of Ministers of the Republic of Latvia were used as natural indicators of environment; these indicators are arranged in seven groups. It was found out during the analysis that only about 50% of all (61) indicators can be related to the types of EMA costs, besides several significant groups of costs are not represented all with the environmental indicators (costs of equipment depreciation, internal personnel, external services, taxes, fines) thus proving that EPI system cannot be used as a basis for the introduction of EMA, if it is not significantly supplemented.
5. For dealing with the identified problems, related to EPI system as the basis for the implementation of EMA, it is necessary to make amendments to Regulation No.175 *Regulations on National Environmental Indicators* adopted by the Cabinet of Ministers of



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the Republic of Latvia, elaborating in details the system of indicators at the level of companies in conformity with six EMA categories of costs.

6. It is necessary to supplement the system of environmental indicators elaborated in details with the amendments of provisions of those laws and regulations regulating accounting - it is necessary to make amendments to “*Annual Accounts Law*” of the Republic of Latvia by including there as the obligatory provisions for the disclosure of environment-related information in the annex of an annual account, and at the same time specifying the structure of information to be prepared, supplementing Regulation No. 585 “*Regulation Regarding the Conduct and Organization of Accounting*” adopted by the Cabinet of Ministers of the Republic of Latvia.

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GOVERNANCE ASPECTS IN THE EU RESEARCH POLICY TO SUPPORT INNOVATION

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Abstract

The paper is devoted to the governance issues in the implementation of EU research policy. Part of the research was carried out within the framework of the European Union 7th Framework Programme (FP7) Project “The Ethical GovernAnce of Technologies” (EGAIS <http://www.egais-project.eu/>) at the University of Namur, Belgium. Our attention was focused on the ethical issues in the implementation of the respective EU policy, since ethics has become an indispensable part of today’s EU research policy. The collected and analysed empirical data within the EGAIS project research have provided material for our further research in the field. The author has continued her research at the University of Latvia, and her interest has been targeted at more recent developments and challenges in the EU research policy with the related governance issues. It concerns, among other things, the governance regarding the framing and implementation of innovative approaches in research and development, linked to the notion of responsible research. It is particularly challenging due to the potential risks that need to be addressed in the public administraiton of research and innovation, especially under the conditions of high degree of uncertainty that the world faces today.

In the paper the author traces certain tendencies that become visible in the continuously changing governance approaches in support to innovative research and development, including the inherent ethical aspects.

Introduction

Today the public policy making is changing in a fundamental way, also due to the introduction of digital media, and due to the impact of modern technologies on the society as a whole. On the one hand, the public policy making has to take this into consideration when implementing its research policy. On the other hand, the public policy making and public administration is itself subject to these new developments. Consequently, the public administration cannot be viewed separately from these tendencies. Technological development, society and public administration have become mutually contingent, including the ethical dilemmas that emerge in the context of technological research.



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As pointed out in the Work program 2011 “Science and Society”, in the terms of the Seventh Framework Programme, activities in the field of Science in Society aim to “stimulate, with a view to building an open, effective and democratic European knowledge-based society, the harmonious integration of scientific and technological endeavour, and associated research policies in the European social web, by encouraging pan-European reflection and debate on science and technology and their relationship with the whole spectrum of society and culture” [8].

The present paper will be based in the initial findings yielded from the author’s research within the framework of the European Union FP7 Project “The Ethical Governance of Technologies” (EGAIS <http://www.egais-project.eu/>) at the University of Namur, Belgium regarding the involvement of various stakeholders in securing ethically sound innovative technological developments and the views of relevant public administrators regarding the challenges that need to be addressed in this context. Further on and proceeding from these findings the author will attempt to present other findings and conclusions based on continued studies on the changes in modern governance patterns, especially regarding responsible research and innovation.

Involvement of Multiple Stakeholders

Research policies and the respective governance issues with their ethical implications today has become part of public discourse – as political, legal and social debate. At the same time “the rise of ethics as a public discourse may be interpreted as a symptom of the moral crisis arising in complex modern societies that can neither be solved by an implicit or explicit moral tradition nor by state policy alone”[9]. The novelty of the present situation is that “ethics is considered to belong to the public debate at an institutional political level”[9]. Thus, we can see that ethical discourse on science and technologies is not any more a prerogative to any particular social, religious, academic or political group, but has become contingent on multiple stakeholders.

While recognizing society as an important actor in the debate on research and development, we have to point to several important aspects of general nature that create difficulty in addressing the potential problems, including the ethical issues. In the context of the new global risks and the unprecedented degree of uncertainty people find it difficult to position themselves regarding what is an ethical action or approach in relation to technological development, and in what way and how far our individual responsibility reaches.

Consequently, we are faced with the dilemma of our individual versus collective role responsibility. These are the two sides of the dilemma – to face the inherent potential uncertainty of the effects of technological developments and to chose the best possible way for action at individual and also societal level. As argued by Kimppa, it is important to address these issues in order to preserve an ethically viable society: “The unintended consequences of rapid technological development and explosive knowledge creation have decreased the area of personal ethical choice by directing the possibilities open to us and at the same time closing other possibilities. Personal and institutional changes – increases in roles and in institutions – have also decreased opportunities for personal ethical choice. Since role responsibility – which follows from these – is clearly not enough for the new technologically and socially complex



times, we need an ethics of collective responsibility. Discourses, fact analysis, foresight, even constitutional change may be needed to ensure an ethically viable society” [3].

In order to address these problems in a concrete way, within the framework of the EGAIS project an empirical study was carried out, based on the theoretical framework developed within the EGAIS project. In the subsequent chapter of the present paper we will present the analytical grid the author of the paper developed within her EGAIS project research in order to be able to prepare a questionnaire for the interviews with the relevant EU officials. The interviews became an important source of information regarding the implementation of ethical framing of FP7, including the governance issues. Based on the results of the interviews we were able to draw conclusions regarding our research problems. Further on the background of our empirical study will be presented and the key approaches for yielding results outlined.

Empirical Study – Based on the Analytical Grid

As a result of our empirical study through interviews [11] with relevant EU officials we were able to identify the key challenges in the governance of the EU research policy within the framework of the EU 7th framework program, as perceived by these stakeholders. Here we will shortly present our analytical grid. It was based on the theoretical framework of the research within the EGAIS project. The analytical grid was necessary for the development of the questionnaire for the field study (interviews). The questionnaire had to be based on a solid theoretical background, in order to collect data for analysis regarding the ethical framing of the FP7 research policy. The key steps in the development and implementation of the analytical grid were:

- 1) determining the domains for analysis:
 - a) ethical issue identification and specification; b) governance arrangements; c) implementation; d) ethical approach; e) reflexivity;
- 2) specifying the parameters within each particular domain;
- 3) formulating the questions for the questionnaire (for interviews) – in order to yield data and material in compliance with our parameters in each specific domain for analysis;
- 4) creating a grid for analysis of our empirical findings by taking into consideration:
 - a) our field of inquiry – the representation of ethics and governance reflexivity in technological research and development, as part of EU (FP7) ICT research policy within the EU 7th Framework Program; b) our research problem – the effectiveness of ethical reflexivity in FP7 ICT research projects as part of the implementation of EU research policy; as well as the focus of the present thesis on the governance arrangements in the implementation of the FP7 framing.

Further on we will mainly concentrate on the domains for analysis and the questionnaire, since these are the issues relevant for our present paper.

Domains of analysis and parameters. The parameters we were interested in were organised according to the domains (aspects) of analysis outlined above. We did not intend to give an exhaustive description of the content within each domain, but instead we intended to give an orientation by presenting the parameters as basis for our questionnaire.

1. Ethical issue identification and specification



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In this domain it was envisaged to identify – how policy makers determine what ethical issues to look for and how to identify them in general terms. Our interest was focused on – what sort of framework is used to decide what issues are ethical.

2. Governance arrangements

In this domain it was envisaged to identify the governance arrangements and approaches. Our interest was focused on – what institutional arrangements were implemented within FP7 to deal with ethical issues. The key institutional arrangements we were potentially implying were:

- *Ethical guidelines*
 - a) to assist proposers in identifying potential ethical issues arising from the proposed ICT research.
- *Ethics check list*
 - a) to identify the main ethical dilemmas that arise in research and indicates how each topic might be addressed to ensure compliance;
 - b) to promote identifying the expert(s) within project promoter's organisation or consortium that can provide further advice.
- *Experts and expert panels*

The experts evaluate the projects as to the existence of ethical issues.
Expert panels come to a uniform approach.
- *Ethical Committees*
 - a) These are National Ethical Committees which verify the compliance of the research to the specific national legislation;
 - b) They ensure ongoing discussion and deliberation on ethics and ethical framework in research.
- *Ethical Review procedure and Ethics Review report*
 - a) a procedure to secure compliance with the FP7 ethical framework.
 - b) assistance to project promoters.
- *Ethical follow up and audit*
 - a) a monitoring and preventive measure;
 - b) assistance to projects.
- *Public consultations*
 - a) carried out in the process of adoption of certain relevant documents within the FP7 ethical framing. For example, when adopting the Ethical Guidelines;
 - b) used when discussing controversial research issues.

3. Implementation

In this domain it was envisaged to look at the implementation of the FP7 ethical framing. Our interest was focused on – in what way the FP7 ethical framing is being implemented in practice and if the results of implementation are in compliance with the intended effect.

4. Ethical approach

In this domain it was envisaged to look at the theories, approaches or principles that have been used in the development of the FP7 ethical framing. Our interest was focused on – what have been the underlying assumptions when developing the specific ethical framing.



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5. Reflexivity

In this domain it was envisaged to look at the different levels of reflexivity existing within the respective institutional settings and in the development and implementation of the ethical framing (if there is also second order reflexivity present). Our interest was focused on – not only the way how ethical issues are being determined but also if there is reflection on the very process of determining of what an ethical issue is (what is the role of experts and ethical committees, should ethical guidelines be used etc.). Our interest also lies in determining if the governance arrangements are suited to address potential ethical issues before they arise and are there arrangements that allow the involved actors (stakeholders) to overcome the presuppositions of specific framings.

The questionnaire. The questions that arose within the domains according to the parameters were incorporated into the questionnaire. The questionnaire potentially involved responses allowing for analysis of the nature of the construction of the ethical norms and the existence of ethical reflexivity in the respective EU research policy and within its governance arrangements.

Implementation of the analytical grid. This exercise (that we performed during our research in the EGAIS project only partly bears link to the research interest of the present paper. Therefore, only key issue will be presented for more comprehensive information purposes.

By the implementation of the analytical grid we understood the yielding of data and material from our field study (results of the analytical grid). After the results had been obtained, we had to assess these results, so that we could determine the effectiveness of addressing ethical issues in EU research policy regarding FP7. We also wished to assess the effectiveness of institutional governance arrangements.

What we were especially interested in was to discover the extent of reflexivity in the respective governance arrangements, specifically, how the framing of the problem is being addressed and whether reflexivity is present. We were also interested whether there was reflexivity on the conditions of discussion and whether there is reflexivity of the reversibility of the construction of the norm (i.e., the construction of the parameters that will condition the insertion of the norm into a concrete world) – these were specific EGAIS project research questions. Finally, we wanted to see if the relationship between the context and the norm is being constructed, and what are these relationships.

We also tried to see if in the governance approaches by the European Commission a particular issue had any particular effect on the ethical framing (ethical trajectory change) or changed the governance procedures.

We would like once more to point out that our analysis was rather qualitative than quantitative. Therefore, we much relied on the empirical material obtained through our interviews in order to: identify the various governance tools; assess their effectiveness; see how justified is the use of these tools. This enabled us to see how ethical issues are being determined, how the problems are framed, and how change in the framing is carried out regarding for improved and innovative governance arrangements.



Some of the Results of the Empirical Data Analysis

As a result of the empirical data analysis we were able to identify certain problems as perceived by the relevant EU officials in relation to governance issues in the context of innovative research policies. The key challenges and drawbacks referred to by EU policy makers in their interviews were stated or implied as follows (in order to present an overview we performed some generalisation of the presented problems according to our research interest):

- 1) The unprecedented level of uncertainty in research has created a new technological culture and also ethics needs to be addressed in a new way;
- 2) Ethics is being seen as a questionable field for legally binding norms;
- 3) The historically novel contradictions that exist between the value spheres cannot simply be eliminated through political decisions, and political system must react independently of the subjective will of political actors;
- 4) Limitations by individual decision making;
- 5) Limitations of collective decision making;
- 6) Negotiations with social groups under the conditions of unequal power;
- 7) The question of the relationship of ethics and the effectiveness of respective legally binding norms regarding ethics remains open;
- 8) Non-ambiguous roles and capacities (mandates) of various stakeholders;
- 9) The very democratic procedure may not any more be an answer in principle regarding the various interests of stakeholders;
- 10) The divide between the ethical and scientific communities;
- 11) The current mode of institutionalisation of ethical expertise.

Apart from these empirical findings, we did relevant literature search, including EU policy papers. Much in compliance with our empirical findings, Von Schomberg, for example, points out that “the need for a differentiation of authorized discourses stands at odds with the impossibility of such differentiation on the level of actual problems” [4]. Thus, clearly, there is an indication that the problem of ethics cannot be addressed purely on the level of content, but structurally new solutions need to be sought. Furthermore, according to Schomberg, the major ethical challenge we face today is that “techno-scientific applications can remain ethically problematic even in cases where scientists and engineers have the best possible intentions and users have not conscious intention to misuse or abuse” [5].

As pointed out by Schomberg, “as a minimum we would require an ethical framework that addresses both the aspect of unintended side consequences (rather than intentional actions) and the aspect of collective decisions (rather than individual decisions) with regard to complex societal systems” [5].

According to Von Schomberg “a successful response to uncertainty is not a question of what the better political option might be, but rather a structural reaction to the growing problem of uncertainty, which could usher in a new evolutionary stage of social development [4]. Consequently, we could come to a conclusion that the challenges of governance of technological research we identified during our empirical study are much in compliance with the theoretical approaches presented in relevant EU research and innovation policy papers. This strengthened our interest in further studies in the field, and in the subsequent parts of the paper



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we will discuss some possible approaches for further discussions and research in the field of ethically sound research governance.

Is Compromise at Moral Level a Solution?

To develop further on some innovative approaches to ethical public administration of research and innovation (and being aware that processes in society cannot be controlled or directed by arbitrary means and being aware of a need for a comprehensive and in a sense “realistic” approach), we would like here to present the notion of ‘compromise’ with all its implicit positive and negative connotations. In the context of public deliberation, according to Bohman, “compromise in an ordinary sense is all about coming to an accommodation or making concessions”. It involves tradeoffs and balances of interests – making concessions of one’s own for equal by others. If these interests are backed by moral reasons, we often evaluate such tradeoffs or concessions as involving “compromising” ones beliefs or losing integrity [2]. At the same time Bohman points out that “in cases where ‘common human reason’ gets us no further, there is no other choice but to reach a compromise at moral level [2].

Moreover, for deep conflicts Bohman sees some form of public compromise as inescapable. He argues that “cultural disagreements do not only have their source in difference in values. Different cultural frameworks may assign various problems or issues to different forms of reason; these disputes are about justification and adjudication themselves and thus give rise to the need for the exercise of public reason” [2]. Consequently, we can conclude that the complexity of the issue of ethics is not rooted solely in the difference of values (which by itself is an important aspect in the overall EU policy), but is heavily rooted in the potentially different forms of reasoning. This should be taken into account also when deliberating on the various forms of governance, also with regard to ethics in research and technological development.

Capacitation of Actors versus Moral Compromise and the Role of Learning

Once again reflecting on the policy deliberation and public discussion in the context of the governance in technological cultures, we should recognize the role of knowledge and the role of learning regardless of the status of the actor or stakeholder, or more precisely, regardless the role someone might wish to ascribe to the particular actor. As pointed out by Bijker, “citizens, stakeholders, patients, and users all have their own views, opinions, and knowledge of this society with its science and technology [1].

Democratic governance of technological cultures requires that those forms of knowledge and experience are recognized and allowed to play a role, together with the specific – but in a newly recognized sense limited – expertise of scientists and engineers [1]. To be more specific, and in regard to the above argument by Bijker, we would like specify one of our key findings regarding the role of learning in the process of the implementation of ethics. Within democratic governance, in order to minimize the need for the unavoidable moral compromise (as cited above), the ways for “capacitation” of the various actors and stakeholders should be sought, thus promoting the implementation of the second order reflexivity in the process of the construction and implementation of ethical norms in respective context. This is also closely



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linked to ‘social learning’ which is “highly interrelated with the generation, construction and representation of scientific knowledge and the openness, flexibility and variety of the governance systems of collective decision making” [13]. Through this the real capacitation of actors takes place.

Suggested Ways for Improved Ethical and Innovative Governance – Recommendations

As pointed out in the Policy Synthesis of EU Research, Results on Science, Governance and Society: “With all its [science] great benefits, and its central role in ‘the knowledge economy’, it is recognised to need something for its control and governance, external to its own institutions, and more effective than the existing governmental institutions have hitherto provided. This other force we call, for lack of better term or idea, ‘society’” [7].

Having carried our respective research and analysis, we do not have the pretension here to advise the European Commission on the approaches to the ethical framing of FP7. On the contrary, being aware of the complexity of the task and having observed the high level of the policy deliberation and the clear and well functioning legal framework with respective procedures put in place for the implementation of the respective EU policy, in the first place we would like to recognize the enormous commitment on the part of the respective EU institutions and their structural units in securing a smooth and well justified implementation of the FP7 ethical framing.

However, based on our theoretical framework and our respective research, we would like to present the following suggestions:

At the level of EU Commission

- 1) to review and reconsider the role and functions of national ethical councils (NECs), given the fact that historically these committees were established primarily in the context of medical research; today the scope of the activities of NECs is much broader, and thus the member states should be encouraged to reconsider their scope of activity, paying much more attention to ethics in research in general (also the titles of these committees should not be medicine or biomedicine specific, as is the case in many member states). Also regarding the functions of NECs, apart from securing the compliance to the national legislation, more reflexive and deliberative approaches should become part of the activities of NECs;
- 2) new approaches to the issue of scientific and ethical expertise should be sought, in order to address more effectively the recognized gap between the scientific committees and NECs, and to promote deliberation on the issue of what ethical expertise means in the context of today’s technological culture;
- 3) the FP7 projects should be more encouraged to have ethical advisory boards as part of their projects ethics institutional aspect; more encouragement should also be given to projects to envisage specific ethical components in their work packages (as well as an assessment mechanism of their ethical reflexivity impact). This would promote the reflexive and deliberative processes as well;



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- 4) more cooperation should be encouraged between the FP7 projects which are specifically dealing with ethical issues. This could generate high level discussions on innovative ethical frameworks in EU research policy;
- 5) new and realistic approaches should be sought to institute ethics also beyond the well established and possibly indispensable legal frameworks;

At FP7 project level

- 6) by bottom-up approach and pro-activity, to stimulate discussion with the European Commission regarding the implementation of ethics in FP7 as a meaningful process (as opposed to fulfilling formal requirements), as well as discussion with NECs;
- 7) to stimulate relevant discussion within project consortiums, with an involvement of various stakeholders in order to raise awareness and stimulate pro-activity and mutual learning.

As an integrating element to these two levels, the learning function might become of key importance (learning as a potential “solution” was also mentioned in most of the interviews with the EU officials). Possibly, the “learning operation” could take the form of joint workshops among EU officials, academic representatives, project researchers, experts, general public and other stakeholders, and would concern specific case studies in order to ground the learning in actual practice and promote the implementation of the second order reflexivity approaches among the participants.

More specifically, we would suggest that:

- 1) the role of NECs should be promoted in safeguarding the deliberation (and the corresponding conditions for deliberation) at national level (with respect to the subsidiarity principle). Given the existing good co-operation links between the European Commission and NECs, more “uniform” approaches might be promoted in the EU and among various stakeholders;
- 2) the role of ethicists in various institutional contexts should be reconsidered and enhanced, given the need to adhere to a normative horizon (with the ethical imperative in mind) during the discussion or deliberation process. By this also the impact of ethical reflexivity could be assessed more effectively;
- 3) the approaches to technology assessment should be reviewed in the above mentioned context, in order to avoid misinterpreting and replacing ethics by social acceptance;
- 4) the status of ethics in EU research should be promoted through empowering the role of ethics in the decision making on EU research. This is, however, feasible only through a continuous awareness raising and integrated endeavours at the level of governments of EU member states at the EU level.

It should be pointed out that our pretension is not to resolve the issues, which is clearly the question of high level policy and research agenda. At the same time, we would like to point out that the increasing tendency for the involvement of various stakeholders, including the civil society, in EU funded research (both, as an object and subject for research), is an indicator that public discussion and policy deliberation approaches are a force to be counted with. As argued by Bijker “the role of scientific advisory institutions is thus different from what it was centuries ago, when they were government’s one and only window to the truth about scientific matters.



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But they are still crucially important as one element in the broader governance of technological cultures [1].

Thus, by being able to determine the new role of scientific (and/or ethical expertise/knowledge), also the new approaches to democratic governance of new technologies and their ethical frameworks will be enhanced and enriched greatly. According to Bijker “...relation between scientific advice and the wider democratic governance of technological culture – more specifically, about how to characterize concrete risk situation in which political decisions are needed and scientific advice is called for. This characterization is an important element in the articulation of the public issues, and it will constitute to the shaping of political objects [1]. Or alternatively, as pointed out by Luks and Siebenhüner, one crucial factor in this context is the relationship between governance and the production of knowledge – and the fact that the line between these two realms has become blurred [13]. Research and innovation increasingly has to become ‘responsible’, and in compliance with the latest EU policy developments, the following working definition for responsible research and innovation has been proposed: responsible research and innovation is a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view on the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society) [10]. At the same time „effective ... governance must thus be *adaptive* in ... dynamic environment. This requires an integrated framework allowing governance to evolve in ways that are fair and respectful of participants and their interests, as well as broader constituencies...” [14]. As also corporate governance arrangements “thus seem relevant in the context of innovation management, we can derive implications for both policy makers and innovation researchers” [15]. This brings us further in our understanding what ethically sound EU research and innovation policy is, and what the corresponding governance arrangements to support these policy developments are.

Conclusion

Having found and being aware that a comprehensive and well functioning system has been put in place in the European Union with regard to the development and implementation of the ethical framing of FP7, and recognising that one cannot overlook the need for the conventional institutional and legal mechanisms to secure a sound operation of this system from the juridical and managerial point of view, as well as from the point of view of European democratic tradition, we would like here to refer to one of the key terms within our research – the second order reflexivity. No system can be perfect, and in our opinion, the relevant issue is to secure a continuous discussion and deliberation on this system with the involvement of a broad spectrum of stakeholders. Only in such a way we can speak of foresight knowledge, as well as colour positively the term of ‘moral compromise’ and the make an attempt to approach the desired moral horizon as closely as possible.

Thus, society can be viewed as a powerful force in today’s technological culture, provided the key challenges are being adequately addressed to capacitate this powerful actor in relation to the existing cognitive framings. Consequently, and in compliance with our research findings, 1) awareness raising on ethics should be further promoted among the scientific,



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academic, policy making communities, as well as among other relevant stakeholders, including the general public; 2) reflexivity, and especially second order reflexivity should be promoted to become an inherent part of the policy making and policy implementation process; 3) learning should be implemented at all levels and stages in addressing ethics in EU research; 4) new mechanisms should be sought that would allow for comprehensive governance approaches with an effective stakeholder involvement, taking into consideration the above mentioned challenges and their addressing.

Our research with its rich empirical material has shown us that the ethical framing of the EU research policy is a broad and fascinating field for future studies. Given the limited scope of the present work, we have been able to analyse this field within our set limits in regard to our specific research problem. At the same time, the collected empirical material and the acquired competences and skills is a good precondition for relevant future studies.

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IMPACT OF TRANSIT SERVICES EXPORT ON LATVIAN GDP

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Abstract

The improvement of transport system and the increase of the international transit services export volume improve the competitiveness of national firms in foreign markets, promote production and employment growth, as well as increase state budget revenues. International transit services forms approximately a half of the services export in Latvia. For more accurate and complete assessment of the international transit services export contribution to the national economy, is necessary to develop the methodology for calculating this contribution. The objective of the paper is to identify which theoretical models of transit services assessment can be used to assess the impact of international transit services export on Latvian GDP. This analysis can be useful in the development and planning of transit-related projects, as well as in the transport sector development in general.

International transit is the part of transport and communications sector in Latvia that was 12.5% of Latvian GDP in 2010. Latvian international transit services consists of seaports, railways, road transport, warehousing and customs brokerage, logistics centers, as well as shipping agents, forwarding agents and petroleum and petroleum product pipeline operator services. The turnover of Latvia's seaports is made approximately 90% of transit freight. Approximately 85% of all transported freight carried by railway through Latvia territory is



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transit freight, mainly from Russia and Belarus to the ports of Latvia (East – West transit corridor).

The methods of the research are systematic, logical and comparative analysis of scientific literature, analysis of statistical data and expert method.

Introduction

The objective of the paper is to identify which theoretical models of transit services assessment can be used to assess the impact of international transit services export on Latvian GDP. Transit is grasped as the transportation of goods and passengers via third country. The methods of the research are systematic, logical and comparative analysis of scientific literature, analysis of statistical data and expert method.

International transit transport forms approximately a half of services export in Latvia. For more accurate and complete assessment of the international transit services export contribution to the national economy, is necessary to develop the methodology for calculating this contribution. This analysis can be useful in the development and planning of transit-related projects, as well as in the transport sector development in general.

This paper analyzes the contribution of the international transit transport to the economic development of the country, as well as Latvian transit services export and theoretical solutions for assessment of the impact of transit services export on GDP.

Transit and Economic Development

The improvement of transport system and the increase of the international transit services export volume improve the competitiveness of national firms in foreign markets, promote production and employment growth, as well as increase state budget revenues.

K. Gwilliam argues that the objectives of transit policy may be expressed at three different levels [1]. At the first level there are economic objectives of government that might be expressed as the aim of maximizing social welfare. Applied to transport it might appear as minimizing the total generalized cost of urban transport [2], promoting of “social inclusion” [3], minimizing the environmental impact of transport [4], promoting to increase state budget revenues from international transit services export [5] or promoting economic growth [6]. The second level consists of instrumental or tactical objectives at which, for example, might be appeared that maximizing the public transport modal share or minimizing transport fuel consumption might be the best way of pursuing the fundamental environmental objective. Thirdly, the operational goals might be expressed to minimize the cost of transport to the municipality or state budget [7].

In the end of the 20th century and in the beginning of 21st century T.R. Lakshmanan D.A. Aschauer, P. Mackie, J. Preston, D. Bazaras, D. Banister, Y. Berechman and other researchers have studied economic consequences of transport infrastructure and transport infrastructure investments on economic development. Despite the link between international transit transport and economic development have been not sufficiently studied. Transit transport services export in Latvia provides the use of transport infrastructure capacities and the development of transport



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infrastructure, as well as the revenues from transport services (sea transport, air transport and others transport) constituted 49.2% of the services export in 2010 [8].

Transit policy addresses simultaneously a number of economic objectives. Transit consists of its international and urban form. International transit is much less studied than transit urban form. Moreover, as the J. Preston argues, that there are link between transport and socio-economic activity because “transport is an intermediate good that is a complement to almost every other good” and “transport demand (particularly if measured by distance travelled) will be determined by where economic activity takes place and (in terms of frequency) when it takes place” [9]. These organizational and financial aspects make difficulties to assess accurately the contribution of international transit (and transport in general) to economy.

There are three analytical approaches for the assessment of the nature and magnitude of the contribution that transport infrastructure makes to the economy. [10]. The first is microeconomic approach – transparent and causal – describing (a) the direct time and cost savings from transport improvements, (b) the indirect impacts of these cost and time savings in the form of lower assembly costs in production and gains from logistical reorganization, and (c) the associated costs including external costs. T.R. Lakshmanan highlights that “this approach, typified by Cost-Benefit Analysis (CBA), is deficient in not treating the further “network” or the general equilibrium effects of transport improvements on transport-using sectors in the broader economy” therefore “the current concern in the field to go beyond CBA analysis towards developing methods which capture the broader economic benefits of transport infrastructure investments” [6, p. 1].

In the context of deficiencies of microeconomic approach in last two-three decades macroeconomic modelling stream has appeared. In the macroeconomic models are identified economy-wide cost reductions and output expansions deriving from transport infrastructure [11] [12], arguing that there are externalities to investments in infrastructure which are not captured in microeconomic CBA studies. Over 100 macroeconomic models offer positive and modest contribution of transport infrastructure, but this macroeconomic approach has two weak points. First, the sharp differences and conflicts among these models on the magnitudes and direction of economic impacts of infrastructure, and second, these macroeconomic models offer little clue to the mechanisms linking transport improvements and the broader economy [6] [13] [14].

The third approach that might be distinguished is extensive literature on the broader economic consequences of transport investments on economic processes. In the framework of this approach the Economic Historians argue economic transformation attendant on large past investments in railroads and waterways around the world showing how transport infrastructure improvements open up markets, achieve gains from trade, promote inter-regional integration and enhance the performance of factor markets. One of the key findings in the approach is that the upshot of full effects of transport infrastructure is the growth of total factor productivity (TFP) in the economy.

All three approaches described above can be used to assess the contribution of international transit infrastructure and infrastructure investments to economy. The application of the approaches depends on the objective of the research. The objective of this paper is related to the assessment of the impact of the transit services export on GDP therefore microeconomic approach can not be applied because it focuses on analyzing of the improvements in productivity of individual firms due to transport infrastructure investments. While



macroeconomic modelling and the approach on the broader economic consequences of transport investments on economic processes can be used to assess the impact of the international transit services export on GDP.

International Transit Transport Services and the Economic Development of Latvia

Two fields of scientific literature on the economic consequences of transport can be distinguished where macroeconomic modelling dominates. First relates to seeking links between investments in transport infrastructure projects and economic development [15] [16] [17], but second analyses the long-term contribution of transport infrastructure to economy [9] [18]. D. Canning and E. Bennathan have made the estimation of the elasticities of output from transport infrastructure with respect to public capital for a panel of countries in different stages of development [17] (see Table 1). There is an inverted U shape, with higher elasticities in middle income countries and lower in the low and the high ends of the income distribution. In 2010 in Latvia the average gross monthly wage of employed was 455 LVL or 633 EUR [8, p. 76] and GDP at constant prices was 3039 LVL or 4324 EUR (at current prices – 5688 LVL or 8093 EUR) [19] therefore Latvia can be classified as country in middle quartile of incomes and transport infrastructure productivity can be comparatively high.

Table 1

Transport infrastructure productivity in countries at different stages of development

	Countries in lower quartile of incomes	Countries in middle quartile of incomes	Countries in upper quartile of incomes
Output elasticity of paved roads	0.05	0.09	0.04

Source of data: Canning and Bennathan, 2001

The approach of broader economic consequences of transport argues wider economic benefits of transport infrastructure investments. Figure 1 offers contemporary version of what the Economic Historians call “forward linkages” of transport infrastructure [20] [21].

As transport infrastructure and service improvements lower costs and increase accessibility to various market actors – input suppliers, labour and customers – market expansion, increased integration and sustaining growth will ensue. In the short run such changes ripple through the market mechanisms reinforcing employment, output and income. In the long run transport service improvements activate a variety of interconnected economy-wide processes and yield a range of sectoral, spatial and regional effects that augment overall productivity. These underlying mechanisms can be organized into [22]:

- gains from trade,
- technology diffusion,
- coordination device and the “Big Push” and
- gains from agglomerations, which are made possible by transport.

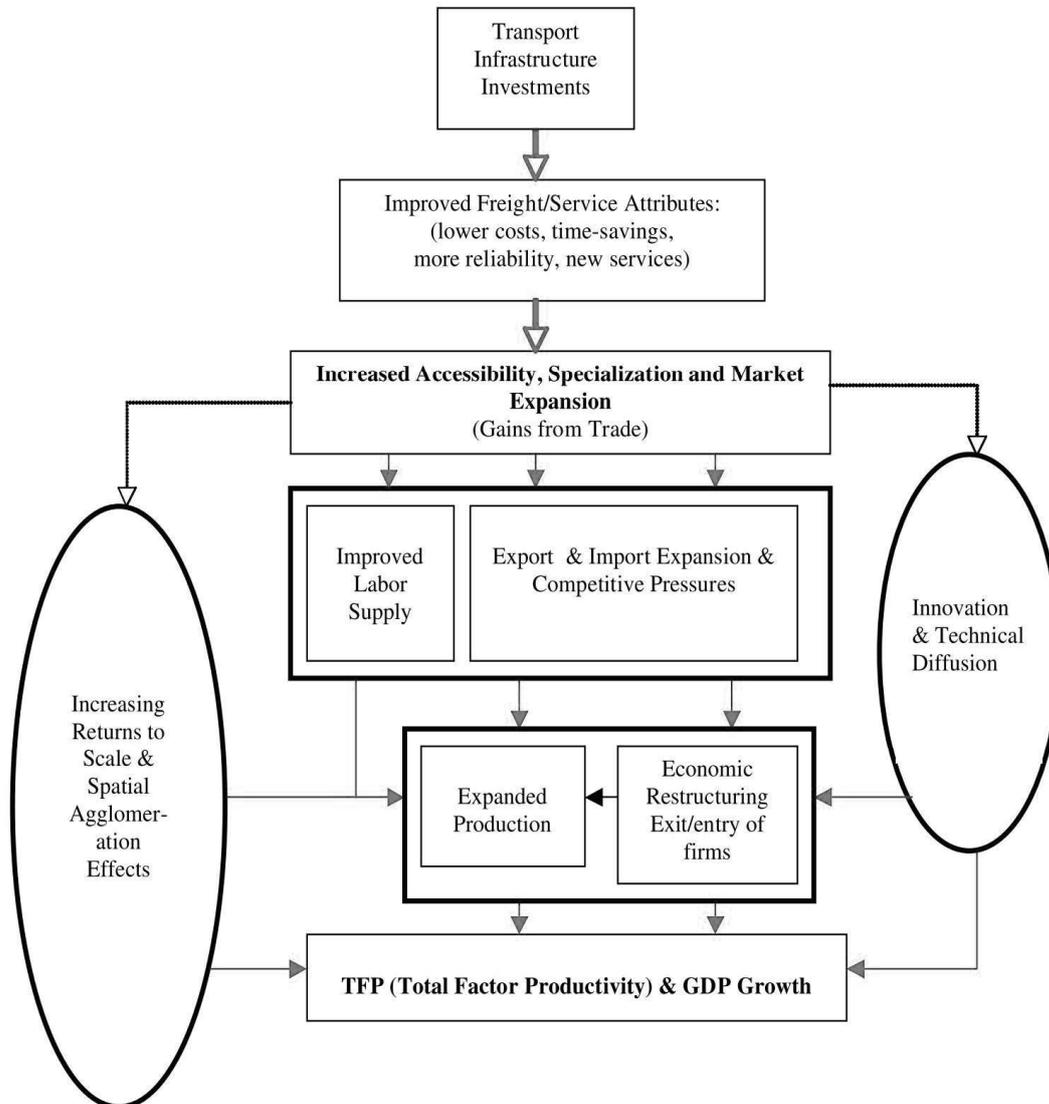


Figure 1. Transport infrastructure and economy-wide benefits (Lakshmanan, 2011, p. 9)

The US Interstate Highway System, the Trans-European Network (TEN) and super-efficient ocean ports all contribute to growth-growth arising from specialization and trade. In Latvia the similar effect for development was made by building of railways in the 19th century, as well as by building of the multimodal sea ports and trunk roads in 20th century. But in the 21st century the broad impulse for economic development can be made by rapid development of the Riga International Airport and building of the new high speed railway “Rail Baltica” that will connect railway transport of Baltic States and Western European countries creating completely new opportunities for passengers and freight transport.



The flows of freights are the main factors of the transport system functioning. Market determines the flows of transport, and their repartition among the corridors of transport – the concrete systems of the transport, technical, organizational and legal conditions of transport linkage [5].

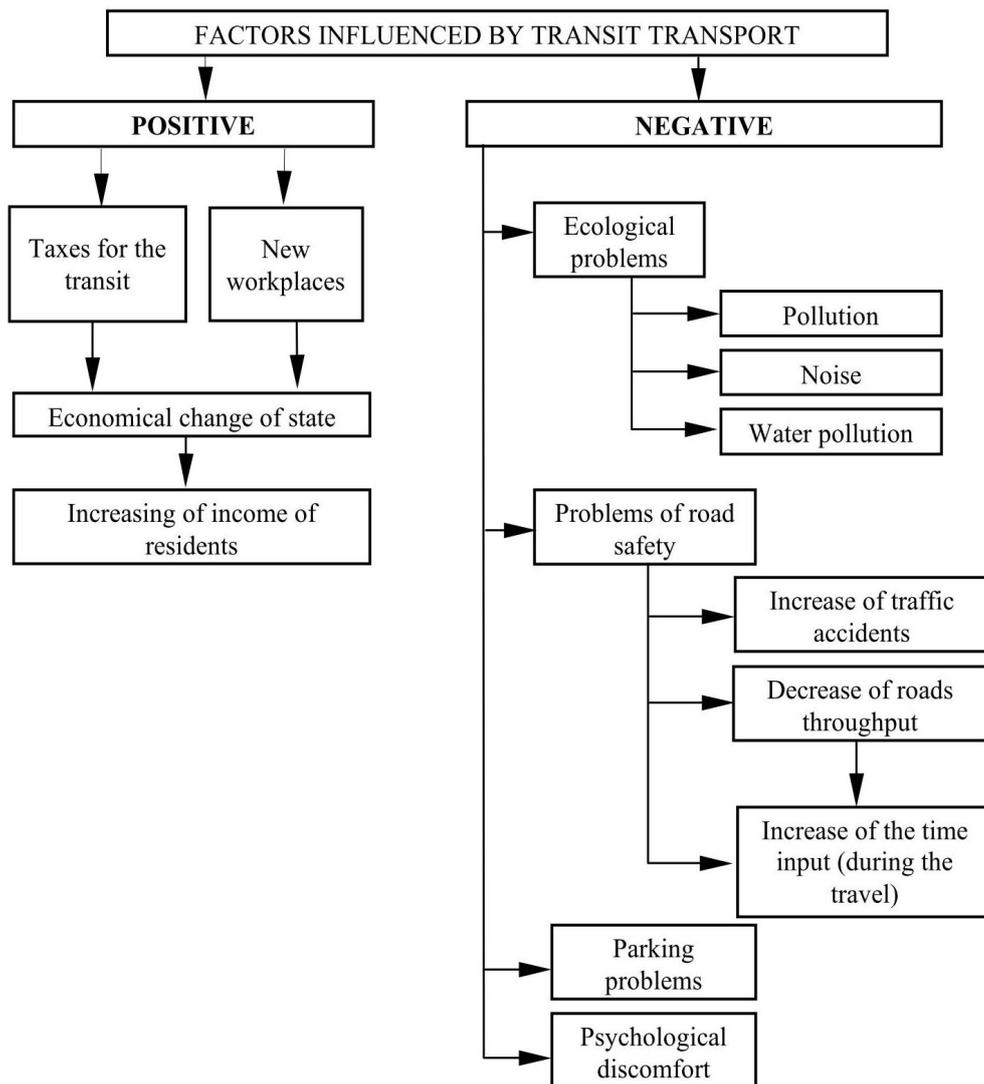


Figure 2. Factors influenced by transit transport (Bazaras and Palšaitis, 2003, p. 251)

D. Bazaras and R. Palšaitis have developed the model that shows which factors are influenced by transit transport (Figure 2) [5]. The transit transport profitable effect for the economy can be evaluated by counting paid-in taxes (for example, entry, transit, ecological, using of infrastructure). The transit states income could consist of the prices of taken services



and the goods, which were bought by transit sector enterprises. Latvian authorities in their official statistics estimate the contribution of different economic sectors by the numbers of indicators: output volumes and number of employed of all economy sectors, dynamics and structure of investment sectors, as well as structure of all economy sectors. International transit is the part of the transport and communications sector in Latvia that was 12.5% of Latvian GDP in 2010 employing 9.9% of total employed in the country [8, p. 25]. The revenues from transit transport services (sea transport, air transport and others transport) constituted 49.2% of the services export in 2010 [8, p. 24].

There is no explicit assessment of what is the contribution of international transit to the national economy and its development in Latvia. The Ministry of Transport has estimated that the international transit services each 10 million tones carried by Latvian territory give at least 1% of the total GDP [23, p.11]. Accordingly the total contribution of cargo transit to the Latvian GDP might be about 6% in 2010. One of the problems in the estimation of international transit contribution to economy is the lack of correct methodology that is not so far sufficiently studied question in the science.

The problematic issue in the assessment of international transit is the calculation of the transit freight that is transported and freighted. R. Burkovskis analysing the inter-state flows of transport, hypothesised that the joint flows of goods and the values of economic variables are related according to the formula [24]:

$$Q_K^{OD} = f(P_K^{OD}, \tilde{P}_K^{OD}, I^D, D_m), \quad (1)$$

where Q_K^{OD} is the quantity of goods K, which were made in O country and sent to country D;
 P_K^{OD} is the price after the goods are delivered to country D (the production expenses plus taxes for the transportation);
 \tilde{P}_K^{OD} is the price of goods K, which were delivered to country D, if K had been bought some where (not in country O);
 I^D is D countries;
 D_m ($m = \dots M$) is a range of possible variables, which show the unvalued characteristics of production and consumption in the analysed countries.

The data concerning inter-state transportation can be taken from the statistics of the loads/goods conveyance and the expanses of goods production can be found in the same way, but this information must be taken by their producers.

In Latvia transit transport services export is formed by road haulage, railway transport, sea transport, air transport and pipeline transport. Latvian transit services consists of seaports, railways, road transport, warehousing and customs brokerage, logistics centers, as well as shipping agents, forwarding agents and petroleum and petroleum product pipeline operator services [25]. The turnover of Latvia's seaports is made approximately 90% of transit freight. Around 80% of transit freight transported through Latvia is handled through three export-oriented big ports (Riga, Ventspils and Liepaja) that carried 59.6 million tons cargo in 2010 [26]. These three ports are connected to TEN-T road and rail, as well as two oil and one oil



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products pipelines to Ventspils. Approximately 85% of all transported freight carried by railway through Latvia territory is transit freight, mainly from Russia and Belarus to the ports of Latvia (East – West transit corridor) [27].

The main freight transporter by rail is the State Joint Stock Company “Latvijas Dzelceļš” carrying about 80% of the total volume of transit cargo that is transported by rail in Latvian territory. In 2010 the volume of cargo transported by SJSC “Latvijas Dzelceļš” was 49164 thousand tons (Figure 3).

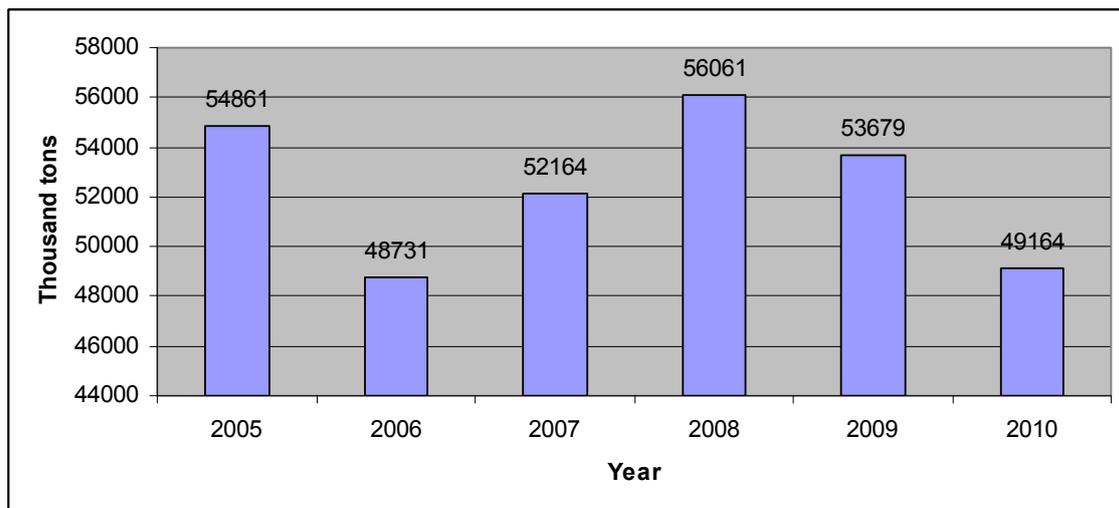


Figure 3. SJSC “Latvijas Dzelceļš” volume of freight transported (thousand tons) 2005-2010

Source of data: “Latvijas Dzelceļš”, 2011

The road haulage is also used in international transit activities in Latvian territory. The most of the international transit transport volumes are related with transporting of Russian and German cargo. The demand for car transport services for approximately 2/3 parts depends on domestic demand, but the third is related to external demand – mostly it is transit services [23, p. 4].

The Latvian transit corridor of oil and oil products is formed by trunk pipelines of oil and oil products together with oil terminals. The trunk pipeline system includes two oil pipelines and one pipeline of oil products in the territory of Latvia. The oil pipeline Polotsk—Ventspils with capacity of 16 million tons per year was put into operation in 1968, additional parallel pipeline of oil products with capacity of 5 million tons started operating in 1971 [29]. In order to ensure the Mazeikiai oil refinery with oil, in 1980 the pipeline Polotsk—Birzai—Mazeikiai was put into operation. Up to Birzai the pipeline runs parallel to the Polotsk—Ventspils pipeline. In 2010 only oil products pipeline to Ventspils (Ventspils port) has used to transport oil products from Polotsk to Ventspils but the oil pipeline Polotsk—Ventspils is not used since 2007. It is related to decision of Russia to divert oil transit through the newly built its own sea port in Primorsk [30]. In last years for similar reasons oil pipeline Polotsk - Birzai - Mazeikiai is not used for oil transportation.



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SJSC Riga International Airport is the only international airport in Latvia. This airport has growing number of transit and transfer passengers – 1.75 million transit and transfer passengers was serviced in 2010 [31]. The Ministry of Transport expects that the number of transit and transfer passengers serviced in the airport could reach 3.74 million people in 2013 [32].

All existing international transport modes and networks in Latvia operate in environment of international competition, and mainly compete with the other Baltic States (Lithuania and Estonia), Finland and Russia.

Both the public and the private sector invest in development and modernization of transport infrastructure. The private sector focuses on the modernization of sea ports and logistics infrastructure. The country's largest investments in transport infrastructure are used primarily for development of transit transport directions, where European Union structural funds and national budget are used. The statistical data analyzed above indicates that the international transit cargo transportation dominates in rail, sea port and pipeline transports that confirm the importance of international transit on exploitation of transport capacity and transport development in general. Currently in Latvia the most actual and extensive transport infrastructure project is “Rail Baltica” railway line where one of the essential aspects in economic justification of the project is providing of necessary transit cargo flow [33].

Conclusions

The contribution of international transit to GDP is not so far sufficiently studied both in Latvia and abroad. The most appropriate theoretical solutions that can be used for assessment of transit transport contribution to economy are macroeconomic modelling, the approach of broader economic consequences of transport and existing international transit assessment models.

There are two ways to study impact of international transit services on the GDP. First, the contribution of transit investment projects and/or transit infrastructure to economic development can be studied. In this case the extensive literature on links between transport improvements and economy can be used. The second option is to investigate the direct contribution of international transit revenues to GDP assessing relative volume of international transit transport sector in GDP or assessing the taxes paid by international transit transport sector. Currently Latvian authorities assess the contribution of international transit to GDP using imperfect methodology and obtaining approximate results.

The existing transport and international transit patterns can be applied to Latvian case but currently official statistics on international transit of Latvia is not complete and some international transit components are not identified, such as transit cargo by ferries and airplanes, transit passengers serviced at sea ports. That's why this statistics should be improved and then it can be included in the appropriate international transit services assessment models.

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EMPLOYER BRANDING: OBJECTIVES, CHANNELS AND PERFORMANCE INDICATORS

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Abstract

Employer Branding is the new buzzword for marketers as well as in human resource management. Employer Branding is defined as “targeted, long-term strategy to manage the awareness and perceptions of employees, potential employees, and related stakeholders with regards to a particular firm. The strategy can be tuned to drive recruitment, retention, and productivity management efforts.” [1]

In the paper to be presented, I will analyze how the single objectives for employer branding are translated into marketing activities and marketing channels, how the performance of the activities is measured and what indicators are used and useful to measure the performance of employer branding in the marketing context. Goal is to provide an overview on various current marketing tools presented in research literature e.g. by Prof. Dr. Christoph Beck and connect it to “customer” / “potential employee” analysis that has been undertaken in the by big recruiting agencies such as Kienbaum or career marketplaces such as Experteer.

1. Employer Branding: Acquiring and retaining “Talent”

The organizational importance for “Talent” has been growing significantly in the last decades. “Human resources are strategically the most important company resource, even though it cannot be expressed in numbers from a financial point of view.” [2] However, trends such as the demographic change, the increase of workforce mobility and the diversification of job-descriptions, especially in the first world make it more difficult to find potential employees and to keep talented managers and specialists at any career-level as motivated employees within the organization. Therefore, the competition for finding and recruiting “Talent” has grown: “All developed economies face a strong and increasing demand for skilled labor, fostered by technological change, population aging and a subsequent decline in the future native European workforce.” [3]

In the annual German HR-trend-study conducted by one of the leading HR-Consultancies, Kienbaum, the 198 HR-managers prioritize “staffing key positions” (47% “high priority” rank 1), “talent management” (38% “high priority” rank 2) and “attractiveness as employer” (31% “high priority” rank 4) as three of the four top priorities of 2011. “Staffing key positions” (49% “high challenge” rank 1) and “attractiveness as employer” (44% “high



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challenge” rank 3) are also top-challenges for this year. [4] Not only HR-managers but also HR-Consultants attribute a high importance to employer branding: In the Employer Branding Study for HR-consultancies conducted by the career-service Experteer, the 112 interviewed consultants have judged Employer Branding as being an important topic for their enterprise-clients (34% “very important”, 49% “important”) and also for their own company (also 34% “very important”, 49% “important”). [5]

So finding talent, presenting the organization as attractive employer and managing A-performers are currently important topics throughout the HR-industry. In five years, employer branding will even gain more importance: 77% of the HR-professionals interviewed have indicated that employer branding will be “very important” in 2016. [6]

“The Employer Brand can be understood as a bundle of benefits with specific, at the same time long term differentiating characteristics (following the theory of Keller 2003), in a way that the substance of an organization as employer is central to the presentation. It is meant to significantly enhance the publicity of the organization as employer, to ensure that employees include the employer in their relevant set. Moreover, the perceived advantages (Brand value) should immediately reflect in the preference-decisions of the target audience and at the same time enable a sustainable differentiation to competing offers of competitors.” [7]

A strong Corporate Brand Umbrella, hosting the Employer Brand as well as the Customer Brand is beneficial to the organization. [8] To create a unified as well as truthful brand image, this brand needs to represent the current company culture. “While the customer brand and employer brand compete in two different markets – one for products and services; the other for talent and commitment – they are closely interrelated. The employer brand, in attracting the right employees and maintaining their commitment to high performance, plays a critical role in building and supporting the customer brand. Likewise, the strength of the customer brand plays an important role in attracting the right people to come and work for the company. Once employed, the pride they share in the company’s external reputation helps in maintaining their loyalty and commitment to delivering on the company’s brand promises to its customers.” [9]

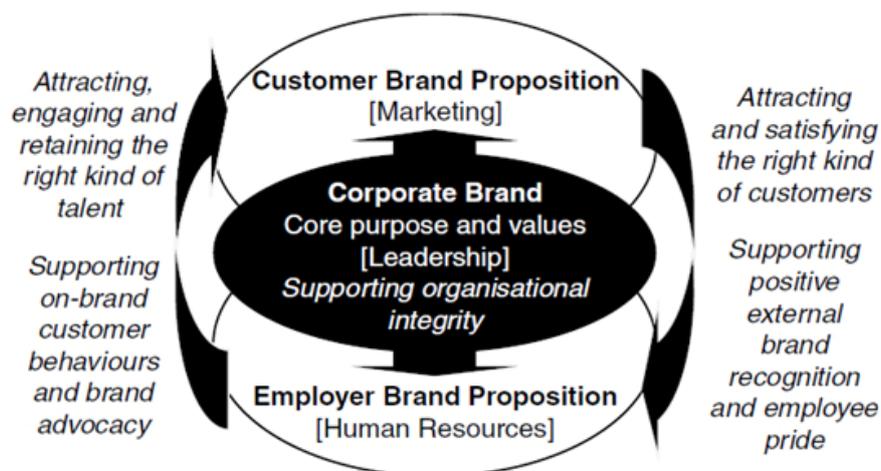


Figure 1. Integrating the Employer Brand with the Corporate Brand [10]



A successful Employer Brand needs to be closely integrated with the Corporate Brand. Core Proposition, Brand Values and Brand Personality need to reflect the organizational culture and ensure that the derived external and internal customer- and employee-propositions are homogenous. Hence, Employer branding is essential for creating a brand equity management system that will maximize long-term brand equity. A strong brand needs a brand-driven organization, which can assimilate the brand into employees. [11]

2. Objectives and Business-Impact of Employer Branding

The Employer Brand is much more than communication of internal marketing messages. A fully integrated brand behavior is evident in personnel management, corporate structures, leadership and communications. Therefore, employer branding should be driven top-down by the CEO and top-management. However, according to the previously mentioned Kienbaum-study, only 5% of the organizations attribute the responsibility for employer branding to top management. In 50% of the companies interviewed, the responsibility for employer branding is mainly in the HR-department, in 26%, HR and marketing share the responsibility and in 5% of the organizations, only the marketing-department is responsible for employer branding. [12]

“While the employee experience is far more complex than any service experience, there is a recognition that organizations would benefit from adopting a similar approach. People management involves a wide range of ritualized processes and HR ‘products’ that can be described as employee touch-points.” [13] Since Employer Branding is closely integrated with the organizational culture, values and beliefs, it entails a full framework for governing the everyday experience of employees through the communication and behavior of their immediate line managers and corporate leaders.

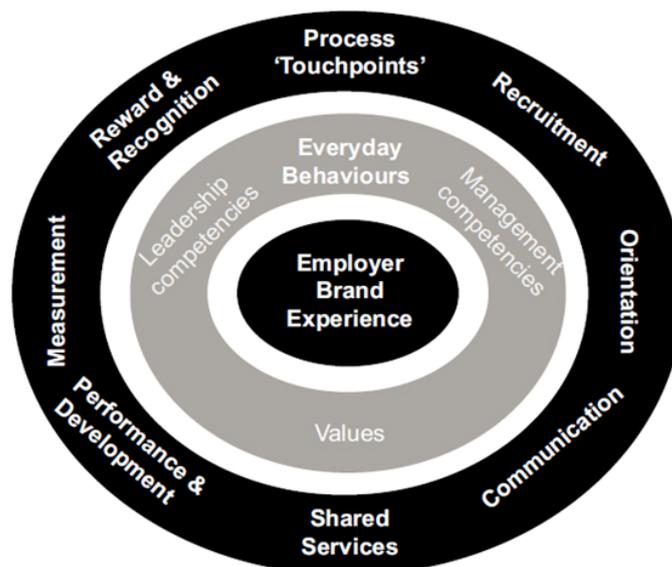


Figure 2. Employer Brand Experience Framework [14]



and inwardly directed external communication represent the concrete employer branding. All of these elements represent brand-oriented behavior.

A consistent management of these factors will result in a better understanding of the Employer Brand, which will again lead to an increase in brand-consistent behavior and communication and will transform employees into brand advocates. In this process, the support of senior management is crucial. “Organizations that intend to fully reap the benefits of becoming brand-driven need to work to create the internal culture that encourages and supports on-brand behaviors. Like any form of organizational change, affecting it begins at the top and filters down from there.” [16]

This brand-consistent behavior can be supported by various activities. These activities can be structured into different phases depending on the fact whether you are a potential employee, a future employee, an existing employee or a past employee.

In the association-phase (“Assoziations-Phase”), the organization needs to generate the first awareness as company and brand. In the orientation-phase (“Orientierungs-Phase”) potential candidates start to associate themselves with the company and in the matching-phase (“Matching-Phase”) information- and communication tools are used to support potential employees to realize whether they are a potential match with the organization and a role within the organization. Tools used in the bonding-phase (“Bindungs-Phase”) are targeted at attracting existing employees and bonding them to the organization they work for. In the ex-post-phase (“Ex-post-Phase”) the network with employees who have left the organization is maintained.

However, being a growing discipline, employer branding is not as well-established as it should be in theory. Currently, the focus of employer is mostly the acquisition of new talent/recruiting. Therefore, also the set of tools mentioned above is mainly focused at the association-phase. Both, HR-consultants and managers in HR-departments consider the own company-page as most important employer branding tool, followed by job-advertisements and networking-activities such as (online) business-networks, social-networks and networking-events such as (recruiting-) tradeshows. Media- and PR-activities are also mentioned, but in both studies they only have secondary importance. [18] [19]

4. Performance Indicators for the Effectiveness of Employer Branding

The majority of organizations have not established performance measurements for their employer branding activities yet. According to the Kienbaum-study, only 39% of the companies inquired have established controlling-measures for their employer branding measures. [20]

Summarizing the descriptions of Employer Branding above, it represents a “targeted, long-term strategy to manage the awareness and perceptions of employees, potential employees, and related stakeholders with regards to a particular firm. The strategy can be tuned to drive recruitment, retention, and productivity management efforts.” [21]

One goal of every employer branding activity is a higher brand awareness and positive brand attitude with future, potential, existing and previous employees as well as other organizational stakeholders.

Performance-focused measures vary by the performance goal that should be achieved. Main goals for employer branding can be recruitment, retention and productivity.

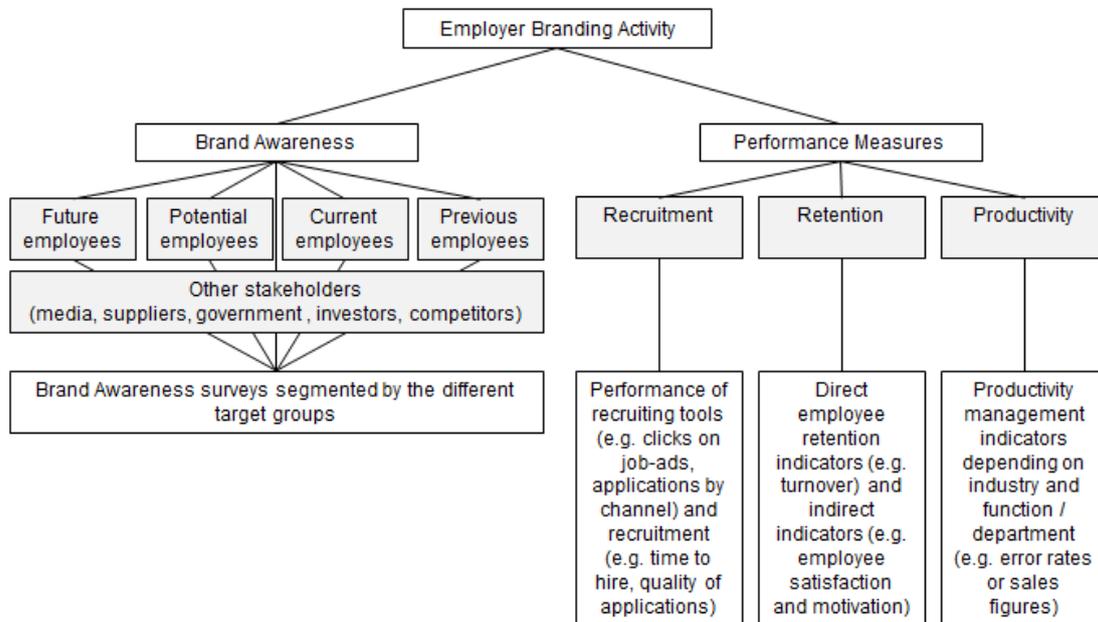


Figure 4. Measurement Tools for Employer Branding Activities

Looking at the goal of recruitment, the performance of the recruiting tools such as job advertisements, networking events, the recruiting-webpage and the quality of the recruitment-activities and the process itself need to be measured. Appropriate measure would be clicks on job applications, page views of the recruiting page, number of candidates visiting the network event, number of applications sent etc. Regarding the quality, appropriate measurements are quality of the applications sent, time to hire and the number of applicants remaining in the organization after the probation period.

Looking at the goal of employee-retention, direct and indirect retention indicators can be looked at. Direct retention-indicators are absenteeism, sick leave, employee-turnover or – fluctuation and churn rates. Indirect indicator besides performance measures, which will be further discussed below is employee-motivation and –satisfaction. A high satisfaction of the workforce has a positive impact on employee involvement [22], the performance of employees [23], the satisfaction of the organizations’ customers [24] and other performance indicators. Moreover, the positive attitude towards the organization will result in higher creativity of employees, more innovation, more participation in workshops and discussions, decline in sick leave times and higher loyalty [25]

To measure employee-satisfaction, commonly employee satisfaction surveys are used. “Based on different methodology, a large number of measuring instruments for job satisfaction were developed. The reasons for this diversity in measuring instruments are subject to the different objectives in drawing up the criteria and the measures of job satisfaction. A further difficulty is that there are different operational definitions, the respective designs of the instruments have been based on.” [26] Depending on the organizations’ previous measures



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used, the existing employee satisfaction survey can be used, augmented or a new survey needs to be introduced.

As mentioned above, there is interdependency between retention and productivity. Motivated employees knowing their tasks and their market are more productive and therefore enjoy their jobs more. “The task is the motivation of employees to produce high-quality output. Motivation is closely linked to Employee satisfaction [...], which is one of the main motive forces of future company output. Moreover, a content employee has no reason to change his/her occupation reducing workforce fluctuation. Consequently, the costs of training new employees are reduced and revenues are maximized by using trained employees [...]” [27]

Looking at the goal of performance management, measures need to be independently defined based on the industry the company is working in. It might even be necessary to set different productivity goals by department and function. Popular measures are number of items produced and error rates for production departments, sales rates and revenue achieved for sales and also marketing departments, delivery times, delivery rates and number of broken items for logistics departments etc. Of course, these factors are not only influenced by employer branding, however employer branding can play an important role in improving those factors.

Of these many performance indicators that could be measured, only few indicators are paid attention to by HR-departments: Those organizations, who do measure the performance of their activities (39%), mainly focus on retention/ fluctuation of employees (61%), number of unsolicited applications (55%), position in employer-rankings (52%) followed by click rates on recruiting-websites (48%). [28] – These disillusioning results show that there still is a long way for employer branding to be established throughout the channels it should be established in and to be measured properly.

5. Conclusion

The holistic concept of employer branding is just about to be established. According to the opinion of HR-experts, HR-managers and HR-consultants, it is and will be an even more important concept to guarantee the needed supply and motivation of the important factor workforce. A whole set of tools for creating and managing a perception of a potential or existing employer is already established, however, only few tools are used systematically by HR-departments and also the measuring of those employer branding activities is not properly managed yet.

To successfully acquire and manage future, potential, existing and previous employees, organizations will have to go a long way in establishing a brand strategy, management- and marketing-tools in line with the organizational culture and measuring-tools to properly analyze the efficiency of the derived employer branding activities.

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GOODWILL AND GAIN FROM BARGAIN PURCHASE – THEORETICAL ANALYSIS OF ACCOUNTING POLICY

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Keywords: goodwill, bargain purchase, acquisitions accounting, accounting policy

Abstracts

In the accounting theory the goodwill is one of the most contradictory evaluated and specific accounting objects. Its value is determined by means of the calculation of residue as a result of an acquisition of an enterprise or in the process of preparing consolidated annual statements. There are many articles in the accounting literature with the discussions on the economic core of goodwill and gain from bargain purchase, and on their accounting methodology.

The paper presents the summary of the research on the economic content of goodwill and gain from bargain purchase, and the comparative analysis of their accounting policy. The paper deals with the internationally recognised problem that several accepted methods of accounting for goodwill arising from the acquisition of an enterprise coexist, as a result of which the accountancy data of different enterprises and also those of countries are incomparable.

The aim of the research is to study and analyse the methods and related problems of accounting for goodwill both on an international scale and in the accountancy of the Republic of Latvia.

The research methodology is based on the comparative analysis of the requirements provided by the documents regulating accounting in Latvia, the International Accounting Standards and the documents regulating accounting in Great Britain and USA. The paper covers also the analysis of authors' conclusions, publications in the periodicals and other bibliographic sources.

Introduction

The accounting requirements for goodwill are the subject of debate. There are many articles in the accounting literature with the discussions on the economic core of goodwill and on such a specific type of goodwill as the gain from bargain purchase or the negative goodwill and on the accounting methodology of these objects.

The aim of the research is to study and analyse the methods and related problems of accounting for goodwill both on an international scale and in the accountancy of the Republic of Latvia. The main tasks of the research are to:

- analyse the core of goodwill;
- assess the accounting policy for goodwill adopted internationally and in Latvia;
- develop suggestions for the development of the accounting policy for goodwill in Latvia.



The first part of the paper provides the summary of research on the economic core of goodwill and negative goodwill, calculated as a result of an acquisition of an enterprise. The second part of the paper deals with the comparative analysis of the accounting policy for goodwill.

The limitation of the research: the article does not examine those methods of determining goodwill that are used in the preparation of consolidated annual statements, because this issue is rather broad, it involves highly specific consolidation procedures and is dealt with by separate documents regulating accountancy. Besides, when performing the comparative analysis of the recognition of goodwill and the accounting provisions on the international scale, there have been used International Accounting Standards, and the documents regulating accounting in the United Kingdom and USA.

The study exploits generally accepted quantitative and qualitative research methods of economics, including classification, comparative analysis and synthesis.

1. The Concept of Goodwill and Its Core

Positive Goodwill

Goodwill is one of the most contentious intangible assets, which are sometimes referred to as the good reputation of an enterprise and strong customer relationships, its prestige or eminence. A comparative study of literature on the subject of economics finds that the most precise explanation of goodwill is provided in the International Financial Reporting Standard No.3 “Business Combinations” – goodwill is the excess of the consideration transferred over the net fair value of the identifiable assets acquired and liabilities assumed. [5]

There are various explanations of the core of goodwill. The Swiss academic B. Raffournier believes that goodwill characterizes the current value of expected profit and also represents various assets, which cannot be materialized in the balance sheet in money terms. [16] The USA academics M. F. van Breda and E. S. Hendriksen believe that it is the positive difference between the cost of acquisition of an enterprise and the fair value of its net assets. [17] According to French academics C. Pierrat and B. Martory, the goodwill indicates the part of the company’s value which cannot be linked individually to the identifiable elements, but it does mean that it corresponds exactly to the value of the unidentifiable elements.[15] The international standards characterize the economic core of goodwill as an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised. [5]

As a result of research, the author concludes that these economic explanations of goodwill fit with its economic core rather well, because it represents both the prospect of receiving economic benefits in the future and the various elements that cannot be materialized in money terms, and the value of goodwill is calculated by using an algorithm, which finds it as a residue when the fair value of the identifiable net assets has been subtracted from the acquisition cost.

The economic literature provides some explanations on the components of goodwill.

The USA academics M. F. Johnson and K. R. Petrone identified the following six probable components of goodwill:

1. Excess of the fair values over the book values of the acquiree’s recognised assets;
2. Fair values of other net assets not recognised by the acquiree;



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3. Fair value of the “going concern” element of the acquiree’s existing business;
4. Fair value from combining the acquirer’s and acquiree’s businesses and net assets;
5. Overvaluation of the consideration paid by the acquirer;
6. Overpayment (or underpayment) by the acquirer. [11]

In conformity with the Basis for Conclusions to IFRS 3, there are four probable components of goodwill:

1. Fair value of the “going concern” element of the acquiree;
2. Fair value of the expected synergies and other benefits from combining the acquiree’s net assets with those of the acquirer;
3. Errors in measuring and recognising the fair value of either the cost of the business combination or the acquiree’s identifiable assets, liabilities or contingent liabilities, or a requirement in an accounting standard to measure those identifiable items at an amount that is not fair value;
4. Overpayments by the acquirer. [5]

In relation to the first probable component of goodwill stating that goodwill is the excess of the fair values over the book values of the acquiree’s recognised assets, it should be admitted that such a component of goodwill may emerge only in the case if an enterprise–acquirer shall initially evaluate the acquired assets and disclose them as a part of its assets according to their carrying amount. However, this evaluation policy contradicts the provision of IFRS 3 that the enterprise–acquirer shall do its best to recognise the identifiable net assets acquired at their fair values rather than their carrying amounts. Therefore IFRS 3 does not identify such a probable component of goodwill at all.

As the second probable component of goodwill is identified the aspect that goodwill comprises the fair values of other net assets not recognised by the acquiree. It is most likely that such other assets are non-physical assets that do not meet the identifiability criteria for intangible assets. However, such a component of goodwill may be reduced, if the enterprise–acquirer observes the provision of IFRS 3 that the acquirer shall do its best to recognise all acquired intangible assets. Thus such a component of goodwill is not identified in the international standard.

The next probable components of goodwill are presented in both bibliographic sources. The third probable component of goodwill is that goodwill represents the fair value of the “going concern” element of the acquiree. In its turn, as the fourth probable component of goodwill is indicated the aspect that goodwill represents the fair value of the expected synergies and other benefits from combining the acquiree’s net assets with those of the acquirer. IFRS 3 provides more detailed explanation of these components. The going concern element represents the ability of the acquiree to earn a higher rate of return on an assembled collection of net assets than would be expected from those net assets operating separately. That value stems from the synergies of the net assets of the acquiree, as well as from other benefits such as factors related to market imperfections, including the ability to earn monopoly profits and barriers to market entry. In its turn, the fair value of the expected synergies and other benefits from combining the acquiree’s net assets with those of the acquirer are unique to each business combination, and different combinations produce different synergies and, hence, different values.



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The author draws a conclusion that the third and fourth components are similar according to their content. They both envisage that goodwill represents both the ability of an enterprise–acquirer to gain higher profit that stems from the mutual synergy of combined net assets and other market factors (probable situation of monopoly in the market) and the fact that it represents the fair value of expected synergy and other benefits that stem from combining the business activities and net assets. The USA academics M. R. Johnson and K. R. Petrone identified these components as “going-concern goodwill” and “combination goodwill”, and these specialists recognise that both components describe the economic core of goodwill. [11] IFRS 3 also observed that the third and fourth components conceptually are a part of goodwill, i.e., they describe the economic core of goodwill. Having compared the views, presented by the USA academics M. R. Johnson and K. R. Petrone, and the provisions of IFRS 3 on the economic core of goodwill with the explanations on this value, given by other accounting specialists (Raffournier [16]; M. F. van Breda, E. S. Hendriksen [17]; C. Pierrat, B. Martory [15]), the author draws a conclusion that the economic core of goodwill partially is described by Swiss academic B. Raffournier, who believes that goodwill characterizes the current value of expected profit.

As the fifth probable component of goodwill is indicated the aspect that goodwill represents the overvaluation of the consideration paid by the acquirer. The fifth probable component is more specifically characterized in IFRS 3, i.e., goodwill represents errors in measuring and recognising the fair value of either the cost of the business combination or the acquiree’s identifiable assets, liabilities or contingent liabilities. [5] Thus this probable component could then relate to all errors in measuring the fair values in the business combination, i.e., it is related to the wrong consideration of a value and to the wrong consideration of the fair value of acquired net assets.

In relation to the content, the sixth probable component of goodwill is similar - goodwill represents the overpayment (or underpayment) by the acquirer. Such probable component of goodwill may occur, if the price is driven up in the course of bidding. Conversely, goodwill could be understated if the acquirer’s net assets were obtained through a distress or fire sale; in this case the negative goodwill is formed.

It is recognised by the USA academics M. R. Johnson and K. R. Petrone, and also provided by IFRS 3 that the fifth and sixth components are not the parts of goodwill, but such overpayment is rather related to the enterprise–acquirer’s measurement errors. Besides, it should be taken into account that IFRS 3 provides that the acquirer shall do its best to measure the consideration accurately, and thus eliminating or reducing the fifth and sixth components.

Having performed research on the probable components of goodwill, the author draws a conclusion that the third and fourth components are considered to be the economic core of goodwill. Therefore, taking into account that goodwill is recognised as the enterprise–acquirer’s asset, it is important to evaluate the conformity of its economic core to the criteria for the recognition of assets.

An asset is defined in the Conceptual Framework for Financial Reporting as:

1. A resource controlled by the entity;
2. A result of past events; and
3. From which future economic benefits are expected to flow to the entity. [8]



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Having considered the conformity of the core of goodwill to the first criterion for the recognition of assets, it should be pointed out that it is difficult for the enterprises to prove the existence of control over this unique asset that is formed by means of calculation as a residue. As it is established above, the core of goodwill represents the ability of an enterprise–acquirer to gain higher profit from the mutual synergy of the combined set assets and from other factors, obtained as a result of business combination. Therefore it could be considered that the management of the enterprise–acquirer controls this asset, because it manages, coordinates and controls all the business activities, thus creating the positive results of business – the profit. It is provided by IFRS 3 that the control of core goodwill is provided by means of the acquirer’s power to direct the policies and management of the acquiree.

The goodwill is in compliance with the second criterion for the recognition of assets, because the existence of the business combination is seen as a past event. The goodwill is in conformity also with the third criterion for the recognition of assets, as this is evidenced by the fact that the acquirer has been prepared to pay extra consideration over and above as amount equal to the fair value of the acquiree’s identifiable net assets. Therefore it is possible to draw a conclusion that the core of goodwill meets the definition of an asset.

Gain from Bargain Purchase or Negative Goodwill

Goodwill may be also negative, which happens, if the consideration transferred is less than the net fair value of the identifiable assets acquired and liabilities assumed. Internationally it is referred to as “a gain on a bargain purchase” (Pahler [14]; IFRS 3 [5]) or as “negative goodwill” (Melville [12]; Comiskey, Clarke, Mulford [10]; Morris [13]; and other specialists), or sometimes also as “badwill”.

In the studied accounting literature there are the following explanations of the core of negative goodwill.

The USA academics M. F. van Breda and E. S. Hendriksen note that negative goodwill is essentially a mirror image of goodwill. [17] Academics from the UK Chopping D. and Skerratt L. believe that negative goodwill is characteristic to a bargain purchase made possible by an “obligatory” sale, special bargaining skills or management mistakes resulting in unsuccessful performance of an enterprise. [9] IFRS 3 also, when characterizing such excess, provides terms “bargain purchase” and “a gain on a bargain purchase”; thus there is also defined the economic core of this negative value – the result of a bargain purchase.

Besides, a view has been expressed in the international standard, that the existence of a bargain purchase is considered (by the preparers of the standard) as an anomalous transaction as parties to the business combination do not knowingly sell assets at amounts lower than their fair value. [5]

However, because the acquirer has excellent negotiation skills, or because the acquiree has made a sale for other than economic reasons or is forced to sell owing to specific circumstances such as cash flow problems, such situations do arise.

Having analyzed the view of the USA academics on the core of negative goodwill (i.e., the negative goodwill is essentially the mirror image of goodwill), it is possible to draw a conclusion that the above mentioned specialists describe this negative difference as the enterprise–acquirer’s expected amount of losses due to the business combination and the assembled collection of the mutual synergy of net assets.



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Melville A. believes that this situation (negative difference – auth.) could arise for two main reasons:

1. Errors might have been made when determining the cost of the business combination or the fair values of the identifiable assets and liabilities acquired;
2. The acquirer may have made a “bargain purchase”. [12]

It should be noted that the first reason for the arise of such negative value as identified by Melville A.– determination errors is eliminated, if an enterprise–acquirer observes the provisions of IFRS 3. The international standard provides that before recognising a gain on a bargain purchase, the acquirer shall reassess whether:

1. It has correctly identified all the assets acquired and liabilities assumed;
2. It has correctly measured at fair value all the assets acquired and liabilities assumed;
3. It has correctly measured the consideration transferred. [5]

Thus, in the most of the above cited sources a view prevails that the economic core of negative goodwill is the aspect that it describes the gains from the bargain purchase.

Academic Pahler A. notes that the presence of a bargain purchase element clearly suggests that the assets are worth more individually than as a part of a going business. If this was true, the previous owners of the acquired business would have been better off to liquidate the company by selling its individual assets than by selling the business as a whole. Because they did not do this, the initially determined current values must have been overstated to the extent of the bargain purchase elements. [14]

Several specialists recognise that conceptually, negative goodwill does not make sense, because in efficient markets there are few bargains (Morris [13]) or over the years, the recurring theme surrounding discussions of negative goodwill is that a bargain purchase is not plausible in efficient markets (Comiskey, Clarke, Mulford, [10]).

Having performed analysis of the provided explanations of negative goodwill, the author draws a conclusion that the economic core of negative goodwill depends on each specific transaction. Thus, negative goodwill may arise as a result of a bargain purchase or when the enterprise–acquirer predicts a negative performance result after the acquisition.

2. The Accounting Policy for Goodwill

Positive Goodwill

The goodwill that has appeared as a result of an acquisition of an enterprise must be disclosed in the documents of the acquiring enterprise. Hence, a question arises – how should this amount be recorded in the accountancy and disclosed in the financial statements?

Three approaches exist to disclosing goodwill in the documents of the acquiring enterprise:

1. Goodwill is treated “a residue” of the accountancy system, which should be compensated as soon as possible, i.e., it should be immediately written off to the expenses part of the income statement or, alternatively, equity capital should be decreased by a corresponding amount;



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2. Goodwill is treated as an element acquired in an economic transaction, and thus its amount is capitalised as an asset with subsequent amortisation during its useful life, not exceeding a certain period from the moment of acquisition;
3. As above, goodwill is capitalised as an asset, but is not a subject to amortisation because it is recognised as an asset for an indefinite useful life. At the end of each accounting period, the annual impairment test is carried out for such goodwill, as a result of which, if the impairment is found, it is written off to the income statement.

Regardless of the fact whether in practice the method of capitalisation or of writing off is used, the aggregate influence on equity capital of an enterprise will be the same, the only difference being in the time period in which that influence is felt. The method of writing off will immediately reduce equity capital, while the application of the capitalisation method will result in a gradual reduction over a certain period. Meanwhile, the application of the third method providing for carrying out the annual impairment test for goodwill will have a fluctuating effect on equity capital, since the reductions of goodwill may occur irregularly and in varying amounts.

When the comparative analysis of the provisions of documents regulating accounting in the USA, United Kingdom and Latvia and the International Accounting Standards was performed, it was found out that there are differences in relation to the accounting approach to goodwill (See Table 1).

Table 1

The Comparative Analysis of the Accounting Approaches to Goodwill provided on the International Scale and in Latvia

General accounting approaches to goodwill	Regulatory accounting approaches to goodwill			
	USA	UK	IAS	Latvia
1. Goodwill is immediately written off to the income statement or directly to the decrease of the equity capital				
2. Goodwill is capitalised as an asset and recognised as the subject to amortisation		X		X
3. Goodwill is capitalised and recognised as not to be the subject to amortisation (annual impairment test)	X	X	X	X

As we can see in Table 1, at present, the first possible accounting approach to goodwill – an immediate writing off – is not envisaged in the countries under research and in the International Accounting Standards.

However, it should be also pointed out that in the United Kingdom before 1998, under SSAP 22, goodwill was either written off against reserves (the recommended treatment) or it was capitalised and amortised (an alternative approach). At present, in the United Kingdom, in conformity with the provisions of FRS 10 “Goodwill and Intangible Assets”, it is permitted to apply both the second and the third accounting approach of this positive difference. [3] If it is



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chosen to recognise goodwill as an asset that is the subject to amortisation, then goodwill is amortised under a rebuttable presumption that it has a useful economic life of 20 years or less. This presumption may be overcome; however, if it is estimated that the useful life is more than 20 years, or even indefinite, and the goodwill is capable of continued measurement in the future such that an annual impairment review can be performed. If goodwill is not amortised, or is amortised over a period of more than 20 years, then an impairment review must be performed each year. In addition, an indication of impairment requires an impairment review without regard to the amortisation period. Where goodwill is amortised over 20 years or less, impairment reviews must be performed only at the end of the first full year after initial recognition and at other times, if circumstances indicate that its carrying value may not be fully recoverable.

After examining the provisions of the normative documentation of Latvia, regulating accountancy, that are related to the treatment of goodwill obtained in acquisitions, it was established that, like in the United Kingdom, in Latvia there are also provided both approaches of the capitalisation of goodwill, i.e., it is recognized as an asset to be amortised or vice versa – as an asset not to be amortised. In conformity with the provisions of “Annual Accounts Law” of the Republic of Latvia, if it is impossible to determine the useful period for this specific asset, it shall be valued according to the acquisition costs from which there are deducted the accumulated losses from the reduction in value. [1] Whereas, if it is possible to determine the useful period for the goodwill, it shall be amortised, i.e., it shall be systematically written off over the time of useful life. It should be pointed out that there are no particular time-limits of useful period for goodwill provided by the legislation of Latvia.

Since 1995, the rules of the Latvian tax accountancy contain a regulation stipulating that goodwill has no impact on the calculation of an enterprise’s taxable income, i.e., the amount subject to the enterprise income tax is increased by the value of write-off.

As we can see in the table of comparative analysis, at present, there is one accounting approach to goodwill provided in the USA and in the International Accounting Standards, i.e., it is recognised as an asset not to be amortised for which the annual impairment test is carried out. It should be noted that this method is to be applied in the accountancy of the USA enterprises starting from 2002, when SFAS 142 “Goodwill and other Intangible Assets” came into effect. Before that date the USA rules required using the capitalisation approach with a subsequent amortisation of goodwill in a period not exceeding 40 years from the moment of capitalisation.

It should be pointed out that there were amendments made in the International Accounting Standards regarding the goodwill accounting methods. Before IFRS 3 “Business Combinations” came into effect (March 31, 2004), the IAS 22 “Business Combinations” provided only for the capitalisation of goodwill with its subsequent amortisation.

The research shows that in Latvian accountancy there exists a problem, which is characteristic to accounting for goodwill in the United Kingdom – several methods of treating the goodwill of an acquired enterprise have been laid out, and, as a result, the accountancy data in this respect cannot be compared.

The author believes that goodwill is a non-amortisable asset and it should not be the subject to a regular calculation of amortisation costs. This can be explained by the fact that it is unfeasible to determine its precise period of existence. It is next to impossible for the management of an enterprise to define how long an environment beneficial to the business



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would exist: demand, competition, monopoly advantages and other factors all have an influence on a company's market reputation. Thus, for goodwill it is reasonable to use the accountancy method which treats it as an asset with an indefinite useful life. Hence, as the capitalised value has no limited useful life, it should not be the subject to the calculation of amortisation. Instead, goodwill should be tested for a decrease before each annual report, and any reduction should immediately be written off to the expenses part of the income statement.

Gain from Bargain Purchase or Negative Goodwill

Regarding the treatment of gain from bargain purchase or negative goodwill, there are three general approaches to accounting for its value:

1. The fair value of the acquired non-monetary assets is decreased by the calculated amount of the negative difference; in case it is not possible to compensate fully for this difference by decreasing the value of the acquired non-monetary assets, the remaining difference is treated as a deferred income. Or it is immediately recognised as a deferred income. Such deferred income must be regularly included in the income statement in the period in which the negative goodwill is expected to have an effect;
2. Before recognising the negative difference, the acquire shall reassess the 'fair value of assets acquired and liabilities assumed, as well as reassesses the consideration transferred. The value of negative goodwill is recalculated for the differences (if there are such) found during the control. If the negative goodwill still exists after these actions, it shall be recognised immediately as gain in the income statement;
3. Like in the second accounting approach, the reassess of assets acquired, liabilities assumed and consideration transferred is performed. If the negative goodwill still exists after the reassess, it shall be capitalised in the balance sheet below the goodwill caption and gradually written off to the income statement.

While performing the comparative analysis of the documentation regulating accountancy in the USA, the United Kingdom and Latvia, and the provisions of the International Accounting Standards, it was established that there is no uniform accounting approach in relation to the accounting of negative goodwill (see Table 2).

Table 2

The Comparative Analysis of the Accounting Approaches to Negative Goodwill provided on the International Scale and in Latvia

General accounting approaches to negative goodwill	Regulatory accounting approaches to negative goodwill			
	USA	UK	IAS	Latvia
1. negative goodwill is capitalised in the balance sheet as the deferred income				
2. negative goodwill is recognised as gain in the income statement	X		X	X*
3. negative goodwill is capitalised below the goodwill caption		X		

* only in the consolidated income statement



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As we can see in Table 2, at present, the first possible accounting approach to the negative goodwill – its recognition in the balance sheet as the deferred income, is not provided in the countries under research and by the International Accounting Standards. Although it should be pointed out that this method for the accounting of negative goodwill was permitted both in the USA (until January 1, 2002) and by the IAS (until March 31, 2004).

Thus, it was provided in the USA that the negative goodwill was disclosed as a deferred credit (deferred income – auth.) after reducing proportionately to zero the values of assets that would have otherwise been assigned to non-current assets (except long-term investments in marketable securities). Since 1999 it was also provided by the IAS that the negative goodwill shall be recognised as deferred income, providing that the negative difference must be systematically recognised in the income part of the income statement in the following way:

1. When negative goodwill or a part of it is associated with predictable losses or expenses implicit in the plans of the acquiring enterprise, and their value can be estimated with a reasonable precision, even though on the date of acquisition they do not appear among liabilities, negative goodwill should be recognised as an income of the period when the losses or the expenses are predicted;
2. When negative goodwill or a part of it is associated with expected future losses or expenses, its value, not exceeding the fair value of the acquired identifiable non-monetary assets, must be recognised as an income on a systematic basis proportional to the useful lives of acquired identifiable amortisable/depreciable assets, and the rest should be treated as an income immediately.

At present, in conformity with the provisions of the USA SFAS 142 “Goodwill and Other Intangible Assets”, negative goodwill is disclosed in the income statement as extraordinary gain to the extent that it exceeds allocations to certain assets. [7] As we can see in Table 2, the International Accounting Standards (IFRS 3 “Business Combinations”) also provide for the immediate recognition of negative difference as gain in the income statement. [5]

Different accounting approach to the intangible goodwill has been accepted in the United Kingdom. FRS 10 “Goodwill and Intangible Assets” provides that, if negative goodwill is created in an acquisition, the fair values of the assets must be tested for impairment and the liabilities examined for understatement or omission. Negative goodwill is not allocated proportionately to reduce the values assigned to non-current assets. This negative difference is separately classified just below the goodwill caption in the balance sheet, and the subtotal shows the positive and negative goodwill. Negative goodwill, up to the fair values of the acquired non-monetary assets, is recognised in the income statement in the periods when the non-monetary assets are recovered, whether through depreciation or sale. Any remaining negative goodwill is disclosed in the income statement over the future periods of expected benefit. [3]

While examining the provisions of the normative documentation regulating accountancy in Latvia, which are related to the treatment of negative goodwill obtained in acquisitions, it was established that there were no indications in any of the documents how this negative difference shall be recognised in the acquirer’s accountancy. The legislation of Latvia regulates only the procedure of the recognition of negative goodwill, when preparing the consolidated annual accounts. “Law on Consolidated Annual Accounts” of the Republic of Latvia provides that, when preparing such an account, the negative goodwill, which has emerged after the specific consolidation procedure, is immediately included into the consolidated profit or loss statement.



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[2] However, as it was mentioned in the introduction of this article, the author does not study the specificity of the recognition of goodwill in the consolidated annual accounts.

As a result of research performed, the author finds that, at present, in the countries under research (except for the United Kingdom) and in the International Accounting Standards the negative goodwill is defined as gain from bargain purchase, which, after the reassess of net assets acquired and consideration transferred, shall be immediately recognised in the income statement.

Conclusions

There are different explanations of the economic core of goodwill and negative goodwill in the accounting literature. At present there prevails a view that the core of goodwill describes the ability of an enterprise–acquirer to gain higher profit that stems from the mutual synergy of combined net assets and other market factors, as well as it describes the fair value of the expected synergy and other benefits as a result of business and the combination of net assets. Besides, only if the core of goodwill represents the above mentioned, it may be recognised as an asset in the balance sheet of the enterprise–acquirer. Whereas the prevailing view concerning the core of negative goodwill is that it describes the result of a bargain purchase.

The author believes that the explanations of goodwill and negative goodwill alike disregard one important peculiarity – both of them exist for as long as the enterprise is operating, and if since establishment the entity has never been sold, its steadily formed goodwill or negative goodwill is not shown in the accountancy registers. Hence, goodwill exists within every enterprise and whether it is positive or negative depends on its operational success; and as a result of an acquisition of an enterprise, goodwill is calculated for the acquirer's balance sheet but it does not arise anew.

When identifying the core of goodwill, the problem is that it is a unique item, emerging as a residue. Thus it is possible to state that the core of this difference depends on the specificity of the acquisition of a particular enterprise. Therefore it is very unlikely that there exists the only, uniform explanation of the core of goodwill that would correspond to the peculiarities of the acquisition of any enterprise.

The performed research shows that there are different accounting methods of goodwill, calculated as a result of the purchase of an enterprise, simultaneously accepted on the international scale and in Latvia. Thus in the United Kingdom and Latvia there are two accounting methods of positive goodwill permitted at the same time – to recognise this specific asset in the balance sheet as an object to amortisation or vice versa – as an object not to be amortised. Whereas in the USA and in the International Accounting Standards it has been provided that this item shall be recognised in the balance sheet only as an asset not to be amortised. In relation to the gain from bargain purchase or negative goodwill accepted accounting policy it should be pointed out that, according to the sources studied, there is only in the United Kingdom provided a different accounting method for this item, i.e., it shall be capitalised below the goodwill caption and gradually written-off in the income statement. The rest of the sources (it concerns the International Accounting Standards, USA and relatively also Latvia) provide for the uniform accounting policy of this negative difference, i.e., it shall be recognised as gain in the income statement.



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The author suggests making amendments to the documentation regulating accounting in Latvia that would provide for the recognition of goodwill, calculated as a result of purchase of an enterprise, only as an asset with indefinite useful life. As well as it is necessary to include the accounting policy of negative goodwill in the legislation of Latvia that, according to the performed research, at present is prevailing on the international scale, i.e., it shall be immediately recognised as gain in the profit or loss statement.

The author believes – there is no surprise that there are different accounting methods for this value on the international scale, because the economic core of an intangible value differs considerably depending on a particular case and period of time. The author, in contrast, believes that it is necessary to have a single international policy of recognising and treating goodwill. This would enable financial analysts, managers and other users of financial statements to compare the information disclosed in the documents of various enterprises, even across borders, and thus make adequate decisions. The only way how to achieve the uniform accounting policy for goodwill is the accept of the uniform accounting policy of this specific value by the organisations passing the International Accounting Standards and by the organisations passing the local standards.

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OPPORTUNITIES FOR HYDROGEN MARKETING – PUBLIC OPINION ANALYSIS

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Abstract

Increase of oil prices as well as problems in supply of fossil energy resources have led to development and use of renewable energy resources, including hydrogen energy. Popularity of renewable energy is growing in with each passing year. There are multitudinous successfully projects and more often companies and different societies start to implement renewable energy projects to manage efficient financial resource spending as well as reduce the impact of energy suppliers. Hundreds of good practice are examined and developed world wide, including operation of university campus, public transport, operation of villages, etc. Paper examines the readiness of acceptance of renewable energy resources and in this case – hydrogen for energy supply of Academic Centre. In the survey were questions on respondent's, attitudes, behaviour, some environmental knowledge as well as information on socio-economic characteristics of respondents, including, questions about the project acceptance, scientific value and safety issues. The main conclusion is that the main results shows acceptance for the project. Methods used for analysis: scientific publications research, evaluation of practical knowledge transfer and marketing tools application evaluations using

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questionnaire. For data processing and analysis indicators of central tendency or location and variability, crosstabulations were used.

Introduction

Due to fluctuating oil prices, depletion of world's fossil resources, global warming and local pollution, geopolitical tensions and growth in energy demand, the renewable energy technologies and effective use of fossil fuels have become more important than at any time in history [1]. The faculties of natural sciences imply implementing innovative building technologies, such as a double facade made of green plants reducing temperature fluctuations in direct sunlight as well as wind generators of vertical flow on the roof. Integrated energy system depending on heat and power supply can be used to access the market potential of technologies [2]. Combined hydrogen heat and power system would be consistent accession for the already proposed construction goals. Hydrogen can be generated from a variety of energy resources, such as imported resources (gasoline, natural gas), and local resources (methanol, ethanol, biogas, water, geothermal, Sun and wind). The supply is endless and, depending on the production process, will not rob the earth of any more non-renewable sources [3]. Hydrogen can be used in stationary and mobile applications without damaging emissions especially using fuel cells [4]. Fuel cells is an enabling technology, and have high efficiencies and potentially sustainability with lower negative externalities than current energy systems, which has made them attractive future option in micro, stationary and automotive applications [5]. Within the context of hydrogen economy, the lack of infrastructure remains unsolved for large scale [6]. Hydrogen as a sustainable alternative energy solution for mobile and stationary applications has generated widespread interest on hydrogen energy [7]. Paper examines the readiness of acceptance of renewable energy resources and in this case – hydrogen for energy supply of Academic Centre. In the survey were questions on respondent's, attitudes, behaviour, some environmental knowledge as well as information on socio-economic characteristics of respondents, including, questions about the project acceptance, scientific value and safety issues. The main conclusion is that the main results shows acceptance for the project. Methods used for analysis: scientific publications research, evaluation of practical knowledge transfer and marketing tools application evaluations using questionnaire. For data processing and analysis indicators of central tendency or location and variability, crosstabulations were used.

Ideas on the Future of the University of Latvia Campus

By 2023, the University of Latvia is going to create a modern learning infrastructure in Riga district Tornakalns, with five study blocks and all the necessary facilities for active student life. The Campus total capacity will be about 20 000 people. Currently the connection to central city communications is planned for the new Campus, therefore hydrogen resource available on-site will therefore be natural gas. From renewables the Sun, Wind and water will be available and suggestions will be elaborated to organise in the Campus local collection of biological wastes. The fuel conversion system will be used to convert the locally available feedstock to a usable biogas. Anaerobic digestion system will be used to convert the organic feedstock and wastewater that University of Latvia campus will produce. Electricity will be used to power the

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Academic Centre of Natural Sciences (include Biology, Chemistry, Geography and Earth Sciences – research laboratories, lecture-rooms, professor rooms etc., 200 researchers and professors, 2000 students. Feedstock that will continuously run the combined hydrogen and heat power plant will be municipal solid food waste, produced by University of Latvia campus city. According to The Ministry of Environmental Protection and Regional Development prepared State waste management plan for 2006-2012, the amount of municipal solid waste (MSW) generated by one person is 0.53 kg/day (biologically degradable waste). In the campus about 20 000 people will be daily, but factor of 0.2 was used to take into account people that do not eat on the campus territory. A conversion rate for degradable waste to biogas is from 50-70%, but biogas contains approximately 55% methane [8]. Based on experimental data [9], 0.12 tons of methane are produced from 1 ton of MSW. Accordingly, 0.064 kg methane will be produced daily per one person; 1024 kg CH₄/day. Fuel cell power plant DFC 300 [9] requires 1139 kg natural gas/day. Power distribution and electricity will be maintained centralized in the University of Latvia Campus. Currently the connection to central campus electricity communications is planned and it will be elaborated to organise connections to fuel cell system requirements. Leak detection equipment and automated system shutdown will be implemented, as well as catalytic oxidizers and ventilation, preventing hydrogen build up. Sensors for gas detection will be installed near and in the systems. Alarms will be incorporated in case of failure. Emergency switch will be easily accessible in the case of failure. 80 kg of hydrogen is stored in special Dynetek storage tanks with pressure 450 bars, then passed to dispenser when needed. If pressure drops to 300 bars, compressor starts to work again. Unlike conventional fossil fuel combustion plants where fuel quality and prior preparation is of little or no concern, the inputs, quantity and quality to the fuel cell are of great importance. The basic inputs are methane (from natural gas or biogas), water, and air. The outputs are DC electricity, water, and exhaust gases consisting primarily of heated carbon dioxide and water vapour. The power of the chosen device (DFC300) is 300 kW. As the building is only in a project phase, all figures above are based purely on predictions and calculations. However precise the calculations might be, there is still a profound necessity for the system to be highly flexible, and that has also been accounted for in the present section as well as in the technical design section. Luckily it is not that difficult, as the residual electricity can be fed back into the grid earning Ls 0.0115 per kWh [10]. Power system is safe if operated with the proper handling. System will be closed and available for viewing only selected parts together with selected specialists. Design system for Latvia is designed and will be built according to European material Hydrogen standards. Main electricity uses are computers, lighting, air conditioning, laboratory equipment, kitchen appliances of the café. The new faculty building is expected to have about 300 computers, mostly desktops (150 for university staff, 150 for computer classes).

Experience of World University Campus

Existing research provides important insights about determinants of hydrogen support and refuelling facilities. The increase of fossil fuel consumption is frequent problem in the world, for example, the University of Birmingham operates a fleet of 110 vehicles for delivery and other duties. To solve these problem electrical and hydrogen vehicles were introduced in the university campus to decrease fossil fuel consumption [11]. Also a



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commercially available lead-acid battery electric scooter was converted to a hydrogen fuel cell battery hybrid scooter. It was proved that hydrogen fuel cell battery hybrid scooter gave better energy efficiencies and speeds compared to battery and petrol powered scooter alone [12]. Different studies have examined the application of hydrogen to public and private transportation systems, based on customers and potential user opinions. Some studies have focused on measuring levels of hydrogen application acceptance and to identify determinant factors likely to support this green technology. Across these studies, variables related to socio-demographic factors, knowledge and attitudes appear to relate to hydrogen support and acceptance reported by the public [13]. In 2007 a clean energy research facility consisting of a 5kW photovoltaic system and 2.4 kW hydrogen-fuel cell system was built to investigate these energy production technologies at Pamukkale University in Denizli, Turkey [14]. Complete thermo economical analysis of an integrated power plant for co-production of electricity and hydrogen via pyrolysis and gasification processes fed by various coal and mixture of coal and biomass was applied to existing large steam power plant in Italy. The results showed that hydrogen cost, primarily, is affected by the total plant capital costs [15]. Social survey was carried in 2009, California, USA to learn consumer attitude on hydrogen vehicles. Hydrogen vehicles were tested and drivers questioned after test-drive. More than 90% would consider travelling 5-10min to find hydrogen fuelling station, more than 80% left with a positive overall impression of hydrogen [16]. Different analysis shows, that hydrogen refuelling stations and their supporting decentralized refuelling infrastructure diffusion over a long-time period can be estimated thru different scenarios and government incentives can play a significant role in development process [17]. Also educational part is significant element during renewable energy technology implementation. Numerous European educative initiatives targeted at children, students and other citizens to train them with active learning [18]. Unreached energy efficiency is significant problem for all kind of buildings. The study to analyze the energy efficiency of Los Angeles Community College City Campus was done to evaluate sustainability of the campus. It was discovered that campus could reduce its current annual energy consumption by 18.2% by improving energy efficiency. The study also concluded that the campus would need to install a 4601 kW solar PV array to meet remaining total campus energy demand [19]. It is hard to predict technology development. One of methods is five forces of competition, which analyses potential market entrants, buyers – to customers, substitutes, suppliers and competitors [20].

Before technology implementation it is important to make sure that society will accept technology. Gaining technology acceptance is critical in modern organizations [21]. By targeting one of groups it is possible to learn readiness and acceptance of technology. Target group for the survey of authors covers potential consumers including personal, professors, students – academia that will work together in the new campus. It can be assumed that consumer's perception toward government policy is directly influenced from his or her own experience related to the government policy. Also personal experience affects risk perception and benefit perception, which determine whether or not a person will accept product [22]. It is significant to encourage hydrogen development thru the prism of potential consumer. The change of hydrogen power paradigm is required to reach sustainable economic feasibility today, not in 50 years or next century [23]. A significant paradigm shift is now under way as major



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change in the way government policy makers and industry leaders are looking for clean fuels and renewable energy for their own nation-states [24].

The European Commission has adopted two proposals today that will mark a step forward in the development and marketing of clean and safe hydrogen vehicles. The first is the setting up of the Fuel Cells and Hydrogen Joint Technology Initiative, an ambitious industry-led integrated programme of Research, technology development and demonstration activities [25]. Any attempt to understand and plan for a future transition to a hydrogen energy system must rely on some understanding of the processes of technological systems [26]. Social marketers attempt to bridge the education-policy divide by creating incentives, or rewards that encourage and reinforce behaviour change. However, these efforts face the not inconsiderable difficulty of making deferred and uncertain rewards as attractive as immediate pleasures [27]. Philosophy and a business strategy, supported by a technology platform, business rules, processes and social characteristics, engages the customer in a collaborative conversation in order to provide mutually beneficial value in a trusted & transparent business environment [28]. It would be difficult to promote hydrogen, if distributions have had two independent systems, like petrol vs. hydrogen [29]. In authors situation hydrogen system can be integrated in existing system and gradually moved to independency. The lack of hydrogen infrastructure remains unsolved for macro level, but in micro level like University of Latvia campus integrated hydrogen power system can provide infrastructure demanded.

Empirical Research Results

University as Organization should choose economically viable long term energy consumption by promoting sustainable development as well as science development. That is possible, renewable energy technologies will be integrated in the campus energy system. The faculties of natural sciences imply implementing innovative building technologies to provide with electricity Academic Centre of Natural Sciences (include Biology, Chemistry, Geography and Earth Sciences – research laboratories, lecture-rooms, professor rooms etc., 200 researchers and professors, 2000 students. Social-economical survey via questionnaire was performed in February and March, 2012 to explore readiness of the society to use renewable technologies in the University campus. All respondents are related to University of Latvia (students, professors, researchers, and possible future students, etc.). Faculties intended to locate in Academic Centre of Natural Sciences participated in the survey. In the survey were questions on respondent's environmental knowledge, attitudes, behaviour as well as information on socio-economic characteristics of respondents. Including, questions about the project acceptance, scientific value and safety issues. Some descriptive statistics (arithmetic mean, mode, median and indicators of variability) are reflected in table 1.

As the survey results show (table 1), most of the respondents are very positive (with surprisingly high evaluations) for renewable technology implementation in University of Latvia Academic Centre of Natural Sciences (Mean = 8.49, Std. Error of Mean = 0.107, Mo = 10, Me = 9.00). Also appreciated statement: Could hydrogen be used for electricity, heat production, and for energy storage in these renewable energy technologies? (Mean = 7.60, Std. Error of Mean = 0.106, Mo = 10, Me = 8.00) this answer shows good level of knowledge among respondents. Survey participants agreed that access to renewable energy technologies in the



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campus area during studies is an important part of student practical training – one of highest evaluations (Mean = 8.30, Std. Error of Mean = 0.099, Mo = 10, Me = 9.00). Statement about respondent knowledge level on hydrogen usability as energy resource has been evaluated above average (Mean = 6.57, Std. Error of Mean = 0.140, Mo = 10, Me = 7.00). Safety is considered as most concerning issue do to the results for statement: I am positively convinced for hydrogen energy safety. It has been evaluated in average (Mean = 6.44, Std. Error of Mean = 0.120, Mo = 5, Me = 7.00) that means hydrogen safety issues still are topic for discussion in society. By opinion of respondents, government incentives must be attracted for renewable energy technology implementation in University of Latvia Academic Centre of Natural Sciences (Mean = 7.65, Std. Error of Mean = 0.122, Mo = 10, Me = 8.00).

Table 1

Main statistical indicators of responses on the project acceptance, necessity and safety issues in Latvia

	Renewable energy technologies should be implemented in University of Latvia Academic Centre of Natural Sciences	Could hydrogen be used for electricity, heat production, and for energy storage in these renewable energy technologies?	Access to renewable energy technologies in the campus area during studies is an important part of student practical training	I am informed for hydrogen usability as energy resource	I am positively convinced for hydrogen energy safety	Government incentives must be attracted for renewable energy technology implementation in University of Latvia Academic Centre of Natural Sciences
N Valid	364	359	363	364	362	364
Missing	0	5	1	0	2	0
Mean	8.49	7.60	8.30	6.57	6.44	7.65
Std. Error of Mean	0.107	0.106	0.099	0.140	0.120	0.122
Median	9.00	8.00	9.00	7.00	7.00	8.00
Mode	10	10	10	10	5	10
Std. Deviation	2.037	2.013	1.878	2.678	2.291	2.336
Variance	4.151	4.051	3.527	7.171	5.250	5.456
Range	9	9	9	9	9	9
Minimum	1	1	1	1	1	1
Maximum	10	10	10	10	10	10

Evaluation scale 0 – 10, where 0 – do not have information about issue, 1 – fully disagree, 10 – fully agree

Source: Survey performed by authors in February and March 2012, n=364



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It can be concluded that in average academia and students expressed positive attitude towards hydrogen energy and demonstrated good knowledge level about hydrogen technologies and are willing to accept and support technology implementation in University of Latvia Academic Centre of Natural Sciences. For almost all statements most chosen evaluation was the highest – 10, characterised by mode, except for the statement “I am positively convinced for hydrogen energy safety”, where the modal evaluation was 5. For this statement the full range of responses were covered (except 0, it means that all respondents had information on analysed issues and expressed their attitude. Table 2 reflects distribution of the answers for statement: Renewable energy technologies should be implemented in University of Latvia Academic Centre of Natural Sciences.

Table 2

Distribution of answers for statement: *Renewable energy technologies should be implemented in University of Latvia Academic Centre of Natural Sciences* by faculty

Evaluation scores	Faculty represented					Total
	Faculty of Biology	Faculty of Physics and Mathematics	Faculty of Geography and Earth Sciences	Faculty of Chemistry	Riga Technical University	
1	4	0	0	1	0	5
3	1	0	0	1	0	2
5	2	2	4	5	0	13
6	1	3	0	3	0	7
7	8	8	1	6	0	23
8	7	11	12	13	0	43
9	9	7	9	14	0	39
10	46	17	31	33	1	128
Total	78	48	57	76	1	260

Evaluation scale 0 – 10, where 0 – do not have information about issue, 1 – fully disagree, 10 – fully agree

Source: Survey performed by authors in March 2012, n=260

Table 3 reflects distribution of the answers for statement: *Renewable energy technologies should be implemented in University of Latvia Academic Centre of Natural Sciences*. Results shows that gender distribution in answers for this statement are 52.6% female and 47.4% male. Total valid answers were 361. Females most often evaluated the statement higher than males.



Table 3

Gender Distribution of responses on statement *Renewable energy technologies should be implemented in University of Latvia Academic Centre of Natural Sciences* by gender

Evaluation scores	Gender		Total
	Female	Male	
1	5	3	8
3	1	4	5
4	3	2	5
5	10	9	19
6	8	6	14
7	13	19	32
8	25	32	57
y	35	17	52
10	90	79	169
Total	190	171	361

Evaluation scale 0 – 10, where 0 – do not have information about issue, 1 – fully disagree, 10 – fully agree

Source: Survey performed by authors in March 2012, n=361

One of most positive evaluated statements was the importance of student access to technology for educational purposes. Interesting to point out that actual students and future students strongly agree more often than academy and teachers – see Table 4. This could mean that practical training is more important from student point of view, than academia.

Table 4

Distribution of responses on statement: *Access to renewable energy technologies in the campus area during studies is an important part of student practical training* by position

Evaluation scores	Current status						Total
	Student	Academy	Pupil	Teacher	Parent	Other	
1	1	0	0	0	0	1	2
2	1	0	0	0	0	0	1
3	0	0	3	0	0	0	3
4	2	0	4	0	0	0	6
5	6	0	9	0	1	0	16
6	8	0	2	0	1	0	11
7	23	1	6	1	0	1	32
8	33	1	12	4	2	2	54
9	25	2	12	2	3	1	45
10	65	1	26	3	4	0	99
Total	164	5	74	10	11	5	269

Evaluation scale 0 – 10, where 0 – do not have information about issue, 1 – fully disagree, 10 – fully agree

Source: Survey performed by authors in March 2012, n=269



Some descriptive statistics on physical related statements about hydrogen as energy carrier and CO₂ binder are reflected in table 5.

Table 5

Descriptive statistics on statements related to physical knowledge about hydrogen

	Hydrogen as energy carrier can be used to accumulate Solar and wind energy	Hydrogen can be used to bind CO ₂
N Valid	258	259
Missing	12	11
Mean	1.57	1.52
Median	2.00	2.00
Mode	2	2
Std. Deviation	0.639	0.501
Variance	0.409	0.251
Range	7	1
Minimum	1	1
Maximum	8	2

Evaluation scale 0 – 10, where 0 – do not have information about issue, 1 – fully disagree, 10 – fully agree

Source: Survey performed by authors in March 2012, n=259

The statement Hydrogen as energy carrier can be used to accumulate Solar and wind energy have got extremely low evaluation (Mean = 1.57, Std. V = 0.140, Deviation = 0.639, Mo = 2, Me = 2.00). Results prove that most of respondents do not have enough knowledge on hydrogen as energy carrier best practices in the world and physics related knowledge for hydrogen thus previous answers were given without physics effects.

Conclusions

Hydrogen usage in stationary and mobile applications without damaging emissions is highly regarded. Hydrogen technologies have potential to convert fossil fuel systems to renewable systems.

Public acceptance and knowledge expression is significant to implement renewable energy projects.

Main results of survey show that majority of the respondents are very positive for renewable technology implementation idea in the University of Latvia Academic Centre Of Natural Sciences.

Teaching staff and students have expressed good knowledge level about hydrogen technologies and are willing to accept and support technology implementation in the UL Academic Centre of Natural Sciences.



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Nevertheless many respondents are highly concerned about safety issues of the renewable energy technology. This means that safety education must be implemented and discussed more with society.

Students and future students strongly agree that access to renewable energy technologies in the campus area during studies is an important part of student practical training.

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Keywords: education, innovation, human needs, knowledge society, self-actualization

Abstract

Human centred approach in economics means, that should be investigated the main needs of each human being and the ways, how to satisfy these needs using economics as a tool. We can use the well recognized classification of human needs, introduced by Abraham Maslow [1]. This classification includes: Physiological needs, Safety needs, Love and belonging, Esteem, Self-actualization. Economics usually deals with Physiological needs and Safety needs. Development of the Knowledge Society should push more interest to other needs.

Science is the way how to create knowledge using money. Innovation is the way how to receive money using knowledge. People are ready to pay money, if they receive satisfaction of their needs. Self-actualization is a very wide group of human needs, which has not investigated in economics. Creation of the conditions, where people will have possibility to receive and to create new knowledge, could be put in the basis the important kind of innovations. This kind of innovations is direct use of the existing (“produced”) knowledge to involve people in the process of the continuous production of new knowledge [2]. The necessary adaption of the knowledge must be fulfilled for such use. Activities of such kind, mixing entertainment and education, already are going on (for example, the TV programme *Discovery*), but the place of such activities in future economics should be much greater. Education and research should be used for the direct satisfaction of the Self-actualization.



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Introduction

Economics is a tool to supply all necessary for human life. Mostly it means supply with products and services for the basic (physiological) needs (food, clothing, accommodation etc.) and safety. Human centered approach in economics means, that should be investigated all main needs of each human being and the ways, how to satisfy all these needs using economics as a tool. We can use the well recognized classification of human needs, introduced by Abraham Maslow [1]. This classification includes: Physiological needs, Safety needs, Love and belonging, Esteem, Self-actualization. Welfare and good quality of life usually deals mainly with Physiological needs and Safety needs. The links between economics and psychology were established by the works of Nobel Prize winner Daniel Kahneman and his colleagues [2]. Public administration still is not using this well investigated psychological approach in economics [3]. For example, the conceptual political documents of the Parliament of Latvia describes as the main aim (as the quality of the life) welfare, safety and sustainability, where the latest is just keeping welfare and safety [4].

Development of the Knowledge Society should push more interest to all human needs. We shall investigate the challenge to go further with the establishing tasks for economics, keeping in mind human development, all different needs, including belonging, esteem and self-actualization [5]. We shall use the ideas proposed by Ken Wilber [6]. An integral approach to personal and social development can give much better understanding of the changes in the economics of the Knowledge Society.

Discussion

People are ready to pay money, if they receive satisfaction of their needs. They agree to pay not only for food and accommodation. Entertainment is already significant part of economics, first of all cinema, theater, mass media and tourism. Hotels and catering (restaurants, cafes, bars etc.) also are more used for the entertainment than only for food and shelter. Contemporary industry and agriculture of the so called developed states (belonging to the golden billion) allows supply of the society with minimal necessary for Physiological needs and Safety needs using some 5 to 10 percent of the available workforce. How to use the remaining part in the best way depends on political and economical decisions. New approach to the production of services must pay more attention to the basic human needs, first of all to Self-actualization. These problems have been established in clear way in the famous book of Francis Fukuyama [7]. The end of industrial economics and management is not the end of history, as was proposed by Francis Fukuyama. The new ways of the interaction between culture and economics show the direction of the development and further changes in the structure of the society, which prevents the predicted by Francis Fukuyama end of the history [6, 8]. The role of the culture has been mentioned already by Francis Fukuyama [9].

To investigate more Safety needs, Love and belonging, Esteem, Self-actualization we should look through the existing definitions of culture and creative industries. Culture usually is understood as very wide field of creative human activities, but for economical analysis more precise and narrower definition could be more useful. According to the original meaning



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(in Latin) culture is the way how to grow the crops, how to use the land (*coltivare*). Continuing this line the culture could be defined as gathering of the effective models of behavior (action), which can give useful for individuals and/or for the society results. Culture is open, self-consistent system of the models of human behavior, continuously developing. Different technologies and methodologies, fixed in any useful way are the main content of the culture according to this definition. Different activities with the aim to find such technologies and methodologies are not the part of culture. Such activities are creative and include science and art. The important results of creative activities are new, more effective technologies and methodologies, but not only. Often used wide definition of culture includes also all creative activities. Such approach is not effective, because it puts together the result, system of the models of behavior, and the process of the creation of such self-consistent system of the models of behavior. Knowledge and wisdom, created by science and art are results which satisfy Love and belonging, Esteem, Self-actualization.

The same is possible to achieve using different means. The stable, self-consistent social structure can exist with different, partly contradictory systems of the models of behavior. Therefore it is possible (and necessary for the effective investigation) to distinguish different cultures. For example, the Christian culture is different from Muslim culture.

Society with high satisfaction of Love and belonging, Esteem will have high safety. This means, that the best way to enlarge safety is to create better social structure with higher satisfaction of belonging and esteem. Society has created different self regulation mechanisms – traditions, festivals etc., which support morality. Based on the belonging and esteem, the traditional morality supports social structure, social functioning of the society, regulates the behavior and prevents deviations from the accepted as normal, supported by traditions behavior. Law is the necessary minimum of traditions, which has been formalized to guaranty their implementation. Usually law becomes necessary in cases, where exist different contradictory traditions, different rules. The society must accept and fulfill as a law one of the different versions to keep stability.

Social conditions are changing quickly and now social networks in Internet are used more and more to regulate behavior. Informal education, interest education, adult education, different kinds of amateur activity and amateur performance supports social structure. Significant part of the state budget and other sources of financing, including the budgets of the local communities, support different activities under the name of culture [10, 11, 12]. The total amount of financing and number of libraries is decreasing [10, 11], but the interest, for example, attendance of theatres per 1,000 population is increasing [12]. Only part of this financing helps to support and to develop traditions, which are the basis of the morality. Liberal approach allows all kinds of traditions to exist simultaneously, parallel. The so called multi cultural society has been accepted as possible model of behavior, but there is no real support for the creative activities [10]. Public management do not use associations of artists, painters, writers and other so called creative professions as a tool for the changing society, introducing new models of behavior according to the changes in economics. The human needs in the Knowledge Society are not supported by the appropriate political decisions [10]. The increasing amount of the free time of individuals must be properly used to satisfy the human needs [12]. The liberal approach to the public management is not effective [10].



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The possible changes of the social structure, arising due to the increasing productivity of labor has been investigated by Alvin Toffler [13]. He has made conclusion about significant changes of the attitude to labor and structure of management and economics. The missing part is the creation of new structure of aims of economic activities. The research, production of new knowledge and creation of the pieces of art, including theatre, performances, festivals should become the direct aim of human activities. The human needs of the Self-actualization will become the main driving force of the economics instead of the Physiological needs and Safety needs.

Multi cultural society is the source of danger. Using the proposed approach for the culture it is possible to see, that contradictions in the models of behavior, prescribed by different cultures, must be solved. In the case of conflict between different models of behavior, belonging to different cultures, there are several steps, how to solve the problem.

The first step in the case of conflict between different models of behavior is the creation of a new, synthetic, self-consistent model of behavior. Usually the new model is integral, some compromise between existing solutions.

The second step is the implementation of the new solutions. In the case if not all members of the society (citizens of the state) agree with the new solutions, the official support is necessary. The new law (new regulations, bureaucratic rules) must be created and accepted to support the new model of behavior.

The third step is the necessary activities to exclude dangerous for the society alternative models of the behavior, if they continue to exist. This step should be avoided for the normal development. Only if other possibilities to avoid conflict do not give the results, punishment, violence, used by the state, is allowed. For example, use of drugs, acceptable in some Eastern systems of behavior, forbidden in the most part of Western countries and punished by the state.

Society is interested to create not contradictory conditions for the realization of the fundamental human need of the Love and belonging. From the financial point of view it is cheaper to support implementation of the accepted, official culture, accepted models of behavior by proper support of education, including amateur activities, than to use punishment, including police, courts and jail. The financial calculation of both ways is not easy, but this is challenge for the economics in the quickly changing multi cultural society.

A good example of the joint efforts to establish a new model, a new self-consistent system in the European higher education is the Bologna process [13]. Quality assurance mechanisms (internal and external) are an important driving force in the Bologna process.

The most challenging for the new economics are the problems concerning the human needs of the Self-actualization. This problem has been discussed by Merab Mamardashvili [14]. The scientific research is not only the tool for the creation of new technologies, for the improvement of the satisfaction of the basic (physiological) needs (earning money for the food, clothing, accommodation etc.). The scientific research allows also to gain recognition, to have higher esteem. The most important new challenge for the economics is to investigate the scientific research as a source for receiving possibility for the Self-actualization. Self-actualization is a very wide group of human needs, which has not investigated in economics.

The scientific research is closely linked with the innovation. Science is the way how to create knowledge using money. Innovation is the way how to receive money using knowledge. Self-actualization is a very wide group of human needs, which has not



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investigated in economics. Creation of the conditions, where people will have possibility to receive and to create new knowledge, could be put in the basis for the important kind of innovations. The new way for the innovations is the direct use of the existing („produced”) knowledge to involve people in the process of the continuous production of the new knowledge [5]. The necessary adaption of the knowledge must be fulfilled for such use. Activities of such kind, mixing entertainment and education, already are going on (for example, the TV program *Discovery*), but the place of such activities in future economics should be much greater. Education and research should be used for the direct satisfaction of the Self-actualization. Now the growing interest in the results of the research is used mainly in the traditional way – as the education activities. The possibility to participate in significant research and to receive useful results is more difficult. Two problems must be solved: 1) to learn the specific language of science; 2) to have possibility to participate in the interactive communication. The most difficult is language problem. More attention must be paid to the mathematics as the language of science. Humanities and art are easier for participation without special knowledge [10]. The activities of different creative associations must be supported as the emerging new kind of social relations, new social structure [8]. The tendency of narrow specialization should be balanced with more active interaction between different groups and different specializations. Diversification of the individual activities, wider use of personal communication is also way to increase sustainability [13].

An example of the interaction of art and business is the activities of the TILLT – a producer of ARTISTIC INTERVENTIONS in organisations [16]. TILLT involves a large group of people in the creative development processes. This is right direction of the development, but it needs rethinking of the aims of business and it should receive the political support. Management of the society should be more oriented to all needs of people. The need of Self-actualization is fundamental and must be included in the aims of business and economics directly [15].

Conclusions

Human centered approach in economics means, that should be investigated all main needs of each human being. Economics should be used as a tool to satisfy not only the Physiological needs and Safety needs but also the needs for the Love and belonging, the needs for the Esteem and the needs for the Self-actualization. The conceptual political documents must take in account all human needs.

Different technologies and methodologies, fixed in any useful way are the main content of the culture according to our definition. Culture is open, self-consistent, continuously developing system of the models of human behavior. Multi cultural society is the source of danger. Society is interested to create not contradictory conditions for the realization of the fundamental human need of the Love and belonging. It is cheaper to support implementation of the unique, accepted by the society, official culture, accepted models of behavior by proper support of education, including amateur activities, than to use punishment, including police and jail. Public management must use associations of creative professions (artists, painters, writers etc.) as a tool for the changing society, introducing new models of behavior according to the



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changes in economics. The organization of the use of the increasing amount of free time must be the object for the investigation in management. More personal communication, personal services and less use of technical equipment will increase sustainability of the society.

The scientific research is not only the tool for the creation of new technologies, but also allows to gain recognition, to have higher esteem. The most important new challenge for the economics is to investigate the scientific research as a source for receiving possibility for the Self-actualization.

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THE IMPACT OF STAKEHOLDERS AS MEMBERS OF A VOLUNTARY BOARD

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Abstract

The voluntary board is the governing body of a nonprofit-organization. Volunteer leaders are responsible, accountable for the performance of a nonprofit-organization, they represent legally their organization. The role of a voluntary board is crucial to the success of a nonprofit-organization and therefore a lot of considerations are to take in: terms of board members, frequency and organization of board meetings, size and composition of the voluntary board, education of board members, the representation of stakeholders:

A stakeholder is any group or individual who can affect or is affected by the achievement of the organization's objectives. Stakeholders could be: members, customers, volunteers, employees, board, interest groups or the government. The question is which stakeholders are to be considered as important for the nonprofit-organization. Speckbacher specifies the presented definition and provides an answer to this question: A stakeholder of an organization is a party, a group that contributes specific resources that create value for the organization. Consequently there are at least two groups of stakeholders: primary and ordinary stakeholders. Nonprofit-organizations have founders but no owners. Legally they are juridical persons but the important difference to for-profit organizations is that they have no owners as natural or legal person who could be entitled to a part of the organization's profit. Stakeholders play an important role for these organizations. They replace the missing owner. And it is the board members who should be representatives of different stakeholders of the organization.

Nonprofit-organizations face the challenge of being multiple-stakeholder organizations. Stakeholders judge the organization's effectiveness, i.e. performance on their point of view. The contribution of this paper is to answer the question how a board can fulfill its leadership role as governing body having members representing different stakeholders.

Introduction

The voluntary board is the governing body of a nonprofit-organization. Volunteer leaders are responsible, accountable for the performance of an association as well as they represent legally their organization [1]. The role of a voluntary board is crucial to the success of a



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nonprofit-organization and therefore a lot of considerations are to take in: terms of board members, frequency and organization of board meetings, size and composition of the voluntary board [2], education of board members, the representation of stakeholders.

Nonprofit-organizations have no owners but founders. Legally, nonprofit-organizations are juridical persons [3] but the very important difference to for-profit-organizations is that they have no owner as natural or legal person who could be entitled to a part of the organization's profit [4]. Members of an association are not an adequate to an owner of a for-profit organization.

The question is on whose interest such an organization will be governed? Nonprofit-organizations face the challenge of being **multiple-stakeholder** organizations [5].

When talking about nonprofit-organizations within this paper, it concentrates on associations being the most important legal framework for nonprofit-organizations in Europe. [6].

The Structure of a Voluntary Board

Generally, there exist two different models to structure a board: The one-tier model with a unitary board of directors is the form of board structure in the UK and USA and is characterized by one single board comprising both executive and non-executive directors. The difference to the two-tier model with a dual board is that there exists a clear separation between management and supervision by an executive board and a supervisory board [7].

Most of the nonprofit-organizations in Europe, i.e. associations are governed by a **voluntary board**. Only in larger organizations the board is assisted by an executive director. This structure corresponds to the one-tier model. It is to state that associations do not apply the mere one-tier model consisting of executive and non-executive directors or inside and outside directors [2]. Voluntary board members are in one and the same person executive and supervisory director [8]. According to the Austrian law on associations it is possible to install a supervisory board [9] but the composition and size of the board matter more than a separate supervisory board [10].

The role of the Voluntary Board

The basic role of a board in a nonprofit-organization is management and control [14, p. 540]. According to the historical based freedom of assembly government has not installed a lot of control mechanisms [11], [12].

Hung shows the relation between roles of governing boards and the organization theories behind: He talks about six roles: linking, coordinating, control, strategic, maintenance and support role [13].

The conclusion to following table is that each theory stresses only one part of the role of a board, no one is able to perceive the whole picture: Resource dependency theory is used to explain the inter-relationship, in the form of resources provision, among organizations and in some cases individuals. Stakeholder theory and institutional theory are sociological paradigms which are used essentially to describe the interaction between organizations and their environment. Agency theory is the economists' effort to analyze the problem of diversity of interest when there is a separation of ownership and management in an organization. Managerial



hegemony, like agency theory, focuses on the modern trend of the dominance of management-based organizations. Stewardship theory is a metaphor of human relations school of organization studies, which portrays a harmonious picture in respect of the management of organizations [13].

Board members may play different roles at the same time in various priorities. Within this scientific paper the coordinating role according to stakeholder theory will be most stressed.

Table 1

Different roles of board members

Governing Board					
Board involvement in decision-making process					
Extrinsic Influence Perspective Contingency Perspective The role to be shaped by contingent factors			Intrinsic Influence Perspective Institutional perspective The role to conforming to institutional expectations		
External environment		Internal environment		Institutionalized through external pressure	Institutionalized through internal pressure
Networking/ interlocking role	Pluralistic organization	Conformance function	Performance function	Identifying with the societal expectation of organization	Instrumental view of directors
<i>Linking role</i>	<i>Coordinating role</i>	<i>Control role</i>	<i>Strategic role</i>	<i>Maintenance role</i>	<i>Support role</i>
Resource Dependency Theory	Stakeholder Theory	Agency Theory	Stewardship Theory	Institutional Theory	Managerial Hegemony

Source: Hung, 1998

Stakeholders and Stakeholder Theory

According to Freeman a stakeholder is „any group or individual who can affect or is affected by the achievement of the organization's objectives” [14]. Stakeholders of an association could be: members, customers, volunteers, employees, board, interest groups, government, etc: Behind each group there are several parties of stakeholders as well.

The number of stakeholders of a nonprofit-organization depends on their mission, their size, their legal form etc. Stakeholders from a nonprofit-organization are different to those of a for-profit organization or public organization. Even stakeholders differ between different nonprofit-organizations [15].

The stakeholder theory considers more constituencies to be important for an organization rather than only the shareholder [7]. It represents a pluralistic approach to organizations [13].



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According to Hung the stakeholder theory is one idea to explain one role of a governing board. Especially in nonprofit-organizations there are not only employees or members to whom such an organization is responsible. The objectives of a corporation should only be achieved by balancing the often conflicting interests of these groups. By incorporating the participation of stakeholders in the governing boards, corporations are likely to respond to the interests of society as a whole. The task of the board members is to negotiate and compromise with stakeholders in the interest of a corporation [13].

Stakeholders represent the missing owner and it is the board members who should be representatives of different stakeholders of the organization [16]. Consequently the board is accountable to their stakeholders. The question is which stakeholders are to be considered as important for the nonprofit-organization. Within the literature there exists no unique suggestion to find out the important stakeholders for an organization. The first step is the knowledge of “who” are the stakeholders of an organization. A brainstorming will provide a lot of stakeholders who will be clustered in a second step. Critics to the stakeholder theory say that it is not possible to consider all stakeholders as equal important [17], which is according to Phillips not the intention of stakeholder theory [18].

Mitchell/Agle/Wood suggest three criteria to select relevant stakeholders: power, legitimacy and urgency [19]: Stakeholders bring in *power* in different ways: expert knowledge, money, relationships, donating time etc. They execute their power in various degrees in assigned working areas. *Legitimacy* is in a way interconnected with power. *Urgency* shows the degree of strength, intensity with which the management copes with expectations of stakeholders.

Speckbacher has developed another method to reduce the number of stakeholders. First he narrows the general definition of Freeman according to the theory of incomplete contracts: A stakeholder of an organization is a party, a group that contributes specific resources that create value for the organization. There are at least two groups of stakeholders: primary stakeholders and ordinary stakeholders. Primary stakeholders are those, whose contractual claim on their return from the investment is incompletely specified and hence unprotected. To protect them from “hold up” Speckbacher suggests to endow them with residual rights of control [20].

Dey et al. find another model to distinguish stakeholders according to different types of dependency: instrumental dependency and ethical dependency [21]. The ethical part of stakeholder theory is also confirmed by Phillips [18].

Whatever theoretical models there are in practical work a nonprofit-organization has to find their way to narrow the important stakeholders, to prioritize among stakeholders [22].

It is not enough today that a nonprofit-organization knows their stakeholders, their “stakes” and their role sets [14] although stakeholders represent a source of uncertainty. The solution is a consistent approach to stakeholders as the dynamic of their interactions may be better anticipated [23].

The Members of a Voluntary Board

As already mentioned in the introduction the voluntary board is the governing body of a nonprofit-organization. This responsibility is also laid down in the law on associations, for example the Austrian law on associations [24]. The duties of the board are quite formal:



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Arranging book keeping/accounting and keeping a record of assets, preparing a financial statement and balance sheet, as well as budget, organizing and convening the membership assembly and deciding the agenda, information of members about the association (club magazine), administering the assets of the association, processing membership applications, hiring and releasing employees of the association.

Within these duties there is a lot of operational and also strategic work to do where a board has its organs to execute these tasks, like treasurer, secretary, further board members according to the working field of an association [9].

Associations working with voluntary board members face a lot of challenges as the following: Because of not being employed they are not available for regular working hours. If they are not retired time for working for an association is restricted. These “honorary manager” are not in a steady process of thinking about goals, problems, business fields. They may have a lack of continuous information for decision making. To face these obstacles the emphasis has to put on excellent communication. The most important difference compared to manager of for-profit organizations is the remuneration: They donate time or specific skills. Their motivation is commitment on a very high level [25]. The range of tasks and duties, strategic knowledge and accountability is the same.

How can stakeholders be integrated in a voluntary board? First it is the constitution where the influence of possible stakeholders is laid down: Different decision-making bodies are empowered with different decision-rights considering the board as a stakeholder. The next step is to take account interests of stakeholders in a stakeholder-oriented organizational structure besides the legal necessities [15]. Madrian shows different solutions to embed stakeholders with respect to the fact that not all stakeholders are willing to execute control over the management body [26]: The first possibility is to appoint one representative for all stakeholders. The advantage of this method is to reduce cost of control and to improve the enforcement of stakeholder interests. The disadvantage is the fiduciary attitude, that the stakeholder representative will not represent the goals of all stakeholders but prefers own goals. The better alternative will be to build a control-body represented by all or at least a lot of stakeholders.

With both models the question arises who will be the stakeholder-representative or part of the control-body built by stakeholders. On the content side the question might only be answered by any nonprofit-organization itself and their environment. On the organizational or structural side there may exist different ideas to overcome this challenge. Methods to reduce the number of stakeholders have been already presented.

Different stakeholders follow different interests being their legitimate behavior. Leadership function in a stakeholder oriented board will mainly be a political one in balancing contradictory interests, goals [27].

When integrating stakeholders in a voluntary board there are further facts to consider: it is the size of a nonprofit-organization that matters, the percentage of operational and strategic work of board members and the skill set of board members: The voluntary board members of small nonprofit-organizations have to do a lot of operational staff as they might not be assisted by paid staff. They are probably assisted by volunteers acting as unpaid staff. Consequently voluntary board members are responsible for parts of the working field of their association. In such small nonprofit-organizations the board has to do both jobs, i.e. a lot of operational jobs and may be less strategic jobs [28]. The skill set of board members concentrates on skills round



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the working field of the nonprofit-organization. The integration of stakeholders will not take place with a separate installed body as the number of stakeholders might be quite small. Either they are directly represented as member or by a stakeholder representative.

The bigger an association becomes the more it is realistic that the board will be assisted by administrative personnel as paid staff. The advantage is that besides operational tasks board members can concentrate also on strategic tasks. The skill set of such board members has to be enriched by strategic knowledge.

In large associations the work from the board will be supported by an executive director. The executive director has limited rights which will be written down in so-called bylaws to the constitution of an association [2]. Paid staff including the executive director will execute operational work and therefore relieve board members from these tasks. The board's task moves normatively to strategic work. The collaboration between the executive director and the board as partnership or team-work is crucial to the success of the voluntary board. In practice in large associations also strategic work will be done by the executive director because of greater information and a greater stake in and identification with the organization. The danger is that the board becomes a "rubber stamp board" [29]. Schuhen discusses also this paradox from Axelrod – the board holds the ultimate power but does not ordinarily wield it operationally [1]: He suggests to educate board members that they gain skills to do their managing job or to replace them by employed managers [30]. The bigger an association becomes the more it is necessary to think about an additional supervisory board to represent stakeholder interest.

In nonprofit-organizations leadership and management in voluntary boards cover a wide range. Theuvsen has an adequate description for this situation: leadership between mission and muddling through [31].

Performance and the Impact of Stakeholders

As a result of being a multiple stakeholder organization nonprofit-organizations have multiple bottom lines [32]. The board is accountable to their stakeholders. In nonprofit-organizations the economic performance, i.e. the financial bottom line is only the basis [33], it is a constraint and no long-run objective. But stakeholders can only improve the performance when they are empowered to lead [34] as member of a board. Speckbacher defines what could be meant by performance in a nonprofit-organization: It is balancing the contributions of all stakeholders against their share and hence determining the extent to which implicit claims are fulfilled. [35]. It seems to be obvious that generally spoken performance is the extent to which the organization's mission is achieved.

How can the organizational performance be judged by stakeholders? First it is to differ between a formal control and looking on performance. As already mentioned according to the historical based freedom of assembly there is not installed a lot of control. An association has contact to a legal authority mainly in the state of foundation [12]. An ongoing control by the government in publishing balance sheets is not installed.

An inside control is for example executed within the Austrian law on associations by defining accounting standards for small, middle and large associations and the nomination of two auditors or an auditing company in case of a large association. The auditors are responsible



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for checking the daily business, the financial conduct in respect of its compliance with accounting principles and its proper use of resources in ways compatible with the constitution. This type of control is a very formal one, e.g. checking if documents are available for any business transaction, if the balance within the accounting system corresponds with the bank statement, the check of the cash etc. The auditors look also on the execution of made board's decisions corresponding to the minutes. It is not the duty of the auditor to check the activities of an association concerning profitability, usefulness, economy or purpose. The function of an auditor must not mixed with managerial accounting [36].

Members as one important group of stakeholders play a significant role within an association: With their money they support financially the organization, they contribute to the success of an association. Members are not classified as owner from the juridical or legal point of view although they have certain rights, e.g. they elect the members of a board at the annual general meeting and after each period they approve the members of the board. The rights enabling members to exercise influence at the annual general meeting are less developed according to a weak information right [37]. The members execute a certain control of performance over the voluntary board but the question is about the content of their control according to the definition of objectives and measuring the achievement of them [8].

Herman/Renz show that performance measurement contains mission accomplishment and consequently there are no objective criteria for such an assessment. A wide range of stakeholders makes clear that every group of stakeholders judges organizational effectiveness – mission accomplishment – on their own criteria [38]. According to Kaplan nonprofit-organizations lack the simple elegance of a financial measure [39]. Any nonprofit-organization has to find its own criteria and because of the absence of the mentioned financial measure nonprofit-organizations use a lot of qualitative criteria to measure effectiveness.

When talking about tools to measure the performance it is the Balance Scorecard which explicitly tries to capture also nonfinancial measures being inevitable for nonprofit-organizations. It measures success in four perspectives: financial, customer, internal, learning and growth. This tool was invented in the for-profit area but because of the multi-dimensional measure it is a very useful instrument for nonprofit-organizations [39].

Empirical Study

The theoretical discussion about the impact of stakeholders in a voluntary board will be completed by an empirical study. Within my dissertation "Corporate Governance in Alpine Clubs in Europe" stakeholders play an important role by executing control on performance as to be claimed by the concept of corporate governance: "*Corporate Governance is the system by which companies are directed and controlled*" [40]. The discussion of the corporate governance concept within nonprofit-organizations discusses the topic control, too, especially the scope of control and its effectiveness.

With following hypothesis the impact of stakeholders on the system, the structure of nonprofit-organization will be examined: "***To meet the expectations of various stakeholders nonprofit-organizations (associations) change their structure when passing critical performance factors***".

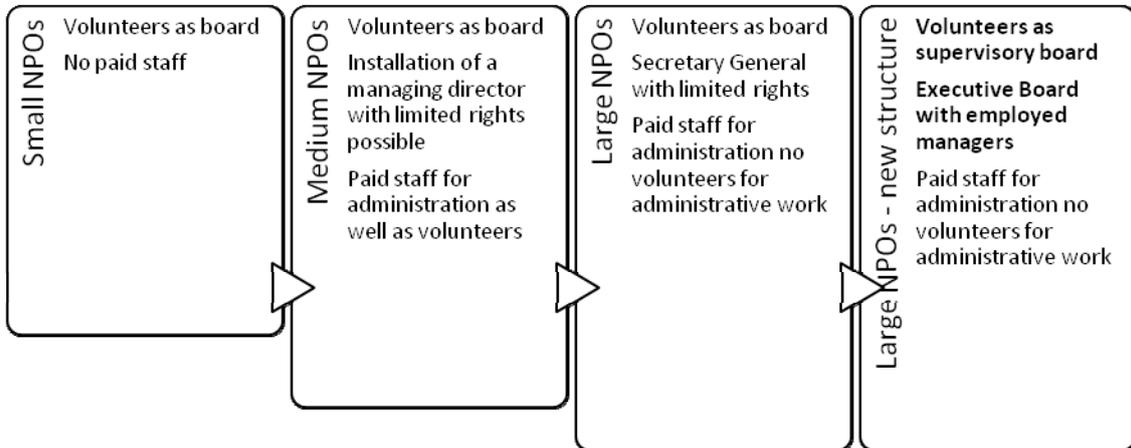


Figure 1. Different structures of NPOs governance

Source: own table

The study should bring answers to the given hypothesis as well as additional information about Alpine Clubs. According to this picture following questions arise: Why there are small, little and large associations? Which number of stakeholders these associations is forced to care about? By which model stakeholders are represented in a board? How can such a board fulfill its leadership function? Which leadership models are used? Which leadership skills and tools are necessary as the scope of leadership being different in all three types of associations? Which critical performance factors cause a change in the governance system of such associations?

The research field is Alpine Clubs in Europe, which were founded as small associations starting in 1862, e.g. Austrian Alpin Club (Oesterreichischer Alpenverein), German Alpine Club (Deutscher Alpenverein), Swiss Alpine Club (Schweizer Alpenklub), Italien Alpine Clubs (Alpenverein Südtirol and Club Alpino Italiano), French Alpine Club (Le Club Alpin francais).

The research method is qualitative face-to-face interviews by using a structured questionnaire with about 30 volunteer leaders and also executive directors. Additional quantitative data will underline the result of this research: number of volunteer leaders and unpaid staff, number of male and female volunteer leaders, number of board meetings, frequency of board meetings, questions regarding the services offered by these associations, etc.

Conclusion and Further Prospect

Stakeholders play an important role for nonprofit-organizations as they judge the organization's effectiveness. Stakeholders interpret the fulfillment of the mission, i.e. performance of their organization, on their specific expectations. Because of a missing owner they are empowered to this ultimate judgment.

The purpose of this paper was to answer the question how a board could fulfill its leadership role as governing body having members representing different stakeholders. The paper gives an overview to theoretical consideration concerning the impact of stakeholders in a



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voluntary board. Because of the limited space of this scientific paper it covers not all aspects in detail. The most important part will be the mentioned empirical study to find out the impact of stakeholders in practice.

I do hope to present first results about this empirical study when presenting the scientific paper on the Conference in Riga in May 2012!

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**BUY-AND-HOLD:
THE PARADOX OF BALTIC SECURITIES MARKET**

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Abstract

Understanding the characteristics of an efficient market and being able to evaluate the efficiency of a particular market are important topics for investment analysts and portfolio managers. Market efficiency is the extent to which market prices incorporate all currently available information about respective companies. In case of high market efficiency, prices fully reflect all known information, and even uninformed investors buying a diversified portfolio at the tableau of prices given by the market will obtain a rate of return as generous as that achieved by the experts [1, 3]. From other side, if market prices do not fully incorporate information, then there exist opportunities to make profit from data gathering and processing. An efficient market is thus a market in which asset prices reflect all past and present information [2].

The aim of the paper is to perform market situation analysis in order to reveal if investment strategy, used by the majority of Baltic investors, is consistent with the level of efficiency of Baltic stock market.

The tasks of the paper are:

- 1) basing on literature and international journals' publications, to reveal key features of efficient stock market;
- 2) to determine which investment approaches are applicable to different forms of market efficiency;
- 3) by using expert questionnaires as the main methodology, to reveal the level of Baltic Stock Exchange's efficiency; to find out what investment strategy is the most commonly used among pan-Baltic investors; to determine if Baltic stock market is attractive for foreign investors.



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The results of the expert survey show that the majority of Latvian investors use an investment strategy which is not compatible with the level of market efficiency of Baltic securities market. According to paper's findings, Baltic investors' should reconsider their investment strategy, as its change might significantly improve the quality of investment, will allow to minimize commission costs and increase overall investment profitability. Since an appropriate, either active or passive, investment approach is selected, further steps for developing investment strategy for Baltic stock market can be taken, so the aim of the current research is to establish a fundamental basis for consistent step-by-step approach to investment to Baltic Stock Exchange.

Market Efficiency and Characteristics of Efficient Market

Market Efficiency and Price Informativeness

When investors plan to buy a company's shares, they attempt to define shares' value by determining how much money they will receive in future dividends from those shares and how value of these shares might change in the forthcoming years. There are considered shares' riskiness and company's ability to earn profits in the future. As a result, share price is a reflection of all known information and represents the collective beliefs of all investors about the business's future prospects. Market efficiency is the extent to which share market prices incorporate available relevant information. If market prices do not fully incorporate information, then there exist opportunities to make profit from gathering and processing information, by buying undervalued shares and selling overvalued shares [3, 4-5].

According to the Efficient Market Hypothesis (EMH), a market is said to be informationally efficient if prices in that market reflect all relevant information as fully as possible [4, 4]. In market-based economies, market prices help to determine which companies and which projects obtain capital, thus helping to direct scarce resources and funds available for investment to their highest-valued uses. As a result, informative prices promote economic growth. The efficiency of a country's capital markets, in which businesses raise financing, is an important characteristic of a well-functioning financial system.

Investment managers and analysts, as noted, are interested in informational market efficiency because the extent to which a market is efficient effects how many profitable trading opportunities (market inefficiencies) exist. Market inefficiency provides opportunities to beat the market, at least in short-term. Consistent, superior, risk-adjusted returns (net of all expenses) are not achievable in an efficient market. In a highly efficient market, a passive investment strategy (i.e. buying and holding a broad market portfolio) that does not seek superior risk-adjusted returns is preferred to an active investment strategy because of lower costs (for example, transaction and information-seeking costs). By contrast, in a very inefficient market, opportunities may exist for an active investment strategy may outperform a passive investment on a risk-adjusted basis [2].

According to efficient market hypothesis, the entry into the market by buyers at any time gives equal benefits to all. The prices are determined in a random manner by competitive forces and perfect information flow, so are independent of the past prices [5, 345].



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For markets to be efficient, current prices should fully reflect all currently available information, which means that prices should quickly and rationally adjust to each release of new information. As a result, asset prices in a highly efficient market reflect information more quickly and accurately than in case of less efficient market. Although there is no precise time frame for how quickly asset prices reflect information, it is generally accepted that the adjustment should be sufficiently swift to make it impossible to consistently earn abnormal returns. Chordia, Roll and Subrahmanyam suggest that price adjustment on the New York Stock Exchange happens within one hour [6]. Another important issue in an efficient market is that prices should be expected to react only to the elements of information releases that are not anticipated fully by investors; there should be the unexpected or surprise element of such releases. Investors process the unexpected information and revise expectations (e.g. for future cash flows or return) accordingly. After that, the market establishes new price, which balances the various opinions after expectations are revised [2]. However, numerous academic studies have concluded that investors can reap even superior performance by trading on the basis of the unexpected earnings contained in public announcements. The observance of superior risk-adjusted performance from trading on the basis of publicly available information, actually, appears to be contrary to market efficiency – hence, the expected earnings anomaly [7]. Nevertheless, quick adjustment of stock price to release of new information still is considered by many authors to be one of the core features of effective stock market.

Market Value and Intrinsic Value

Market value is the price at which certain asset can currently be bought or sold. Intrinsic value, also referred as fundamental value, is an estimated true value of the company, considering its balance sheet book value and using different valuation approaches. For defining company's intrinsic value, fundamental analysis is used and various factors are considered, such as value of underlying assets, business model, market factors, analysis of financial statements, future prospects, etc. Intrinsic value of the company, as far as estimation approach may differ, has no exact value.

If investors believe a market is highly efficient, they will usually accept market prices as accurately reflecting intrinsic values. Discrepancies between market price and intrinsic value are the basis for profitable active investment. Active investors seek to own assets selling below perceived intrinsic market value in the market-place and to sell short assets selling above perceived intrinsic value. If investors consider that the market is relatively inefficient, they may try to develop an independent estimate of intrinsic value, which actually may be difficult because of existence of numerous theories and models, such as capital asset pricing model (CAMP) and dividend discount model (DDM) [2].

Number of Market Participants and Information Availability

Number of market participants is one of the key factors, setting the level of market efficiency. In case of small number of market participants, not many people are following the news and, as a result, the price reacts to news releases, either positive or negative, very slowly. In case the company is not a blue-chip, the majority of research analysts do not follow its news and therefore also ignore some changes in its fundamental value. Number of investors and financial analysts, following the security market, should be positively related to market



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efficiency, as high trading activity and market liquidity contribute to higher market efficiency. Various limitations for foreigners, such as prohibition to trade certain listed stocks, restrict trading activity, which, in its turn, reduces market efficiency.

Other factors, which promote market efficiency, are information availability and high level of financial disclosure. These imply broad coverage of financial news media, availability of analytical reviews about listed companies, activity at financial forums, etc. In case of efficient market, the information available to shareholder is completely up to date, full, fair, reliable and freely available, which implies it is easily accessible at zero or negligible cost. If the market enjoys a particularly high level of efficiency, investors even do not have to read or analyze information, as the market has already done it for them [3, 6].

According to E. Fama (1970), depending on the level of the information availability, there can be distinguished three forms of market efficiency [8; 5, 351]:

- weak form efficiency, when price reflect only past information;
- semi-strong efficiency, when all relevant publicly available information is considered;
- strong form efficiency, which requires that prices, in addition to public information, also reflect private information as fully as possible.

Market Type and Fair Disclosure

Market efficiency also depends on a type of a market. Trading activity and information availability may be lower in smaller securities markets, such as in some emerging markets. At small stock exchanges shares are traded in insufficiently large volumes, or there are also many small companies that are not sufficiently traded. There also may be lack of interest in stocks of small companies, so the market in these thinly traded stocks may be inefficient at times and it is open for speculators to profit from such situations. In case of large stock exchanges, the price of a company's shares is likely to be the same, or about the same, across other exchanges as otherwise arbitragers will buy at one exchange and sell on another at a profit [3, 5].

In case of over-the-counter (OTC) markets, the information provided by dealers who are also market makers for these markets, can vary significantly in quality and quantity terms [2].

Fair treatment of all market participants, promoted by regulatory institutions, such as U.S. Securities and Exchange Commission (SEC), is an essential part of efficient market. Fair treatment implies that all investors have an access to the information necessary to value securities that trade in the market. For example, SEC's Regulation Fair Disclosure requires that if security issuers provide nonpublic information to some market professionals or investors, this information must be disclosed also to the public [9]. This requirement helps to provide equal and fair opportunities, which is important in encouraging participation in the market. SEC's rules also prohibit insider trading or trading in securities by corporate insiders or any other individuals, who possess material nonpublic information about the security and are aware of that [10]. There is a general term, used to describe actions by investors that unfairly take advantage of other investors – market abuse. It includes not only insider dealing but various actions attempting to mislead the market, such as providing false information about a company's performance, manipulating company's report and accounts or giving a misleading impression of the market and the volume of trading in company's shares to influence their price [3, 9].

All the characteristics of efficient and inefficient markets are summed up in Table 1.



Table 1

General characteristics of efficient and inefficient markets

Efficient Market	Inefficient Market
prices quickly adjust to new information	slow adjustment to new information or even ignorance of it
market price reflects intrinsic value	market price essentially differs from intrinsic value
large number of market participants	small number of market participants
no limitations to foreign investors	there are limitations to foreign investors
high level of financial disclosure, investor relations	only minimal required level of information disclosed
zero/negligible information costs	higher fee for information
usually for large stock exchanges in developed markets	usually for small emerging markets
fair treatment of all market participants is promoted	opportunities for different types of investors may vary; higher probability of market abuse
technical analysis is more applicable	fundamental analysis is more applicable
low possibility to beat the market	opportunities to outperform market index

↓	↓
passive/buy-and-hold investment strategy	active/speculative investment strategy

Source: made by author, basing on theoretical summary

Market Efficiency of Baltic Stock Exchange

According to the key assumptions of different levels of market efficiency, passive or buy-and-hold investment strategy is more applicable in terms of high level of market efficiency, while in terms of inefficient market active or speculative strategy should be used. As far as Baltic countries are emerging markets with small stock exchanges, the author assumes that the level of market efficiency in Baltic countries is much lower than in developed countries. However, according to the reference book “10:00-14:00”, published by Riga’s Stock Exchange in co-operation with leading investment professionals, almost 95% of Latvian investors use buy-and-hold strategy, which, according to theory, is not effective in terms of inefficient market [11, 66]. In order to check this inconsistency, the author of the paper developed her own questionnaire for Latvian investment experts, who have considerable working experience in banking and finance industry and on a regular basis make investment decisions regarding Baltic stocks.



The aims of the expert questionnaire are:

- to reveal which investment strategy is considered by investment experts as the most efficient in case of Baltic stock market and which investment strategy is used by the majority of local investors
- to determine the level of efficiency of Baltic stock exchange
- to reveal the key specific characteristics of Baltic stock market, determine its attractiveness to foreign investors and find out which factors may deter foreign investors from acquiring stocks of companies, listed at Baltic stock exchange

On the whole, the expert questionnaire was filled by eight Latvian investment industry specialists. The following graphs illustrate the results of the survey.

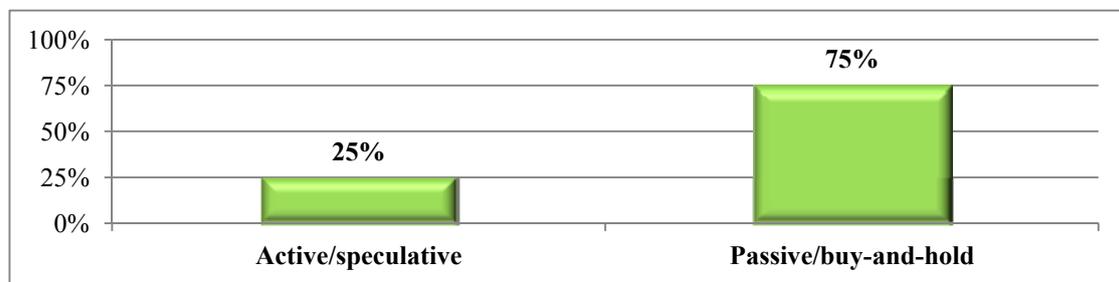


Figure 1. Which investment strategy is more applicable to Baltic stock market in order to achieve higher returns in long terms?

Source: Figure 1 to Figure 7 are created by the author, basing on expert survey results

The majority of experts state that passive or buy-and-hold strategy is more effective in terms of Baltic stock exchange (see Figure 1). The same responses were also to the question “Which investment strategy is used by the majority of Baltic investors?” (see Figure 2). So the results prove that passive investment strategy in case of Baltic Stock market is considered as more effective among professional investment specialists and as well as is more widespread among private investors.

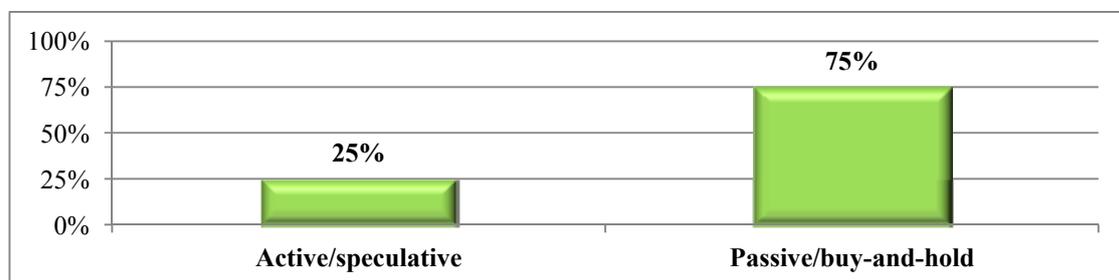


Figure 2. Which investment strategy, in your opinion, is used by the majority of Baltic investors?



All experts were completely unanimous, that fundamental analysis is more applicable in terms of Baltic stock market than technical analysis (see Figure 3). This is actually in conflict with experts' answers to Question 1 and Question 2, as financial theory states that technical analysis is much more applicable than fundamental analysis if a passive investment strategy is implemented. Fundamental analysis implies the search for market inefficiencies and improperly valued assets, while passive investment strategy relies on the fact that current price completely reflects all currently available information.

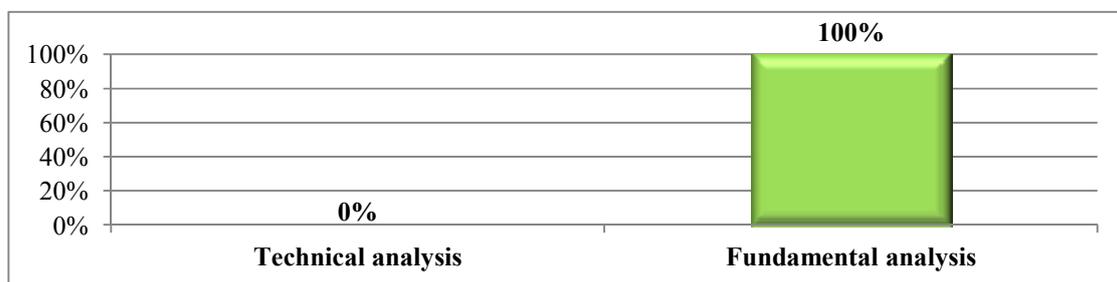


Figure 3. Which analysis approach is more applicable for Baltic stock market?

The first set of questions shows that there is an obvious contradiction between the investment strategy and type of market analysis implemented by Baltic investors. Further questions aimed to reveal the level of efficiency of Baltic stock market.

Asked, how quickly Baltic stocks' prices adjust to new information, the majority of investors stated that on the whole it may take up to one week, or investors may even leave news releases unnoticed (see Figure 4). One expert noted that price adjustments of Lithuanian and Estonian stocks happen quite quickly, during several hours after being announced, while Latvian investors react more slowly or even completely ignore the event.

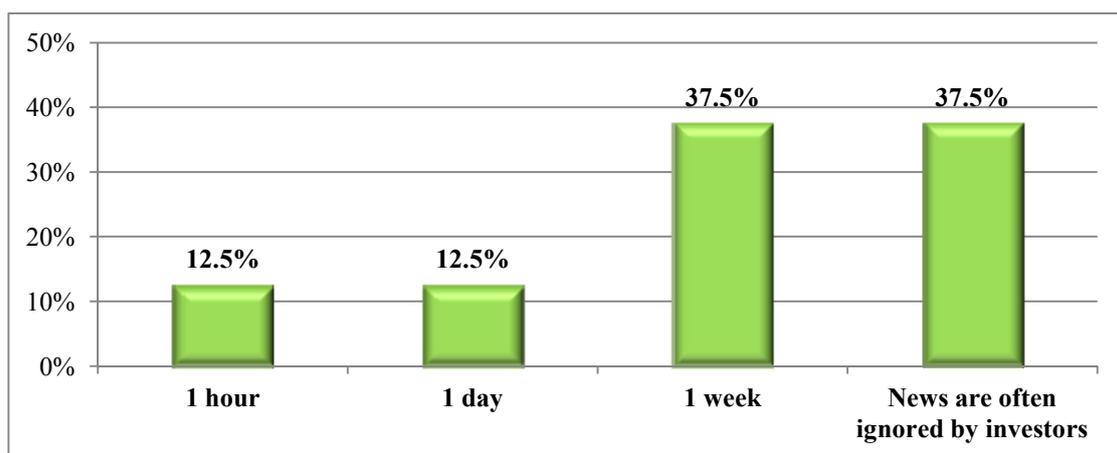


Figure 4. How long does it take for Baltic stocks' market prices to adjust to new information releases?



The majority of experts think that Baltic stock market prices and intrinsic values of underlying companies usually differ quite significantly (see Figure 5). However, experts pointed out that it depends on investor relations of a certain company, business cycle and country. In terms of economic growth the majority of stocks tend to be overvalued while in terms of recession stock prices become unreasonably low. It was also noted that in case of Lithuanian and Estonian markets, stock prices more accurately reflect true value of underlying companies. Nevertheless, the majority of experts still agreed, that, on the whole, market prices do not correspond to companies' true value, which is usually true in terms of inefficient market.

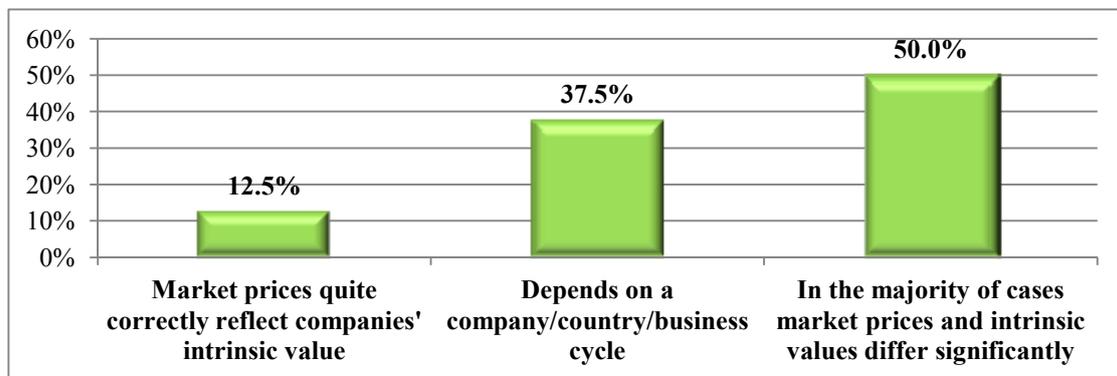


Figure 5. Do stock market prices in the Baltic exchange correspond to their fundamental value and objectively reflect the future prospects of the firms? / Do stock market values objectively reflect the true value of respective companies?

Being asked about number of participants on the market, only two experts claimed that market prices are influenced by many small players. The majority still agreed that the market to a larger extent is influenced by several large participants (see Figure 6). Many small companies with insufficient market capitalization usually enjoy very little interest from large investors' side do to lack of liquidity. Dominance of several large players, according to financial theory, is usually a sign of market inefficiency.

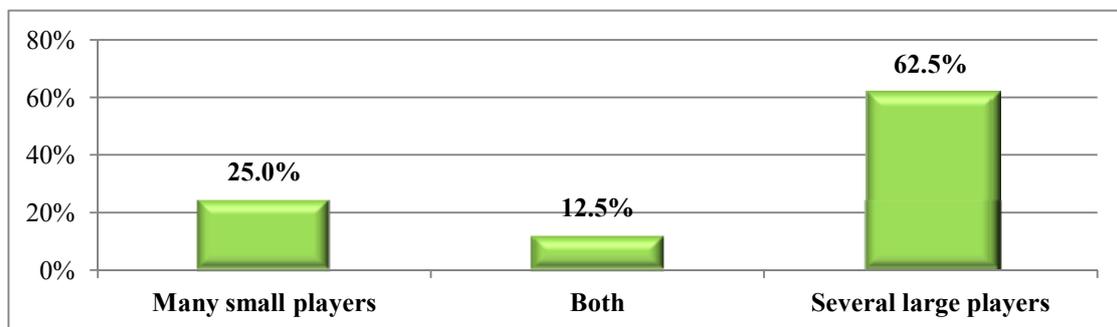


Figure 6. Is the market more influenced by several large players or many small participants?



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While estimating quality of investor relations of listed Baltic companies, the majority of experts state that generally companies provide only minimal financial disclosure, hardly communicate with investors during the year and do not really consider stock exchange as a way to attract additional capital (see Figure 7). However, many also noted that some companies, especially in Lithuania and Estonia, as well as some Latvian players, such as SAF Tehnika and Grindeks AS, very willingly communicate with investors and overall quality of investor relations in Baltic countries tends to improve. None of experts fully supported the statement of high financial disclosure, which is also an additional argument for market inefficiency of Baltic stock market.

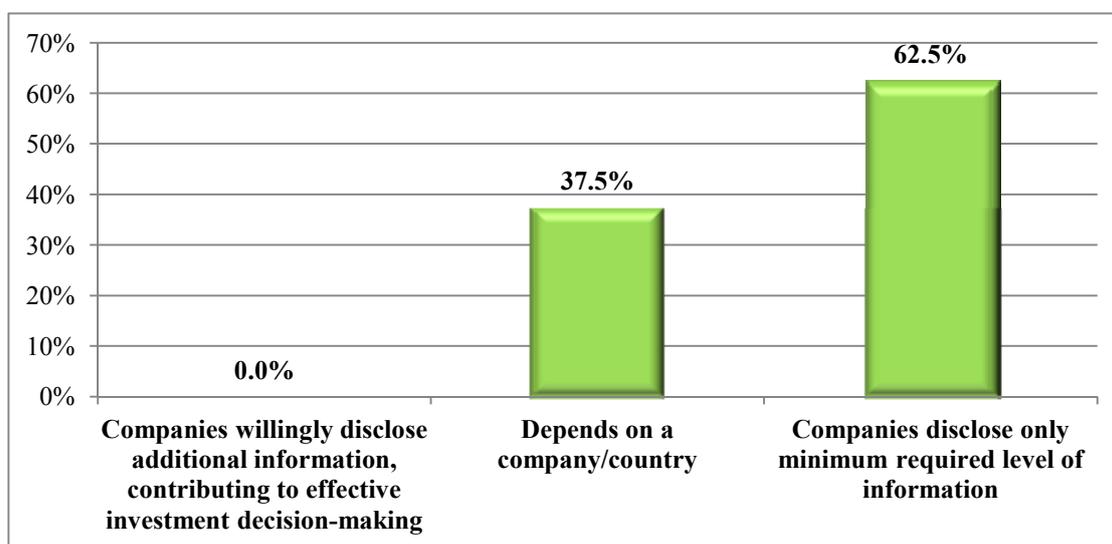


Figure 7. How would you evaluate investor relations and the level of financial disclosure of listed Baltic companies?

The aim of the last two questions in the questionnaire was to determine the attractiveness of Baltic stock market for foreign investors. Only one expert stated that the market is currently attractive for non-Baltic investors. The rest experts classified Baltic stock market as too small, specific, illiquid and inefficient. It was also mentioned that there is a lack of market flagmen – big companies which can attract potential investors, and the market on the whole would benefit from that.

Among key factors, which deter foreign investors from purchasing Baltic stocks, were small market turnover, insufficient market capitalization and lack of liquidity. Baltic market also has a very narrow choice of corporate bonds, which enjoy increasing popularity in terms of economic instability as a less risky investment tool. In the global scope, local companies are too small to attract considerable investments, and these will almost certainly erode market price, causing it to increase significantly. Also foreign investors and funds avoid purchasing controlling stock, as this will require involvement in company management. Many funds also prefer not to acquire more than 5% of company stocks as this requires registration in public owner list.



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In Baltic states it is also not popular to raise capital through issuing stocks, the majority of companies prefer to take bank loans, so number of initial public offerings (IPOs) is very low – there were only two of these during 2009-2011. There were also mentioned lack of analytical information, conflicts of interest between managers and investors, and insufficient investor relations.

The problem of Latvian stock market is that the trade currency there still is Latvian lat, which creates additional currency conversion costs. At Lithuanian and Estonian stock markets there is already used euro.

Summary of Survey Results

The results of the expert survey showed that Baltic stock market indeed is highly inefficient, which is in line with initial author's assumptions. However, at the same time experts also agreed that buy-and-hold is more appropriate and more commonly used investment strategy among Baltic investors, than speculative strategy, although the last, according to the finance theory, is much more effective in terms of low market efficiency.

The fact that currently the majority of market participants are using investment strategy which is inefficient in terms of local market conditions assumes that it would be reasonable for many investors to review their approach to investments. One of the key advantages of switching from passive to active investment strategy is an optimization of commission costs. On whole, Latvian banks, such as Swedbank, SEB and LHV Banka, offer two key solutions for commission fees: either charging LVL2 on average for each transaction (for passive investors) or subscribe for trade platform with around LVL8 monthly fee plus reduced LVL0.5 commission for each transaction (for active investors). The following graph (see Figure 8) shows that subscribing for trade platform becomes more economical as soon as number of transactions each month exceeds five.

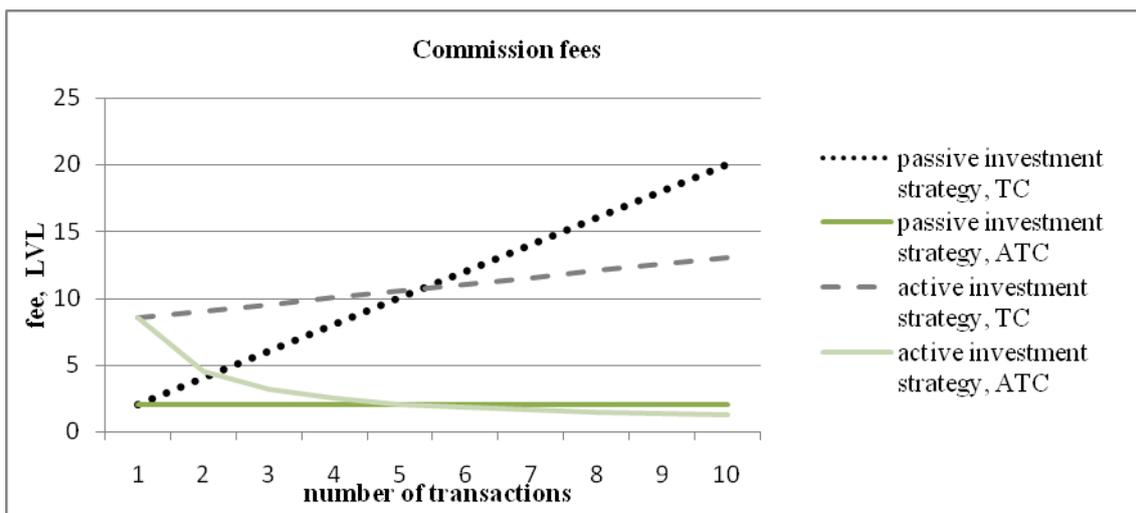


Figure 8. Commission fee in Latvia, depending on number of transactions, LVL

Source: made by author, basing on key Latvian banks' pricelists



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Beyond personal benefit and optimization of transaction costs, a switch towards active investment strategy would also positively impact Baltic stock market on the whole. Market turnover and liquidity would improve, which, in its turn, would lead to higher market efficiency, attract foreign investors and even new IPOs.

Conclusions

Market efficiency is the extent to which market prices incorporate all currently available information about respective companies. An efficient market is a market in which asset prices fully reflect all past and present information, as well as quickly and rationally adjust to relevant corporate news. In terms of efficient market, price corresponds to asset's intrinsic value. An efficient market also implies that there is a high level of financial disclosure and highly developed investor relations as well as zero or negligible information acquisition costs. In terms of efficient market, technical analysis and buy-and-hold investment strategy are applicable.

Among key factors, which contribute to increasing market inefficiency, are small number of market participants, limitations to foreign investors, and a higher fee for information. In terms of inefficient market, active or speculative investment strategy is much more effective, comparing to passive strategy, as there exists opportunity to beat the market by trading stocks, market prices of which do not correspond to companies' intrinsic values.

The results of the expert survey show, that Baltic stock market cannot be classified as efficient. At the same time, the majority of pan-Baltic investors use buy-and-hold investment strategy, which, according to theory, is not effective in terms of inefficient market. As a result, a conclusion was made by the author, that, in order to minimize commission fees and improve market efficiency, pan-Baltic investors should switch towards an active investment strategy. The last will increase market liquidity and market turnover and, as a result, also increase Baltic stock market's attractiveness to foreign investors. As a result of improved market efficiency, more Baltic companies might show an interest towards listing in stock exchange, which will contribute to further market development. So the switch to active investment strategy might actually be a key to increasing market efficiency, from which all market participants will benefit.

After summarizing the results of the expert survey, the author of the paper searched academic journals for studies on emerging European stock markets in order to find an additional support for her findings. For example, Fifield, Power and Sinclair, researched eleven European stock markets. The findings indicate that the emerging markets included in the paper are informationally inefficient and active strategy outperformed the buy-and-hold strategy in the emerging markets examined even after the consideration of transaction costs [12]. Many authors also challenge the EMH assumption that technical analysis is not applicable in terms of market inefficiency and state that simple technical trading strategies can be employed for forecasting share price changes also in case of emerging stock markets [13].

As far as there are numerous researches both supporting assumptions of EMH and denying these, the author of the paper sees the necessity to remain flexible and develop a tailored investment strategy for Baltic stock market, which would consider various tools of fundamental and technical analyses as well as various aspects of heuristics and other behavioural factors. Conclusions made within current paper will serve as a starting point for further research on Baltic stock market.



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INTERNAL AUDITING IN LOCAL GOVERNMENTS

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Keywords: internal audit, local government, internal control

Abstract

Internal audit provides support to the leader of the local government in the establishment of an effective and comprehensive internal control system by assessing and providing recommendations for improvement of internal control system.

The aim of this research is to assess the development perspective of internal audit in local governments in Latvia.

Three tasks have been set in order to reach the aim of this research: 1) analyze the nature of the internal audit, 2) analyze the basic needs of internal audit in local governments in Latvia, 3) research internal audit development situation in Latvian local governments.

The research is based on three methods: 1) logically constructive method – logical interpretation of the already published by the other authors data about internal audit in local governments, 2) monographic method – interpretation of the data based on proven knowledge about internal audit in local governments, 3) document analysis method – study and evaluation of the normative acts and scientific researches, parameters of local governments budgets at the context of the aim of this research.

From the results of the research the author has come to the following conclusions. The internal audit has been organized and is working only in 19 out of 119 local governments in Latvia. Internal audit in local governments should be developed by making changes in Latvian legislation – it is necessary to introduce mandatory requirement in the legislative acts about foundation of internal audit in local governments accordingly to the criterions of local government budget indicators, number of the staff in the local government and number of enterprises with local government share capital.

Preamble

Internal auditing is part of the monitoring function of internal control that examines and evaluates the adequacy and effectiveness of other controls [1].

The institute of Internal Auditors (IIA) defines internal auditing as:

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its



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objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes [2].

The objective of this research is to assess the development perspective of internal audit in local governments in Latvia.

Three tasks have been set in order to reach the aim of this research: 1) analyze the nature of the internal audit, 2) analyze the basic needs of internal audit in local governments in Latvia, 3) research internal audit development situation in Latvian local governments.

The study contains a description of internal audit guidelines, research results about internal audit units in Latvia local governments and conclusions and proposals.

Internal Audit Guidelines

The essential parts of internal audit definition are as follows:

- Internal indicates that auditing activities are carried on within organizations. Today employees of the organization may conduct internal audit activities, or they may be outsourced to other professionals outside the organization who serve the entity;
- Independent and objective makes it clear that the auditor's judgement has value when it is free of bias;
- Systematic, disciplined approach implies that the internal auditor follows professional standards that guide internal audit work;
- Helps an organization accomplish its objectives indicates that internal auditing exists to aid or benefit the entire organization and is guided by the organization's goals and objectives. Some specific ways in which internal auditors add value include a focus on the improvement of *the organization's operations and the effectiveness of risk management, control, and governance processes* [1].

International standards for the professional practice of internal auditing part 1100 – Independence and Objectivity determine that the internal audit activity must be independent, and internal auditors must be objective in performing their work.

Independence is the freedom from conditions that threaten the ability of the internal audit activity to carry out internal audit responsibilities in an unbiased manner. To achieve the degree of independence necessary to effectively carry out the responsibilities of the internal audit activity, the chief audit executive has direct and unrestricted access to senior management and the board. This can be achieved through a dual-reporting relationship. Threats to independence must be managed at the individual auditor, engagement, functional, and organizational levels.

Part 1110 – **Organizational Independence** determines that the chief audit executive must report to a level within the organization that allows the internal audit activity to fulfill its responsibilities. The chief audit executive must confirm to the board, at least annually, the organizational independence of the internal audit activity. Organizational independence is effectively achieved when the chief audit executive reports functionally to the board. Examples of functional reporting to the board involve the board:

- approving the internal audit charter;
- approving the risk based internal audit plan;



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- receiving communications from the chief audit executive on the internal audit activity's performance relative to its plan and other matters;
- approving decisions regarding the appointment and removal of the chief audit executive; and
- making appropriate inquiries of management and the chief audit [3].

Internal Audit in Latvia Local Governments

In this research author find out that just in 19 local governments out of 119 is internal department formed or one internal auditor is working in unit of Finance or Accountancy department of local government.

Below in Figure 1 obviously we can see that incomes and expenses per one inhabitant in local government are not uppermost indicators for internal audit unit size. Most of all internal audit units have just one internal auditor, what is not the best internal audit practice consider to International Audit Standards.

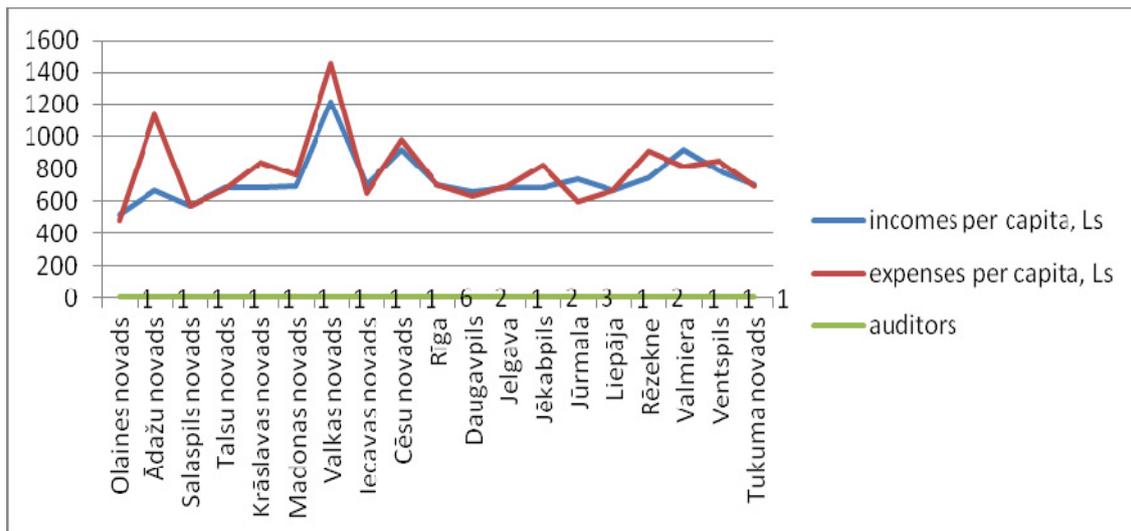


Figure 1. Incomes and Expenses per capita and number of auditors in Latvia local governments in 2011

Source: Author's construction based on data from LR Central Statistical Bureau (inhabitant's data on 30.09.2011) and Ministry of Finance, data (data on 31.12.2011) and authors research data.

From data in Table 1 below we can see that incomes per one inhabitant in local governments with internal audit are within 518 and 1219 lats, whereas expenses are within 485 and 1453 lats per one inhabitant in local government, overall average incomes and expenses are 750 lats per one inhabitant.



Table 1

Incomes per one inhabitant in local governments with internal audit

	N	Minimum	Maximum	Mean
Incomes_per_capita	19	518.00	1219.00	732.6842
Expenses_per_capita	19	485.00	1453.00	786.6842
Area	19	18.00	2160.00	468.0000
Valid N (listwise)	19			

Source: Author's construction based on research data

Below in Figure 2 we can see local governments with internal audit divided groups of Latvia planning regions, most of all local governments with internal audit are located in Riga planning region, 21% local governments with internal audit are located in Vidzeme, but equally 16% out of local governments with internal audit are located in Latgale, Zemgale and Kurzeme regions.

It is necessary to introduce mandatory requirement in the legislative acts about foundation of internal audit and size of internal audit unit in local governments accordingly to the criterions of local government income, expenses criteria per capita and local government area etc. There is possibility to form internal audit functions just in larger local governments.

Internal audit must exist beside State Audit Office of Latvia (Valsts kontrole) and external auditors (sworn auditors). All audit plans must be concerted actions between all of audits accordingly with International Standards on Auditing 610 standard using the work of Internal Auditors and both audits must improve organisations performance not increase administrative burden.

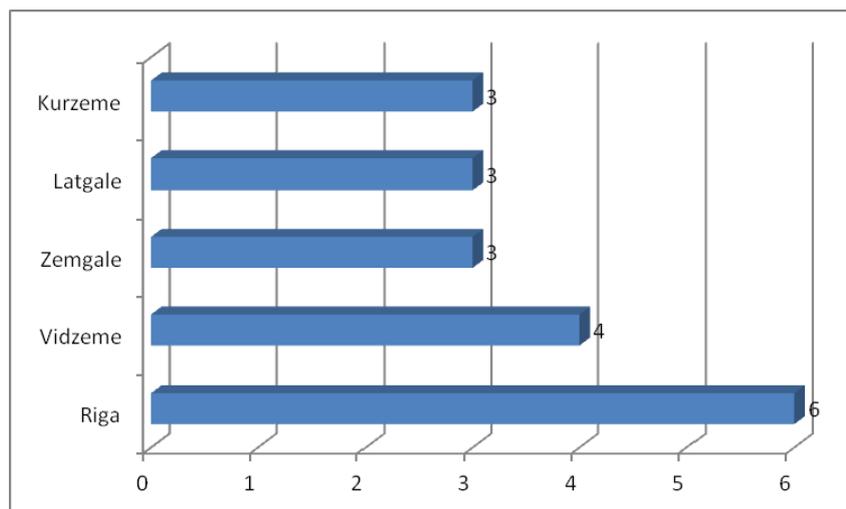


Figure 2. Number of Local governments with Internal Audit on January, 2012

Source: Author's construction based on research data



After analyzing local governments with internal audit organizational schemes author comes to conclusion that in eleven local governments with internal audit organizational structural schemes internal audit position is found according to International Internal Audit Standards which stated, *that Organizational independence is effectively achieved when the chief audit executive reports functionally to the board* [3].

Below in Table 2 we can see that there were no organization scheme included in four local governments home pages and in four local governments organization schemes were found nonconformity with International Internal Audit Standards, because internal auditor is employee in Finance or administrative unit of local government administration and is not directly fed to the chief operation officer or council chairmen.

From Table 2 data we can see that in 10 local governments with internal audit organizational structural schemes internal audit position was founded according to International Internal Audit Standards.

Table 2

Internal audit in organizational structure in local governments

No.	Local government	Dependency	Is it according to International Internal Audit Standards
1	Cesu novads	Council chairman	Yes
2	Daugavpils	Council chairman	Yes
3	Valkas novads	Council chairman	Yes
4	Iecavas novads	Council	Yes
5	Jelgava	No accurate information	
6	Jekabpils	Administrative department	No
7	Krāslavas novads	No accurate information	
8	Madonas novads	Unit of Finance	No
9	Rezekne	Council chairman	Yes
10	Rīga	Council chairman	Yes
11	Salaspils novads	No accurate information	
12	Talsu novads	Deputy of Council chairman	Yes
13	Valmiera	Council chairman	Yes
14	Adazu novads	Council chairman	Yes
15	Liepāja	No accurate information	
16	Ventspils	Finance unit	No
17	Jurmala	Council chairman	Yes
18	Tukuma novads	Finance unit	No

* on January 2012 in Ventspils is one internal audit staff unit vacancy

Source: Author's construction based on research data



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After summarizing data from this research authors comes to conclusions that there are some questions for future author's researches – it is quite important to analyze number of the staff in the local government, internal audit function size and number of enterprises with local government share capital which are significant indicators from author's point of view, it is quite important to understand what kind of methodology use internal auditors in local governments.

It is necessary to define criterions in further researches for internal audit implementation in local governments.

Conclusions and Proposals

1. At the beginning of the year 2012 internal audit has been organized and is working just in 19 out of 119 local governments in Latvia.
2. It is necessary to introduce mandatory requirement in the legislative acts about foundation of internal audit and size of internal audit unit in local governments accordingly to the criterions of local government income, expenses criteria per capita.
3. Just in 10 local Latvia governments out of 18 internal audit positions was founded according to International Internal Audit Standards.
4. It is quite important to analyze number of the internal audit function size in the local governments and number of enterprises with local government share capital and it is quite important to understand what kind of methodology use internal auditors in local governments in further researches.

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INNOVATION AND TECHNOLOGICAL CATCH UP: WHAT SHOULD WE LEARN EMERGING ECONOMIES FROM THE EUROPEAN EXPERIENCE?

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Keywords: Development economics, Economics of innovation, Economics of knowledge, Technological Diffusion, Convergence and catch-up process

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Abstract

The last ten years European Union experienced an uneven technological catch up process, which enabled latecomers to use advanced technologies and innovations without incurring high research development spending, and with large disparities in their innovation performance. Developing countries have already followed this movement, as the Eastern Asian experience proved. This evolution could be accelerated by the implementation of user innovation, which will bend it to the needs of the developing countries population. But it requires the development of technological and social capabilities, and the reinforcement of national innovation systems that will allow these countries to upgrade their innovation performance.

I. Introduction

At first studied in a macroeconomic framework, the analysis of economic convergence and technological catch up had experienced recent advances, from a theoretical and an empirical point of view. It followed the tradition of historical works initiated by Gerschenkron (1962) and Abramovitz (1986), from the study of the XIXth century European experience to the contemporary experience of Asian emerging countries (Shin (1996), Chang (2002)). These studies prove that the macroeconomic convergence needs a complete set of institutional factors, summing up in the term of “social capabilities” and “technological capabilities”, while recent works in the field of the economics of innovation proves that the intensification of growth in knowledge leads to an acceleration of technological diffusion towards emerging countries (Keller, 2004). This acceleration brings about a sharp rise in the rate of total factor productivity growth in these countries, far more important than the effect of the rise in capital intensity can explain. From this point of view it is worthwhile to point out that both the World Bank and UNIDO focus recent reports on this issue, namely in the World Bank report on technological diffusion (World Bank, 2008) and on the UNIDO report on the industrialization strategy towards the “bottom billion” (UNIDO, 2009).



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From this point of view, the European Union has been an exceptional experimentation field: it has recently known an uneven technological catch up process, with its progressive enlargement to the countries of Southern, then Central and Oriental Europe. One of the main advantages of this experience is that it benefits from a complete statistical Survey, with the European Innovation Survey (CIS1 to 4) and the European Innovation Scoreboard (2010). The aim of this paper is to present and discuss some recent results obtained in this field in Europe, and to discuss the question of the catch up process in the developing countries.

This paper will also refer to two main new trends in the economics of innovation. Firstly, as the process of technological diffusion is becoming more complex, it concerns not only its producers, but also its users (Von Hippel, 2005). That means innovation process needs to promote innovation users, who have the ability to modify an existing product or process, or to create a new use for it. This kind of innovation has been encouraged by the development of the Information and communication technologies, as the experience of FOSSS proved. While this kind of innovation appeared for a first time in the more advanced countries, it is a challenge that the emerging countries will have to cope with. It is an important way to appropriate new technologies that emerging countries should promote, in order to adapt technologies to their needs and even adopt a leapfrogging innovation strategy.

The second recent evolution, which matches the first, concerns the acceleration of knowledge spillover, which concerns firms and countries. In the advanced countries, a significant part of innovative firms doesn't run any RD activities, while developing countries experience a rise in their total factor productivity with a low, even null, level of R&D spending. This evolution concerns, not only industry and services, but also traditional sectors like fishing or agriculture, which benefits of a kind of "digital provide" using ICT. All these facts are linked to the existence of technological spillovers but as in the Gerschenkron approach they require some technological capabilities. In the Kaplinski and alii words (Kaplinski and alii, 2009), innovation in the developing countries should become "below the radar", and be devoted to the satisfaction of their needs rather than adapting or copying the way of life of advanced countries.

In order to take into account of this new development in the technological diffusion and innovation process, we will at first detail some facts and results about the European experience using the CIS and European Innovation Scoreboard We will thereafter discuss some open questions asked by the technological catch up of developing countries, regarding their ability to improve their technological and social capabilities, to build up their own national innovation systems, and to promote their own innovation users.

II. The Dynamics of Innovation and Technological Catch Up: Some Results of the European Experience

II.1. A Fast Convergence Process, with Large Disparities in Innovation Performance

Over the past thirty years the European Union experienced an exceptional historical convergence process which concerned at first the Southern European countries, and after the Central and Oriental European countries. From this point of view the Lisboa Strategy aiming a ratio of 3% of the GDP devoted to R&D by 2010 was doomed to fail since the first millennium decade saw the integration of low RD level countries, lower than 0.5% of their GDP, which exert a negative effect on the aggregated data.



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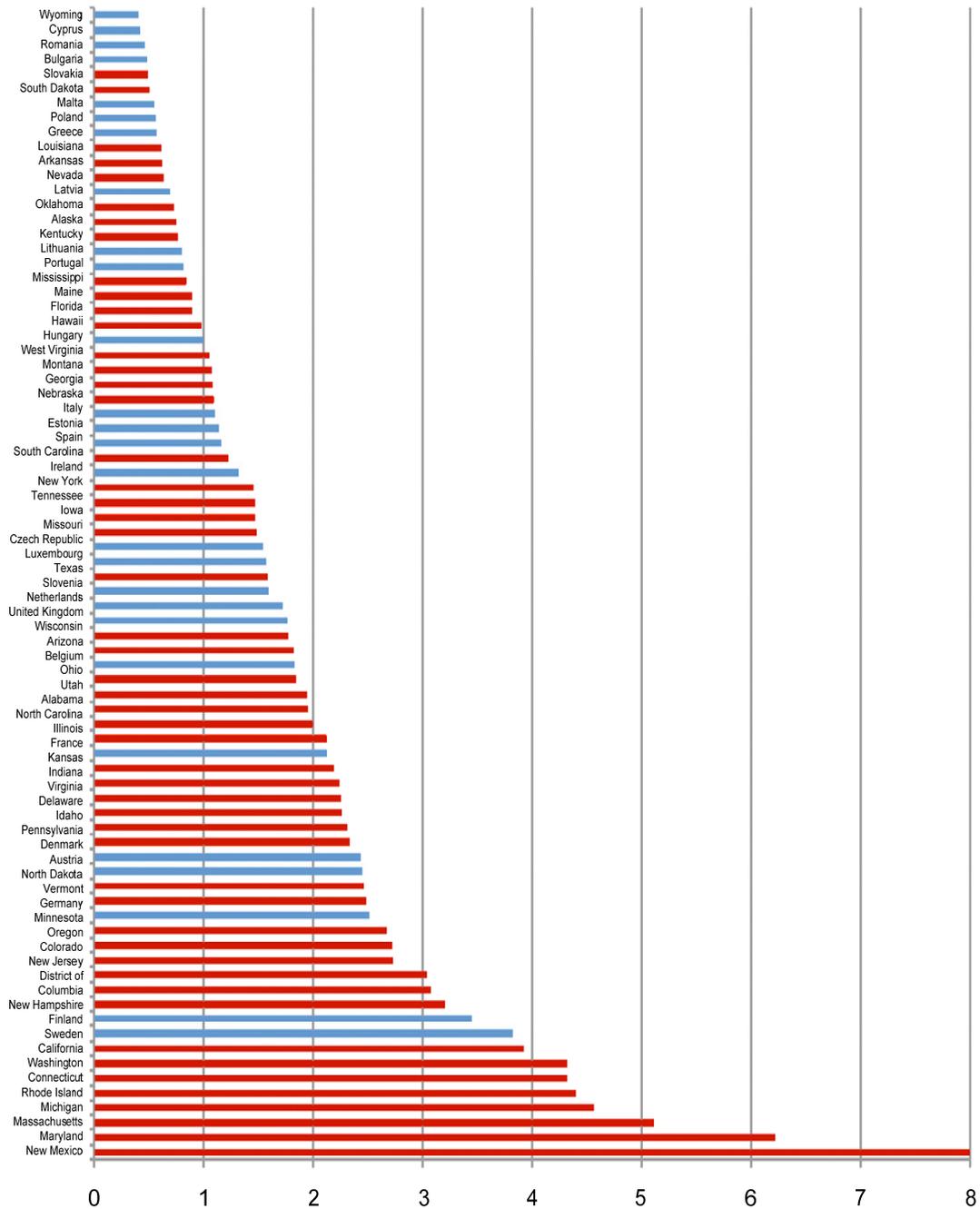


Figure 1. R&D intensity of US Federal States (2004) and EU Members states (2006)

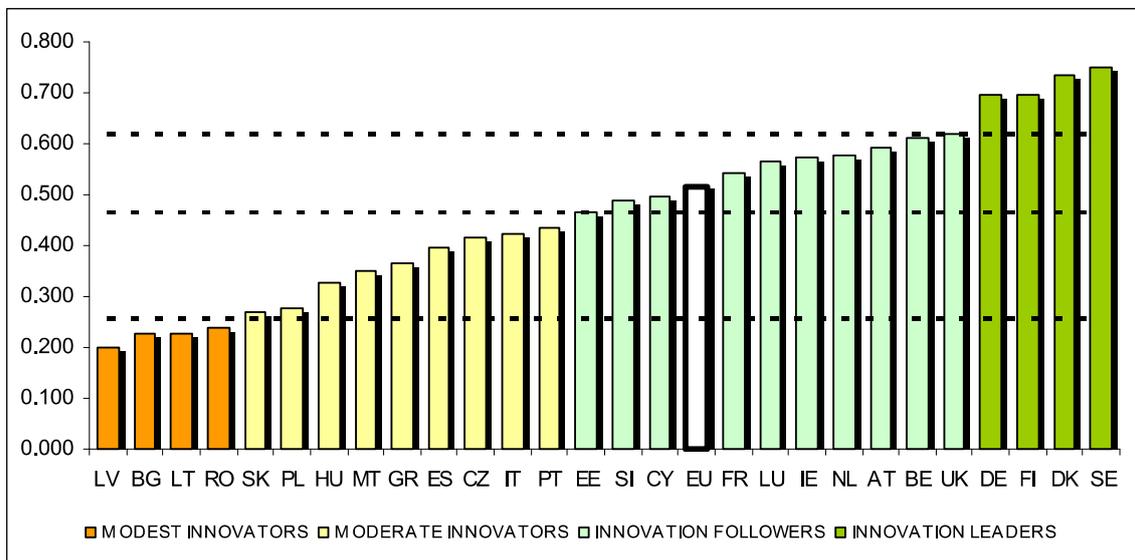
Source: Van Pottelsberghe, 2008



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Comparing Europe to more homogeneous countries like Japan or USA is, from this point of view, nonsensical. The alleged R&D gap is decreasing when the European States performance in this field is detailed. It has been done by Van Pottelsberghe, who compared the R&D performance between the European and the American Federal states: if some “high tech” American federal states obtained far better result than the European ones, the ranking between the two geographical areas is quite mixed, for example the Scandinavian countries appear in the top group of this ranking. (Van Pottelsberghe, 2008). On the contrary, latecomers in the European Union, which shows very low level of R&D spending, are close in this field to some rural area.



Note: Average performance is measured using a composite indicator building on data for 24 indicators going from a lowest possible performance of 0 to a maximum possible performance of 1. Average performance in 2010 reflects in 2008/2009 due to a lag in data availability.

The performance of Innovation leaders is 20% or more above that of the EU27; of Innovation followers it is less than 20% above but more than 10% below that of the EU27; of Moderate innovators it is less than 10% below but more than 50% below that of the EU27; and for Modest innovators it is below 50% that of the EU27.

Figure 2. EU Member States Innovation Performance

The large disparities between European countries innovation performance are confirmed by the four CIS studies over the last ten years, and the European Innovation Scoreboard, now Innovation Union Scoreboard (IUS, Innometrics, 2011). This Scoreboard ranks the European countries according to an index of Innovation Performance, build up from 29 indicators, in four main categories: innovation enablers, firm activities and innovation output, lead to a clustering in four groups, namely the innovation leaders, (dark green), the innovation followers (light green), the moderate innovators (yellow) and the modest innovators (previously catch up countries, orange). As it could be guess, this ranking is close,

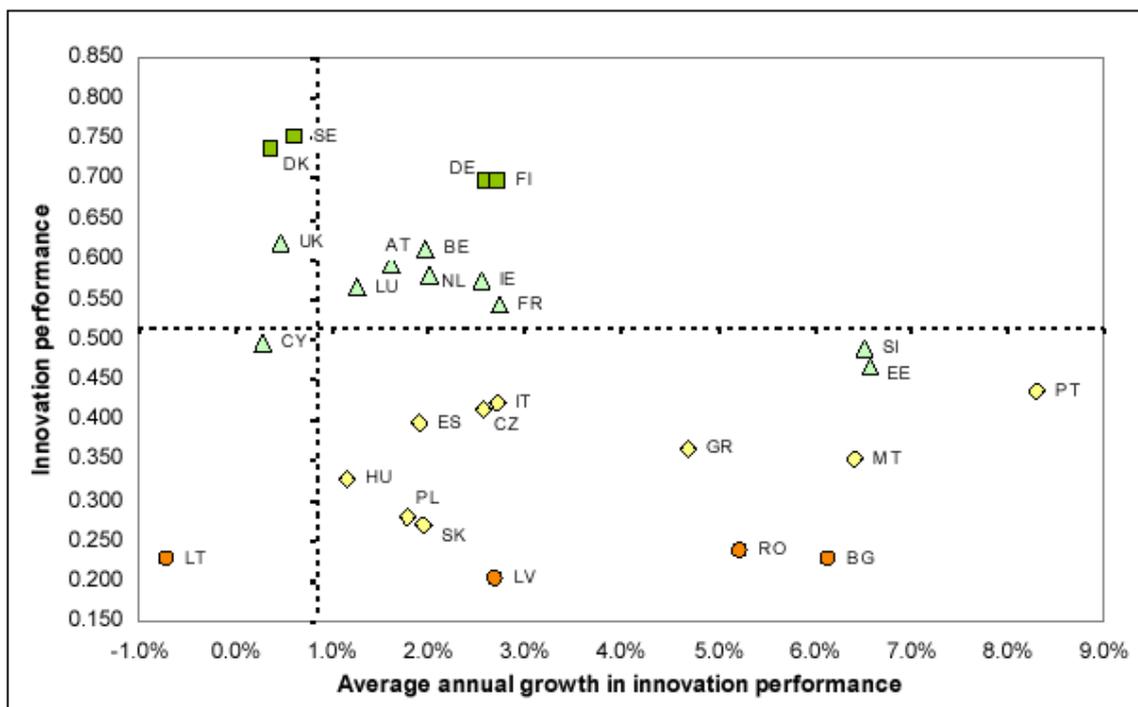


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but not similar to that of R&D intensity. For example, Germany, with a R&D intensity close to that of France, belongs to the group of Innovation leaders, while France appears in a lower position in the innovation follower group. On the bottom of the innovation performance index it can be seen that some newcomers in the Europe Union are ranked in a better position than their R&D intensity let guess.

As one can check on the following figure, which plots the growth rate and level of each country innovation performance, a convergence process is in progress: level and growth rate are inversely related, with important divergences between countries in each group. For each category we can find countries with slow, moderate or fast growth. It is worthwhile to note that the largest disparities appear on the modest (round, orange) and moderate innovator (diamond shaped, light yellow) countries, which means that the performances of each national innovation systems are quite different. For example Hungary and Romania, which have close innovation performance level, show an important gap in their growth, in favour of the latter.



Note: Colour coding matches the groups of countries identified in Section 3.1. Average annual growth rates as calculated over a five-year period. The dotted lines show EU27 performance and growth.

Figure 3. Convergence in Innovation performance



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Table 1

Innovation growth leaders

Group	Growth rate	Growth leaders	Moderate growers	Slow growers
Innovation leaders	1.6%	Finland (FI), Germany (DE)		Denmark (DK), Sweden (SE)
Innovation followers	2.6%	Estonia (EE), Slovenia (SI)	Austria (AT), Belgium (BE), France (FR), Ireland (IE), Luxembourg (LU), Netherlands (NL)	Cyprus (CY), United Kingdom (UK)
Moderate innovators	3.5%	Malta (MT), Portugal (PT)	Czech Republic (CZ), Greece (GR), Hungary (HU), Italy (IT), Poland (PL), Slovakia (SK), Spain (ES)	
Modest innovators	3.3%	Bulgaria (BG), Romania (RO)	Latvia (LV)	Lithuania (LT)

Note: Average annual growth rates as calculated over a five-year period.

Source: Innovation Union Scoreboard 2010, Innometrics, 2011

II.2. Innovation Performance and Catch Up Process

As we have seen, evaluating the performance of national innovation systems is not an easy thing to do. Some studies tried to evaluate the performance of the national innovation systems using CIS surveys, and their results converge with the Innovation Union Scoreboard. Edqvist and Zabala found that catch up countries perform better in process innovation rather than product innovation, and in services activities. (Edqvist et Zabala (2009). Another study on the South, Central and Eastern Europe proves that the investment in the knowledge industries is weaker than in Western Europe, even when the sectoral structure of these countries is taken into account. (J. Meriküll, R. Eamets, U. Varblane, (2009).

In the field of Innovation, the situation is comparable to that of macroeconomic convergence models: the relative performance of catch up countries is higher than that of more advanced countries (Edqvist et Hommen (2008). With a low investment in knowledge activities, it is not surprising that they got a higher return than countries with higher input level in knowledge. A recent study on the efficiency of R&D spending carried out on European data confirms this point (Harfi et Mathieu (2009). The authors rank the countries according to an efficiency index calculated according to a technical efficiency model that links the RD input to their innovation capacity. This capacity is measured by their ability to create new products for the market (product innovation), or for the enterprise (imitation): we can check that the performance ranking of countries doesn't fit their level of R&D investment. For example, Romania which invests less than 0.5% of its GDP in R&D is 5th in Innovation and 7th in imitation (on 17 countries) in technical efficiency term, as Poland and Estonia whose results are far better than their R&D investment let us guess.



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Table 2

Mesure de l'efficace technique par pays

Pays	Effort de R&D en % du PIP	Imitation		Innovation		Global	
		%	Rang	%	Rang	%	Rang
Allemagne	Plus de 2%	68.91	3	67.54	4	74.30	2
France		66.40	10	67.83	3	72.06	4
Suède		69.59	1	69.48	1	74.50	1
Belgique	Cornpris entre 1.5 et 2%	64.57	13	62.33	12	70.12	12
Norvège		63.20	15	61.02	15	68.31	16
Pays-Bas		68.99	2	67.98	2	73.35	3
Espagne	Cornpris entre 1 et 1.5%	66.92	9	62.27	13	70.25	11
Italie		67.02	8	64.95	8	71.67	6
Tchéquie		67.42	6	64.79	9	71.32	7
Bulgarie	Cornpris entre 1 et 0.5%	60.46	17	61.85	14	69.64	14
Estonie		64.93	12	65.56	5	70.78	10
Hongrie		61.77	16	63.69	11	69.63	15
Lituanie		63.91	14	59.41	16	69.66	13
Pologne		68.21	4	65.38	6	71.31	8
Portugal		65.36	11	64.44	10	71.79	5
Chypre	Moins de 0.5%	67.21	7	51.39	17	64.86	17
Roumanie		67.71	5	65.08	7	71.22	9

Source: Harfi et Mathieu (2009)

Table 3

Ranking of the CEECCA Countries by Innovation Activities

				GDPpc 2003	GDPpc 2007
Innovation Weak	11	Little BUY – No MAKE	Tajikistan, Kyrgyzstan, Serbia, Bosnia, Macedonia	20.7	21.6
	12	Some BUY – No MAKE	Azerbaijan, Mongolia, Moldova, Kazakhstan, Romania, Armenia, Bulgaria	22.7	27.4
Innovation Active	13	Mostly BUY – Little MAKE	Latvia, Poland	53.6	62.1
	14	BUY – MAKE	Slovakia, Lithuania, Hungary, Estonia, Turkey, Croatia, Ukraine, Russia	53.2	58.6
	15	BUY – MORE MAKE	Slovenia, Czech Republic	92.2	94.5

Note: GDPpc is expressed as gap relative to maximum GDPpc in the CEECCA group, i.e. Slovenia. Value are subgroup unweighted averages.

Source: R. Veugelers, Assessing the potential for knowledge-based development in transition countries, Bruegel Working Paper 2010/01

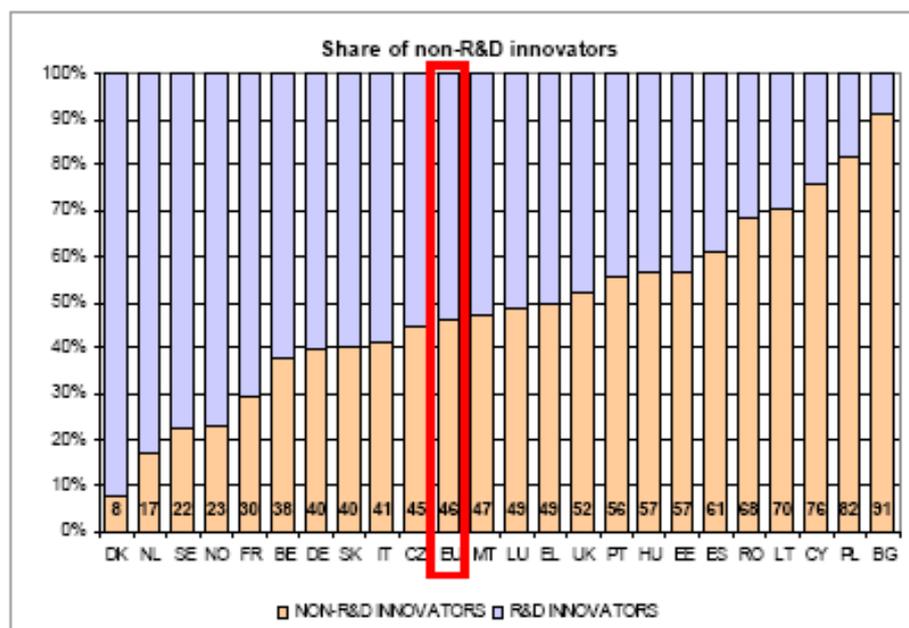


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Another recent research confirms these results, since in a rather more pessimistic manner (Veugelers, 2010). Using a large panel data over 24 countries from Central and Eastern Europe, the Caucasus and Central Asia (CEECCA) countries, it tries to test their ability to develop a knowledge based growth path or to have the potential to develop in the near future. All these CEECCA Countries can be clustered according to their ability to “buy”, or to “make” new technologies: it can be checked that some of modest innovators belongs rather to the first rather to the second category, while most of the newcomers in The European Union belongs to the category of Innovation active countries.

An important point is related to the existence of innovative firms without RD, or “non RD Innovators”. All the Innovation surveys show that a significant proportion of firms (around one on two) belong to this category. The share of the non RD innovative firms decreases with this innovation performance, as shown on the following figure (Figure 4): while this share reaches a 80-90% value in catch up countries like Romania or Bulgaria, it falls to a level lower than 20% in Sweden, Nederland or Denmark. Improving the innovative capacity of a country needs to increase sharply its business funded spending, in order to go over the step of simple adoption/adaptation of technologies coming from external sources.



Note: Results based on CIS-4 data. R&D innovators are defined as all innovators performing in house or intramural R&D. Non-R&D innovators innovate by acquiring or by buying extramural R&D (i.e. R&D performed by other companies or research organisations), by buying advanced machinery, equipment and computer hardware or software, by buying or licensing patents and non-patented inventions, by training their personnel, or by spending resources on the design and market introduction of new goods or services.

Figure 4. Share of innovators not performing R&D

Source: European Innovation Scoreboard 2008



III. How Does the National Innovation Systems of Developing Countries Perform?

Studies of the developing national innovation systems are still at an early stage, mainly because of the lack of data, except the case of the industrialization of East Asia, which has been widely documented, especially in the Korean case (Kim, (1980) (1997) Shin (1996). Nevertheless, recent studies have been realized, using innovation surveys with the CIS methodology.

III.1. Some Early Results on Developing Countries

A first comprehensive survey have been made by Bogliacino and others (Bogliacino et alii, 2010), which covers Latin America, Eastern Asia, Central and Oriental Europe, Russia, and Africa. Despite some comparability and measurement problems, some main features appear. When compared with European Union firms, which are used as benchmark, developing innovating firms have a slightly lower innovation capacity, as measured by the part of turnover in new products. Even when these countries results are close to the European ones (like Eastern Asia), most of these innovations concern new products to the firms. When considering the means devoted to innovation the gap within the European Union is deepening, this gap being mainly measured by the share of R&D spending in GDP. We find the same characteristics observed within the European Union: disparities are more important in means than in results of the innovation. Indeed, these disparities are diminishing sharply on recent years: countries like China, Brazil or Turkey having figures that will allow them to belong to the group of moderate innovators in the EIS terms. More detailed results have been obtained by recent studies on the mediterranean countries (Marocco, Tunisia) (Rigas et Hatem, 2008, Ayadi., Rahmouni, Yildizoglu, 2009), using innovation survey data. They prove that the main sources of innovation are external to the firms and to the countries themselves, and that the most innovative firms are working on both the domestic and foreign market, on the contrary of “purely” exporting or domestic firms which perform poorly in this field.

More aggregated results have been obtained by Fagerberg et Srholec (2008), who used 25 main indicators on technological development and governance of 115 countries between 1992 et 2004. They run a principal component analysis on these data, in order to explain the level of GDP. The idea was to find some composite common factor which will explain the variability of the whole set of data. So doing they found 4 composite factors, corresponding to the score of the countries on innovation system, on their governance, on the political system and on the openness of the economies. The explanatory power of each factor is decreasing: the fist factor, which includes several indicators, linked to the technological capabilities of the countries (patenting, publications, ICT infrastructure, ISO 9000 certification and access to finance), is the most significant and gets a correlation coefficient of 86% along a simple regression.

The second factor includes governance variables like the respect of property rights, the working of the judicial system, the presence of corruption and of a good business climate. Although still significant, the relation with economic development is weaker than that of the innovation factor, with a correlation coefficient of 52%.

On the contrary, the last two factors perform badly: the “political system” factor, that ranks countries on a scale rising with their proximity with a western representative democracy, has a weak explanatory power. It is not surprising when considering the economic success of



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some authoritarian political regimes. Lastly, the fourth factor, closely linked to FDI and import, reflects the openness level of the countries and is not correlated with their level of development, even when countries sizes is controlled. It is worthwhile to underline that these results, obtained on recent data, confirms the intuition of the historical literature on convergence: the first two factors can be considered as some proxies of their “technological capabilities” and “the social capabilities”.

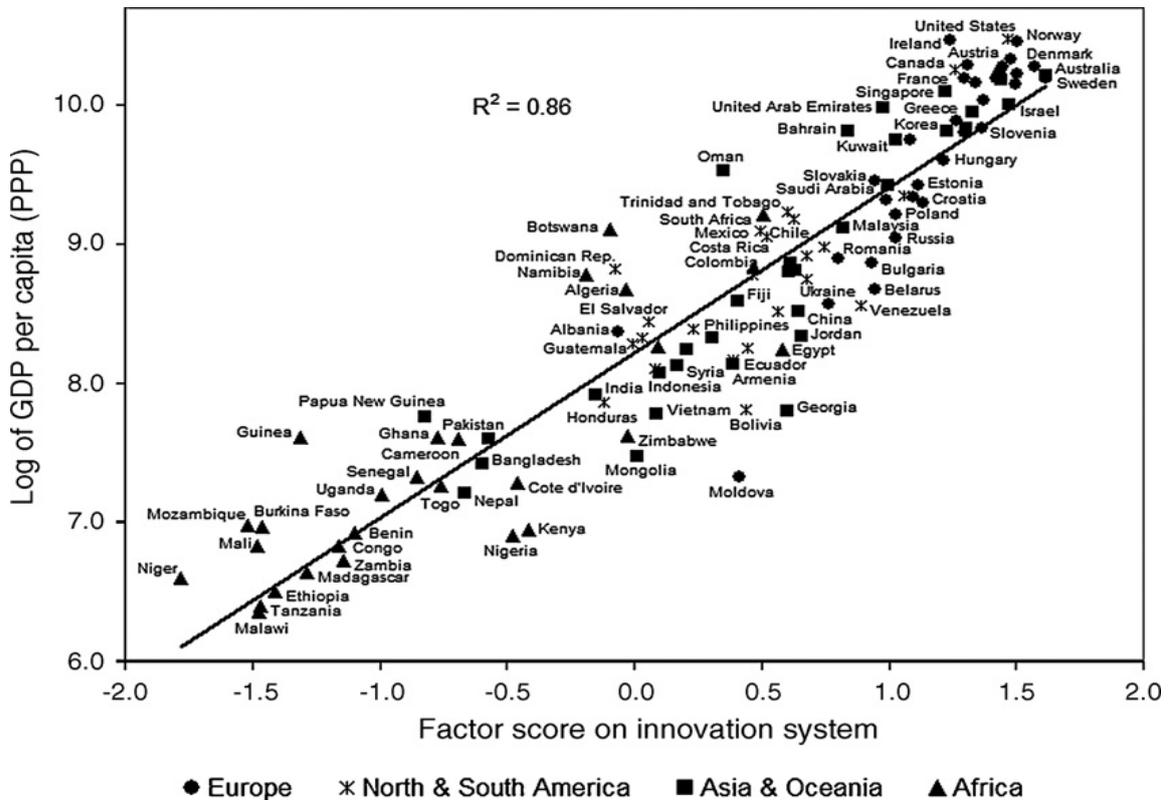


Figure 5. Factor score on innovation system and level of GDP

Source: Faberger and Shrolec, 2008

III.2. The example of South Mediterranean countries Innovation systems

If South Mediterranean Countries belong to the group of modest and even moderate innovators for some of them, they exhibit unequal performances in this field. Some recent studies have been recently realized, mainly on Morocco, Tunisia and Turkey, while some specific programs have been promoted by the European Union within the Barcelona process (ESTIME project), or by the World Bank (JE Aubert and JL Reiffers (2002)). Their results allow to characterize the national innovation systems and to help them to improve their performance. According to the AMINA network (animaweb.com), which promotes innovation



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systems in Mediterranean countries, these countries devote few means to R&D, with a share of between 0.3 and 1% of their GDP, while their innovations come mainly from foreign sources. These sources are European in Turkey and Maghreb countries, and more diversified in the Middle East Countries, except Israël where the American investment is dominant.

A first study have been realized in Tunisia, using an Innovation Survey (Ayadi., Rahmouni, Yildizoglu, 2009). It proved that product innovation are motivated by the necessity to diversify products, while process innovation are more driven by quality and flexibility requirements. Two more results are worthwhile: on one hand a negative relation is obtained between the public share of capital and their innovative propensity, which could be the sign of the failing governance of public owned companies. On the other hand openness has an ambiguous role: the most innovative firms are working on both domestic and foreign markets, contrary to the purely domestic or exporting firms which perform badly.

Marocco on its side had already set up an innovation survey, following an R&D survey. It shows an increase in the proportion of Innovative firms between 1999 and 2005, from 29 to 42%, while the share of firm performing some R&D rise from 9 to 23%, a figure similar to the Tunisian one (Rigas and Hatem, 2008). Another recurring problem concerns the working of the national innovation systems, still in an infant stage: most of the firms don't know the existence of national innovation support schemes, and links between the universities and enterprises are still weak.

IV. New Channels for New National Innovation Systems?

The rise of an intensive knowledge economy leads to a double evolution: while the more advanced countries invest in high technologies in order to be on the edge of the technological frontier, catch up countries benefit from this effort in following strategies of adoption/adaptation of technologies. Succeeding in this strategy depends on their ability to adopt these technologies, to adapt them to their needs, and to promote their own national innovation system. It is clearly a key challenge for developing countries.

IV.1. Developing Countries Need Innovation Users

According to the pioneering approach of E. Von Hippel, innovation process concerns, not only its producers, but more and more its users, who are a major source of innovation product and process (Von Hippel, 1998). The development of these innovations has been boosted by the Information and Communication techniques, but it raises one question. According to Von Hippel, (Von Hippel, 2005) it will help to democratize innovation, but it is a controversial point. In fact this new innovation pattern first appeared in the more advanced countries, with an important population of high skilled "lead users", fond of new technologies and able to master and transform them. Most of the recent works on Innovation users have been done in these countries, mainly in Canada (Gault et Von Hippel, (2009)), Nederland (de Jong and Von Hippel (2008), de Jong and Von Hippel (2009)) and in Europe (Flowers, Sinozic, Patel, (2009)). This last study, using the 2009 European Innovation Scoreboard is the most extensive ever. It draws a distinction between three kinds of Innovation users, named "User process Innovation", "Innovation Product Innovation", and "Involver Innovation". While the first two cover the well-known categories of innovation, the third appears when a firm decides to associate its product



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users to the evolution of their product. According to this study, User innovation is more developed in large firms (more than 250 and 500 employees) than in small and medium sized firms, with a slightly prevalence in middle and high technology industries. All industries are evenly concerned by this kind of Innovation. When the comparison is done between countries, User innovation is more widespread in the innovation leaders, even if the observed disparities between countries categories are rather small. On the average, in the European Union, 30.3% of firms are User process innovators, 27% innovation product innovators, and 53.1% involver innovators, a higher proportion than observed on former studies, where it reach the average of 20% of the Innovative firms.

So the main results obtained in this field prove that the firms and countries that have the highest capability to produce innovation are the most able to use it. It shouldn't be surprising: it means that innovation production and use are more complementary than substitute. Flowers go so far as calling the innovation users as "super innovators", which have to be promoted by innovation policies ¹(Flowers and alii, op. cit., 2009).

IV.2. How to Improve the "Below the Radar Innovation" (Kaplinsky et alii, 2010)?

For the developing countries, promoting innovation users is a key challenge. It is important to point out that if this issue has not been well studied in these countries, it does not mean it doesn't appear. In fact, the development of ITC in the traditional sectors like agriculture and fishing (Galiègue, 2009, Jensen, 2008) can be considered as an innovation User strategy, as in a broader sense most of the strategy of technological adoption/adaptation. Others facts and arguments can be used to support this idea. As Kaplinski and alii argue, innovation should be bend to meet the needs of developing countries, and become, according to their term, "below the radar" (Kaplinski and alii, 2010). Firstly it is important to point out that the R&D expenditures of developing countries have reached significant levels: from 2% in 1990, they reached more than 20% in 2000 of the total world spending, if we count all the spending outside the Triad (Japan, USA, and Europe). So developing countries have already the technology capabilities and innovation capacity to change its pattern. A second important point is related to the change of localization of production: most of the world industrial production is now realized in developing countries, and their demand for adapted products and technology is rising. As the innovation capacity of developing countries has been created in major exporters of manufactured goods (China) or services (India), they need to follow the demand of the most growing demand potential, which is in other developing countries. As Kaplinski and others claim that developing countries should accompany and accelerate this evolution, by promoting their own innovation systems. In another words, it is necessary to promote the production and use of innovation in these countries, in making their producers and consumers new lead users. Some recent examples of this evolution, mainly in ITC, Health care and Pharmacy are given by Kaplinski. But it is important to point out that innovation policy, as the action of NGO, should be the key drivers of such a "pro poor" innovation strategy.

¹ Let's point out that the first Free Open Source Software (FOSS) appeared in the community of computer "geeks" coming from University or computing company of the more advanced countries. Even the Ubuntu software, although born in Africa (South Africa), owes his success to its adoption in advanced countries.



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IV. Conclusion

In this survey we state that, if a catch up process is well under way in a growing number of developing countries, it is basically because these countries have been able to develop their own technological and social capabilities, which allow them to adopt external technology at a low cost. But if these countries want to go further in the process of technological appropriation, they need to build up their own innovation system. As seen on the case of south Mediterranean countries, these national innovation systems are still in an infant stage and should tighten the links between Universities, public policy and institutions, and enterprises. They should also promote innovation users, who will have the ability to find use of products adapted to the needs of their enterprises and population. It is one vital condition to upgrade their innovation performance, and turn the innovations to the satisfaction of their own needs.

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CERTIFICATION OF COMPLIANCE MANAGEMENT SYSTEMS AND COMPLIANCE PERSONNEL

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Abstract

Compliance Management Systems vary widely in content, approach and aims. Legal requirements such as the Foreign Corrupt Practices Act, national legislation etc. exist, but there is no norm such as an industry or quality norm to which companies have to obey yet. Moral norms are necessary as precondition for Compliance Management Systems [1]. Nevertheless certifications are developed. Considering the development of certifications for public organizations such as hospitals, schools, but also private companies in the area of for example environmental, health and security standards or ISO norms a standardized profile could be helpful to reach a minimum level of Compliance Management requirements for organizations.

Business organizations and especially audit companies set standards [2]. These need independent evaluation to judge on their pertinence. Similarly the evaluation of Compliance officers or managers who work with and in Compliance Management Systems and who stem from a variety of functions needs a framework. A legal background is not mandatory for the function of a Compliance officer or manager, but often found as legal personnel knows about laws and the legal consequences of wrong business conduct. Furthermore a business understanding is indispensable to guarantee successful Compliance Management.

This work elaborates which kinds of certifications are available and evaluates their quality. It discusses the content of Compliance Management Systems certifications and the aims which are addressed.

Introduction

In the following the terms “certification” and “certificate” are used synonymously. Certificates normally give assurance to the person or organization who/which requests the certificate, but also to the public who is interested to know whether certain standards are met. This assurance might refer to the question if regulatory requirements are met. If technical products are bought for example, a certificate guarantees performance, endurance, security etc.

The end customer as well as businesses are used to a variety of certificates. Not all of them are mandatory and several are used as competitive advantage by the companies.



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In the context of business science researching corporate business conduct, Compliance standards could be defined as minimum profile of a certification. In the context of a Compliance certification relevant stakeholders would have to agree on such a certification to enable a unified approach.

Scope and Definition

There are a number of certificates available which have as aim the confirmation of compliance with specific legal directives as for example concerning dangerous raw materials, technical specifications, health and safety requirements.

In the context of this paper a Compliance certificate refers to the topic anti-corruption or anti-fraud, not to be confused with other definitions of the term Compliance. The certification of Compliance Management Systems is a certification which evaluates a Compliance Management System that is already operating. Therefore an operating Compliance Management System is a precondition for a certification.

Certifying Organizations

A compliance certificate must be issued by an authority which has the competence to judge whether installed systems, projects, programs etc. meet the requirements.

The following list gives a list of authorities which operate as service providers:

- Audit companies, as for example PWC (Price Waterhouse Coopers) or Deloitte;
- TÜV, Club for technical supervision (Technischer Überwachungsdienst);
- OCEG, Club dealing with Compliance and Ethics (Open Compliance and Ethics Group);
- IDW, German Institute of Auditors (Institut der Wirtschaftsprüfer);
- NGOs, as for example Transparency International;
- ISO, International Organization for Standardization;
- Risk Compliance Association;
- Sheshunoff Information Services.

Accreditation organizations guarantee the independence of the certifying organizations. The IDW as accreditation organization regulates that all audit companies which are members of the IDW follow the same standard. Independent authorities such as the International Organization for Standardization (ISO) can be seen as optimal choice in terms of independence and also worldwide recognition. It publishes standards which are equal on a global level and which are tested by approved partners. "An ISO International Standard represents a global consensus on the state of the art in the subject of that standard." [3] This self applied mission also shows the challenge of establishing a world-wide valid standard. Different perspectives as well as cultural influences may make it difficult to reach a global standard. For the time being an ISO standard has not been defined.

Not all of the mentioned authorities issue certificates. Several of them offer tools for assessing Compliance activities in organizations, but in the context of this work only those which provide certifications are considered.



Organizational Compliance Certificates

Organizational Compliance refers to how Compliance is embedded in the organization and how the Compliance organization is doing their job. Scientific research shows that in business a need for Compliance frameworks exists. A study on Compliance and competition comes to the conclusion that these frameworks were neglected: “Respondents were concerned about their lack of systems to proactively manage compliance in such a strategic way that compliance activities could be leveraged to deepen or sustain competitive positioning (whether cost or values based).” [4]

A Compliance certification manifests how a Compliance Management System is implemented. Whenever issuing certificates the maturity level of Compliance within an organization has to be taken into account. A newly introduced Compliance Organization should not be certified before operations start as only with the daily business activities a judgment of the Compliance scope is possible.

But even with existing functions the timing of the certification is crucial. Often a Compliance function is started with a central team which has worldwide responsibility. Over a longer period of time and with the maturity of the function an expansion with shared responsibility in decentralized functions takes place. The exception is the occurrence of Compliance cases such as corruption or fraud which lead to a development which is accelerated [5].

Deriving from the organizational life-cycle of a Compliance organization, applying a time line, it can be approximated when certificates are useful.

Straight after a serious corruption crisis when a Compliance Program is introduced, a certification seems to be premature. The organization must be stable with installed processes if a certification is meant to be successful.

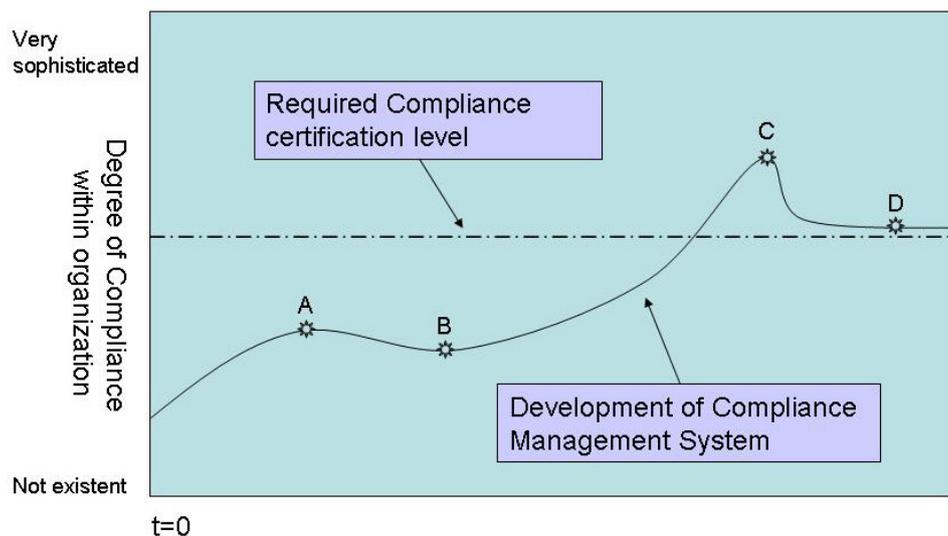


Figure 1. Time aspects concerning certifications of Compliance Management Systems

Source: Own depiction



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The timing for certifications of processes in an organization should be planned well ahead as normally a lot of preparation work is necessary. Even if all preparation work has been done, the success of a certification process is not guaranteed. In the following the development of a Compliance Management System with time aspects is depicted. As the time duration is not firm, but scalable, only the beginning point has been marked ($t=0$).

The graph shows a typical development of a Compliance Management System and the expansion of its scope over a period of time.

At a given point of time ($t=0$) the degree of Compliance within the organization is evaluated. In the depicted exemplary scenario the degree is existent, but it is rather low. The theoretical development shows that the implementation of Compliance takes place, although the development varies. (A) shows a slight decrease caused by internal focus on other topics in the organization, (B) depicts the refocus on Compliance activities which might be the decision to participate in a certification program.

The graph shows that the Compliance function should be adequately implemented in the business and sufficiently stabilized before a certification can be reached. An application in (A) or (B) would lead to failure. Excessive Compliance activities depicted in (C) which bring little value-add should be avoided. They do not harm the certification process, but if the certification is seen as the optimum reachable, an alignment should take place which postulates a cost-benefit-maximization almost reached in (D).

A basic differentiation has to be made between internal and external certifications. Companies applying Compliance Systems successfully normally strive for certification processes. Whether this certification process is internally or externally is open for discussion. As long as an independent assessment of a Compliance program is possible this can also be done internally as for example by the risk management or the audit function. The trustworthiness of external certifications may be higher, but an internal well documented certification procedure which gives the actors sufficient security can also be considered to be adequate.

Either internal or/and external auditors have to ensure that the installed Compliance Management System is appropriate and sustainable.

On an organizational level, different external Compliance certificates have been created. Their advantages and disadvantages will be discussed in the following paragraph.

Discussion of Available Certificates

Compliance Management Systems differ in quantity of their elements which are deployed, but also in the quality of their chosen elements. Typical elements like whistle-blower hotlines, training activities and financial controls are only a few of the possible elements which can be deployed.

The available standards which are analyzed take this variety into account. Analyzed are the following certifications:

1. Audit standard 980
2. OCEG Capability Certification / GRC Capability Certification
3. TÜV Compliance care standard
4. Sheshunoff Information Services Regulatory Compliance Certification Program



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1. Audit standard 980

The Audit standard 980 was issued by the Institute of Auditors in Germany. It was communicated as an answer to the articulated concerns from industry and their representatives concerning the Compliance in their organizations.

The Audit standard 980 was created as draft in 2010 and approved in its final version on the 11th of March 2011 by the Institute of Auditors. Its final version takes into account many remarks from scientists and practitioners alike. Its aim is to give a standard for the audit of a Compliance Management System in different stages. The audit standard does not have as an aim the detection of corruptive behavior of single persons, but the assurance that overall in the company a well working Compliance System has been implemented. Three stages are auditable: The conception of the Compliance Management System, the appropriateness of the Compliance Management System and the effectiveness of the Compliance Management System.

The standard is kept rather general, allowing for every organization to identify with it. In principal this is encouraging as individual requirements can be met. Every company or organization can decide for itself which risks and controls it wants to be embedded in its Compliance Management System. But it can lead to the fact that the postulated requirements are too far away from the daily operating procedures. It is necessary to define concrete requirements for the audit, otherwise it will be difficult to evaluate the Compliance Management System. This requirement for proximity to the business is not new: “In developing ‘best practices’ for the organisation, a useful start would be to convert these macro policies to the micro level. Thus for prevention, ‘sound legal and regulatory frameworks’ can mean clear rules and published policies, while ‘sound budgeting and financial management systems’ translates into transparent procurement rules. For disclosure, ‘putting effective watchdog institutions into place’ can mean having an ombudsperson or a hot-line facility to encourage intra-organisation reporting of suspected corrupt behaviour by colleagues. For sanctions, to ‘prosecute fraud and corruption when it occurs’ can mean a range of punishments from suspension and dismissal to the filing of criminal complaints.” [6]

Positive remarks: For the first time an independent standard has been created which in principle enables a comparison of different Compliance Management Systems. The standard leaves freedom for individual design of the Compliance Management System.

Negative remarks: The audit standard can be criticized as work of lobbyists pushing another business model for audit companies as the Institute of Auditors is also an interest group for the branch of auditors. It could be argued that comparison of audits applying the standard is hardly given as the auditors from different companies use diverging criteria in their assessment. This could be accepted as long as their evaluation is transparent and documented so that it can be understood by another party being not directly involved in the process.

2. OCEG Capability Certification / GRC Capability Certification

The Open Compliance and Ethics Group (OCEG) is a non-profit organization which supports organizations in so called “Principled Performance”. The mission of OCEG is to help “organizations align their governance, compliance and risk management activities to drive Principled Performance.” [7]

The organization offers a governance, risk management and compliance assessment (GRC) which can be used to determine the effectiveness of the installed system. The so called “GRC Capability Certification” is the result of this assessment. According to their own



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description “[t]he OCEG GRC Capability Assessment and Certification program is designed to be scalable to a review of individual risk-specific programs (i.e., anti-fraud program, privacy program, etc.), discrete business units, sub-capabilities (i.e., hotline, risk management, values management, training, etc.) or at an enterprise level.” [8]

OCEG offers two certifications, a design and a full certification. Similarly to audit companies approaches they offer a test of the implemented design of the Compliance function or with the full scope also the operating effectiveness of the designed system.

A four phase module was created for the certification process. It starts with the initial assessment, followed by the implementation of improvement projects. This leads to the phase of evaluation and finally the certification. It is important to note that OCEG is only involved in the last step, the certification. All activities which take place beforehand have to be dealt within the organization applying for certification itself and on an optional level by an external advisor.

Positive remarks: OCEG emphasizes its independency which is most important for a credible certification. The process of certification can be tailored to the needs of the organization. It is also remarkable that external advisors can be employed to enhance the process, but their employment is not mandatory. Therefore, this freedom is given to the management.

Negative remarks: A focus is put on “dressing up” to management and shareholders which should not be the motivation driving the certification process.

3. TÜV Compliance Care Standard

In its major function the Technischer Überwachungsverein (TÜV), a club for technical monitoring, oversees technical equipment. It is best known for certifications on cars which are mandatory every two years. In its independent function it tests for example household applications, but also car seats for children for example.

Positive remarks: The TÜV is an independent and well known organization in the public. The topic Compliance which is not known to the public in general could be communicated via a TÜV certification broadly.

Negative remarks: The knowledge and skills for a Compliance Management can be doubted as Compliance Management is no core competence of the organization. Therefore a certification might not meet best practice standards.

4. Sheshunoff Information Services Regulatory Compliance Certification Program

The Regulatory Compliance Certification Program offered by Sheshunoff and A.S. Pratt combines a company approach with an individual certification. An individual person being responsible for Compliance enrolls in the certification program, but the benefits are given to the organization which typically is a bank. The focus of the certification program is on the financial industry covering specific financial industry topics.

Five modules have to be completed before a certification is rendered, ranging from Lending Requirements over Deposit Disclosure and Interest Rate Requirements to Other laws and regulations [9].

Positive remarks: The approach to address a specific branch is innovative and most likely provides tailored information. The concept of coursework for individuals who pass an exam for each module and the idea that the course is done in the organization provides greatest flexibility to the participants of the certification process.



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Negative remarks: For a certification of a general Compliance program the Regulatory Compliance Certification Program is too specific.

Compliance Certifications for Individuals

Universities offer Master or MBA studies specializing in Compliance Management which have as an aim the formation of theoretical Compliance managers. If the skills taught pass the reality test is not yet decided. An experience in high-risk countries is not mandatory, although it would confront the individuals with moral dilemma which test the gained knowledge.

Whenever researching or talking to practitioners what the skills are which are needed from Compliance managers, it becomes obvious that the spectrum is far reaching and the requirements are very diverse: They reach from strict rule keeping, to enabling the business to conduct clean business, to train persons etc.

An employee Compliance certification does not mean a certification of an employee obeying to different rules laid out in the company, but it is a special certification for employees working as Compliance officers, managers etc.

In their daily work Compliance officers fulfill a wide range of tasks, as for example judging the quality of proposed third parties which might be involved as additional sales channel, evaluating the appropriateness of gifts and invitations which are made to externals or taken from externals, investigating allegations which were made from external sources or advising the management team and the employees on specific topics.

That is the reason why a general certification is difficult, as the scope of work differs a lot. Compliance certifications for individuals on the market tend to provide a general certification with the most common topics, as for example:

- Legal requirements;
- The Compliance Organization;
- Data protection;
- Antitrust;
- Communication;
- IT-Compliance.

Until now, there are several single certifications available, but no unified international standard. A certification similar to ISO Quality norms has not been developed yet, but also a legal requirement to certify is not given.

Furthermore it can be discussed whether companies influence the legislation beforehand as they set standards which might be adopted by legislation at a later stage.

In the following, two certifications available on the market are described and evaluated. The analysis of the certifications is conducted in the context of the broad scope the topic Compliance has.

1. Management Circle the Certified Compliance Officer

The organization Management Circle offers a certification program for individuals. It consists of a mandatory seminar which deals with the setup of a Compliance Organization.



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Additionally three out of six seminars must be chosen. The focus areas for the seminars are law, business crime and IT. The six seminars which can be chosen are:

1. Capital market Compliance
2. Antitrust Compliance
3. Anti-Corruption
4. Compliance with value management
5. Compliance & IT
6. Compliance Management with SAP

Positive remarks: The program gives an overview in a very short time frame. Participants interviewed like the overview and the combination of different aspects of the topic Compliance.

Negative remarks: A certification which can be acquired in five working days may not be sufficient to address all Compliance related challenges in a business environment. Therefore the quality of the certification can be doubted.

2. OCEG Individual Certification / GRC Professional Certification

The Open Ethic and Compliance Group does not only offer organizational certifications, but also certifications for individuals. The certification focuses on the areas governance, performance, risk, internal control and Compliance management.

Until now the Professional Certification is the cornerstone of the program. Other certifications are in the planning with a special focus on technology or audit.

Based on a competence profile and the analysis of skills, the organization offers a certification which does not focus on content topic as it is usually done with the other certifications, but which focuses on competencies groups, such as “Organize & Oversee”, “Assess & Align”, “Prevent & Promote”.

Positive remarks: The approach which is chosen by OCEG is remarkable, because skills are put in the focus. This paradigm differs from the usual approach, but it should also be useful for other functions.

Negative remarks: From a scientific point of view it is not clear whether the skills are theoretically founded and will be valid in a future period. To guarantee a future validity, a renewal concept has been developed [10]. The certification is valid for one year and has to be renewed after that period.

Conclusion

The challenge of the certification will be to make sure that the Compliance Management System will not become too bureaucratic as a certification process may lead to centralization. If an organization sets up a team which is responsible for the certification this will probably be done centrally. Furthermore the time frame should be considered relating to experiences which have already been gained:

“As with ISO certification, companies and government departments will generally require substantial preparation in order to qualify for certification. (...) Indeed, organizational efforts to transform lofty pronouncements of anti-corruption into practical systems of prevention, detection and sanction could revitalise staff member spirit as well as mission statements.” [11]



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Therefore certifications could also have a positive impact on the responsible persons for Compliance Management Systems.

The certifications of CMS or individuals should not be interpreted as risk avoidance or delegation of Compliance work from the management to the next hierarchy level. It can rather be seen as unified understanding of a base level of qualifications which have to be implemented. The tasks of a Compliance manager are too wide-spread to group them under the umbrella of one certification. Similarly to other functions as for example a CEO, a certification can not cover all tasks foreseen.

The desire for certificates stems from the insecurity due to the lack of knowledge, requirements which can not be met etc. Certifications are meant to build trust, but can also be used as strategic advantage for the organization. It might become the preferred supplier for business partners as they can rely on this certificate. The organization demonstrates that it obeys to external standards which it may also demand from its suppliers or other business partners. In this way, the start of an upward-spiral can occur.

A certification is a symbol that ethical behavior is valued as an important good knowing that the practical implementation is difficult to achieve: “What is clear is that the task of designing organizations to foster ethical behavior is not always a straightforward and simple one.” [12]

But it is worth completing the task. Especially in times where prosecutors fortify their efforts to find corruption cases a Compliance certification can be an advantage. In the USA for example “(...) the government has adopted a policy of being less likely to prosecute corporations that can demonstrate that, even though an employee paid a bribe, it had a meaningful compliance program in place, as benchmarked against industry best practice.” [13] If certifications reduce these prosecutions, one interesting area of future research would therefore be the impact of certifications on business management. In this regard the certification could bring a positive monetary effect for the organization.

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PSYCHOLOGICAL ASPECTS IN INTERNATIONAL FRANCHISING

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Abstract

National and international chains emerge using franchising as a convenient base to expand with relatively low risk and entering new and also unknown markets. In international business, franchising has granted easy and fast access to entrepreneurs helping them to start their own business, with guidance from professionals. For a franchise system to be successful many aspects play a role. However, one fact stays the same: There will always be at least two parties involved. Even before the parties are legally bound, power relationships evolve and form the stage for short, medium or long-term agreement, which can or cannot be mutually benefitting. Emotions resulting from power distributions, pressure and possible may lead to unsatisfied business exits and can happen due to non-equilibrated partnerships. In most cases it is the franchisor that is in the position of giving out the rules. The spirit of individualism and creativity is held to a minimum, since franchising roots in a branded concept, nationally as well as internationally. In today's global world, cultural differences at the work place can be the source of many problems but also the key to success. The paper examines the power distribution, locus of control in the context of franchisee/franchisor relationships. Within this focus, the research looks at Hofstede's factors of cultural dimensions and hopes to find out patterns to enhance successful international expansions and improved franchise partnerships.

Franchise Definition

Franchising systems have developed over time and adapted to specific needs of franchisors, who are eager to expand and grow their businesses. Franchising also allows them to earn more money with their business ideas by giving out access to certain sources of knowledge, technicalities, or other resources. The root of the word franchise is based in the ancient French language: "franche, meaning free or exempt".¹ 'In the past it referred to a trading privilege or a collecting privilege given to someone by a sovereign or ruling institution. In exchange for the right, the franchisee had to pay a royalty fee to the one giving out the right, meaning the franchisor. One of the largest institutions for franchise opportunities is the government, still; e.g.

¹ Lafontaine et al. 2008, p. 1.



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cable television and highway construction. When talking about franchising it usually refers to contractual relationships of firms who buy the right to use the franchisor's brand or sell the product. Time and location are fixed in the contract.² This general definition sums up the fundamental theory of franchising, which can be implemented with small differences for goods and service industries alike. Advanced economies show a large portion of franchise business, which resembles a legally agreed form of vertical integration. In the United States of America, franchising is a very common way of expanding business, as figures show. In praxis, franchising has developed quickly and its initial, basic form has adapted to many different business sectors. Due to its popularity one can say that companies see many benefits of selling their very own business ideas to others, who then further commercialize the initial business thought, while paying fees to the headquarter.³ Without mentioning fees and legal aspects Norton sums up the details in a short and practical definition: "Franchisors, typically offer managerial assistance – for example, site selection, training programs, standard operating procedures, design of physical layout, and advertising – to the franchisee, and the franchisee agrees to run the business according to the franchisor's stipulations".⁴ According to the IFA President & CEO Steve Caldeira franchising means starting and running a business for oneself but not by oneself.⁵ Continuous support is part of the package one buys in a franchise.

Two basic types exist: traditional franchising and business format franchising. 'Traditional franchising emphasizes the manufacturing sector and the right to distribute their products through franchisees, which are licensed to do so. Examples are automobiles, soft-drink bottling, beer, and gasoline.'⁶ Vertical integration is the question in this case rather than any other: Should the manufacturer take over distribution himself through an employee or shall distribution be done by another company, in this case the franchisee? 'Business format franchising differs from that by emphasizing the trade dress, the franchisor's brand, and the supply of goods and services to customers. This type of franchising is rather seen in the service sectors, such as hospitality, health, accounting, and real estates. Typical for business format franchising is that the franchisee receives a package with a concept containing a valuable brand name and guidelines for a special way of doing business for exact this company he/she franchises from.'⁷ Due to the flexibility of franchising models several different business sectors have the chance to offer suitable expansion solutions.

It is important to not only see the process advantages of the business itself but also the economic activities created by it. For the US this means as of 2010, that franchising activities economically supported over 11% of all nonfarm work and about 10% of nonfarm GDP.⁸ Nearly 765,700 establishments employed over 7.6 million people and had an estimated output of 706 billion dollars.⁹ In Germany about 1.000 franchisors plus their 65.000 franchisees

² Lafontaine et al. 2008, p. 1.

³ Blair & Haynes 2009, p. 1.

⁴ Norton 1988, p. 199.

⁵ Harrison & Haller 2011, p. 1.

⁶ Blair & Haynes 2009, p. 1.

⁷ Blair & Haynes 2009, p. 2.

⁸ International Franchise Association 2011, p. 2.

⁹ PricewaterhouseCoopers LLP 2011, p. 3.



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employed around 463.000 people and had a turnover of about 55 billion Euro in 2010.¹⁰ Compared to 2000 the turnover was only 22 billion Euro. ‘Over 200 new franchisors opened between 2000 and 2010 in Germany. Services have the most franchising presence with 46%, followed by retailers with 32%, hotel and food and beverage with 15%, and craftsmen 7%.’¹¹ In general, 20% of all franchisees own 50% of all franchises, which shows the tendency to multi-unit ownership.¹² The purpose of this paper is to investigate different franchise ideas, its threats and the need of adaptation for an internationally functioning franchising system. The author’s goal is to contribute to the ideas of franchising and to collect new angles to look at the system.

Critical Thoughts about Franchising

Since the beginning of franchising this business form has significantly been gaining importance. Entrepreneurs decide to be franchisees due to a certain level of security,¹³ while belonging to a large chain,¹⁴ and to take advantage of the support structure. These are the key elements to opt for franchising. However, franchising is also a topic for critical thoughts and gives many opportunities to reflect several aspects together with their pros and cons. For example, one study examines franchising in the light of ethnicity. Black minorities in the US are a group which may run a potentially higher risk due to lack of education and adequate work experience to successfully evaluate a given franchise contract of their interest.¹⁵ However, especially minorities and other potentially disadvantaged groups, such as women, might gain easier access to entrepreneurial experience. They do not have to re-invent the business idea and further are safely placed in a network with professional experience at hand. According to a report compiled by the International Franchising Association, within the United States in 2007, minorities own about 20% of all franchised business. This number is higher by 6% than minorities owning non-franchised businesses.¹⁶ Resulting from these numbers, one can see the support franchising gives to rather disadvantaged society groups. These groups get the chance to turn into successful entrepreneurs and at the same time increase their society standing, earn higher income and offer jobs to people of their environment.

Nevertheless, Udell points out that contracts are sometimes rip offs for the franchisee and contain unreasonable expectations, as well as favorable contracts for franchisors.¹⁷ According to the economic model of self-interest, franchisors will take advantage of franchisees, if the opportunity arises.¹⁸ Although, it is important to mention that this is only a model and does not reflect the general business ethics of individual franchisors around the world. Opportunistic franchisor thinking might also vary for example in family owned franchising systems, or between large and small franchising operations, or national versus international operations. The influence of franchisees might grow when one franchisee owns several franchise units. Academia often does

¹⁰ Kaolbe 2011, p. 3.

¹¹ Deutscher Franchise Verband 2010.

¹² Dhruv Grewal et al. 2011, p. 537.

¹³ Frazer et al. 2007, p. 1038 cited after Williams 1998.

¹⁴ Frazer et al. 2007, p. 1038 cited after Hunt 1977.

¹⁵ Udell 1973, p. 32 cited from Cameron 1970.

¹⁶ Harrison & Haller 2011, p. 1.

¹⁷ Udell 1973, p. 34.

¹⁸ Harrison & Haller 2011, p. 33.



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not distinguish between multi-unit owners and considers these cases as one individual entrepreneur.¹⁹ Franchisors however do distinguish, since the power relations between single and multi-unit owners can play a role in decision making for franchisors. When owning several units efficiencies can be created and resources can be multi-used. This tends to result in higher profits and therefore higher return for the headquarters – a win-win situation. Research shows that multi-unit franchisees' motivation to own more than one unit is rather due to entrepreneurial thinking than pure investment motivation. Represented in the service field based on research in restaurants, a franchised outlet compared to a non-franchised outlet triggers more demand and therefore creates higher turnover.²⁰ Higher turnover and a well working relationship with few discrepancies is the goal of any business relationship. A balanced dependence leads to mutual interdependence in the long-run.²¹ Interdependence in franchising nurtures better communication, as in quality, amount and frequency and forms a win-win strategy. Well working relationships usually enjoy a successful communication pattern. With an improved communication system, challenges are overcome easier and the co-operation spurs trust building.²² Combining these references, it shows that adequate communication between related parties leads to better understanding, less frictions, and higher qualitative relevant outcome. The author recommends to establish standardized communication paths, that are easy to follow and keep them up also under difficult circumstances to allow for less miscommunication and a constant helping hand for everyone in need.

According to Grewal dependence triggers maintaining the relationship,²³ interdependence triggers improved franchise performance²⁴ and a strong relationship increases sales performance, decreases cost, and increases innovations.²⁵ This combination influences the relationship between franchisee and franchisor is the key to sustainable success for both parties. In general, any relationship lives of giving and taking. Nevertheless, franchisor and franchisee might have developed power relationships over each other. While the franchisor owns the brand, the system, and the idea of the processes, the franchisee has the market knowledge and heads the operations.²⁶ Power streams may generate disequilibrium, less satisfaction and may lead to lower productivity and a higher propensity to leave, if the motivation keeping the business decreases.

Many discussions also arise about the entrepreneurial aspect of franchisees and whether franchisees can be seen as “real” entrepreneurs. It is to distinguish: franchisor entrepreneurship, meaning corporate entrepreneurship and franchisee entrepreneurship, meaning organizational entrepreneurship. ‘On the one hand, arguments against franchisees reflecting the entrepreneurial spirit are that general legal issues mostly happen on the franchisor level and the franchisee only follows the given paths of the franchisor. Another argument is, that the risk of a new market entry is shared between franchisor and franchisee; therefore opportunities are normally identified by the franchisor. Others critique that franchisees simply manage their franchised

¹⁹ Grewal et al. 2011, p. 537.

²⁰ Steven C. Michael 1999, p. 319.

²¹ Grewal et al. 2011, p. 539 cited from Heide & John 1988.

²² Grewal et al. 2011, p. 543 cited from Mohr et al. 1996.

²³ Grewal et al. 2011, p. 549 cited from Ganesan 1994.

²⁴ Grewal et al. 2011, p. 549 cited from Hibbard et al. 2001.

²⁵ Grewal et al. 2011, p. 549-550 cited from Palmatier et al. 2006.

²⁶ Frazer et al. 2007, p. 1039.



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units but do not pursue a significant growth strategy.²⁷ Franchisees might not be seen as entrepreneurs because they do not invent the business idea, they may even take over an existing franchiseship, and enjoy stability of an existing network system.²⁸ On the other hand, franchisees have knowledge about local markets and are the ones improving and solving operational challenges. In addition, a franchisee has to deal with marketing issues, financial aspects and market information. Another argument for considering franchisees as entrepreneurs is that many of them operate as family run business and tend to have a strong collective entrepreneurial spirit, with the desire to control businesses themselves instead of being controlled. They put in the necessary effort to be successful.²⁹ Despite these valid arguments, counter arguments exist for all named aspects. The author is convinced that franchisees are entrepreneurs, however makes a distinction of “first degree” and “second degree” entrepreneurs, while classifying franchisees as entrepreneurs of “second degree”, due to the fact that some challenges are already cancelled out, such as developing, establishing and testing a business idea. The author recommends treating franchisees as entrepreneurs, because then they feel responsible for their acts and live the job rather than simply do the job necessary.

Elements of Successful Franchising

One component in the framework of franchising is learning. ‘Learning defined by Wang & Altinay distinguishes two categories: exploratory and exploitative. Exploratory learning builds on an external aspect, on new things, its outcome is less certain. Exploitative learning builds on and improves the existing to reach efficiencies.³⁰ Both forms of learning influence the franchising partner selection and the resulting relationship.³¹ Therefore decision-making is influenced by learning. Different departments within an organization at the franchisor level might have distinct opinions on decision-making due to non-mutual learning processes and different information. Decision-making also depends on the quality and quantity of information given. Based on the information available learning can take different paths and lead to distinct outcomes of decision-making.

Another component of successful franchising is branding. According to research results in Germany, publicized in 2007, ‘the top three candidates were McDonald’s (fast food), Fressnapf (animal food), and Town & Country Haus (house construction). These companies share numerous key elements: They all operate under successful brands on which franchisees build their own company. They receive a ready to implement business concept with continuous support, which guides the franchisees to develop their own company.³² Here it is to say, that some franchisings are new on the market and have less experience, which then can lead to less support or less professional support. It is important for all potential franchisees to check that the system in place is well developed and that help from the mother company is available in all relevant business areas.

²⁷ Ketchen Jr. et al. 2011, p. 585-588.

²⁸ Chlosta & Kissel 2011, p. 947, 966.

²⁹ Combs et al. 2011, p. 419-421.

³⁰ Wang & Altinay 2008, p. 226 cited from Sorenson & Sørensen 2001.

³¹ Wang & Altinay 2008, p. 228.

³² Jansen & Plüskov von 2007, p. 2.



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The most important element though, is the entrepreneurial attitude of the franchisee who, should not believe in automatic success. The will to work hard and to spend a lot of time and energy in the start up phase starts the path of success. McDonald's is a renowned brand and offers a franchise system around the world. 'With a presence in over 100 countries and a relatively long business history, which started 1937, McDonald's often is used as benchmark for developing and existing franchise companies. A high degree of standardization, which leads to economies of scale, an aggressive international expansion strategy, and an innovative mind behind continuous development and growth, guide the way. Quality, service, cleanliness and value were and are vital aspects, which lead the business idea to grow.'³³ Moreover a well thought out real estate strategy gives McDonald's the competitive edge to top other fast food chains financially. McDonald's generates a large amount of cash flow from renting out real estate to its franchisees. 'With a planning time of two to three years, the potential restaurant locations are examined, rented or bought and then built on to be handed over as turn key business.'³⁴ Taking advantage of a favorable marketing mix helps franchisees to establish and grow within their brand system. The franchisor should be in the situation to have developed an ideal product, price, promotion, and place, which he improves constantly and permanently. If the franchisor is in the position to hand on a sophisticated marketing mix, operations for the franchisee are significantly easier. Although franchisees should be granted a degree of individualism, well-communicated and mutually favorable rules should be part of the franchisee-franchisor agreement. In this context the right branding strategy is the key to success. Mutual marketing efforts are advantageous due to one brand and multiple franchise units within a region, or one country. The value of a brand can be monetary and non-monetary, therefore these figures reflect estimated values. Figure 1 shows the top brands in the world according to Interbrand estimates: 'Coca-Cola, IBM and Microsoft with an estimated brand value of around 72 billion dollars, 70 billion dollars, and 59 billion dollars respectively. McDonald's in 6th place with 36 billion dollars brand value.'³⁵ The top 15 brands can be divided into four groups with Coca-Cola and IBM being the leaders with little difference in estimated value. Microsoft and Google come in second, GE forms the third group by itself and all other companies mentioned are relatively close together between about 25 and 35 billion dollars. The list shows that the top brands offer rather services than goods. It arises the question whether services offer more potential for building strong brands compared to companies producing hardware or whether service oriented companies put more emphasis on a stronger brand. Most brands show improved brand value over the past 5 years, only four brands were rather challenged in improving their reputation. Brands stand for a certain image. Images can be directed to a certain belief. For example Coca-Cola is a master of avoiding scandals connected with its brand. Being a popular and global franchisor for bottling beverages, Coca-Cola has developed diplomatic strategies to avert unfavorable reputation from its brand. Due to its organizational structure the firm is able to disperse negative information into its widely branched system, which places small bottling franchisees with private character at the end of the line, the franchisee. Those bottlers then are not operating directly under the control of the mother company but rather independently³⁶ and

³³ Schneider 2007, p. 32.

³⁴ Schneider 2007, p. 87.

³⁵ Interbrand 2011 website.

³⁶ Tobis 1977, p. 72-73.



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therefore the headquarters of Coca-Cola intelligently stays out of any destructive image moves coming its way.

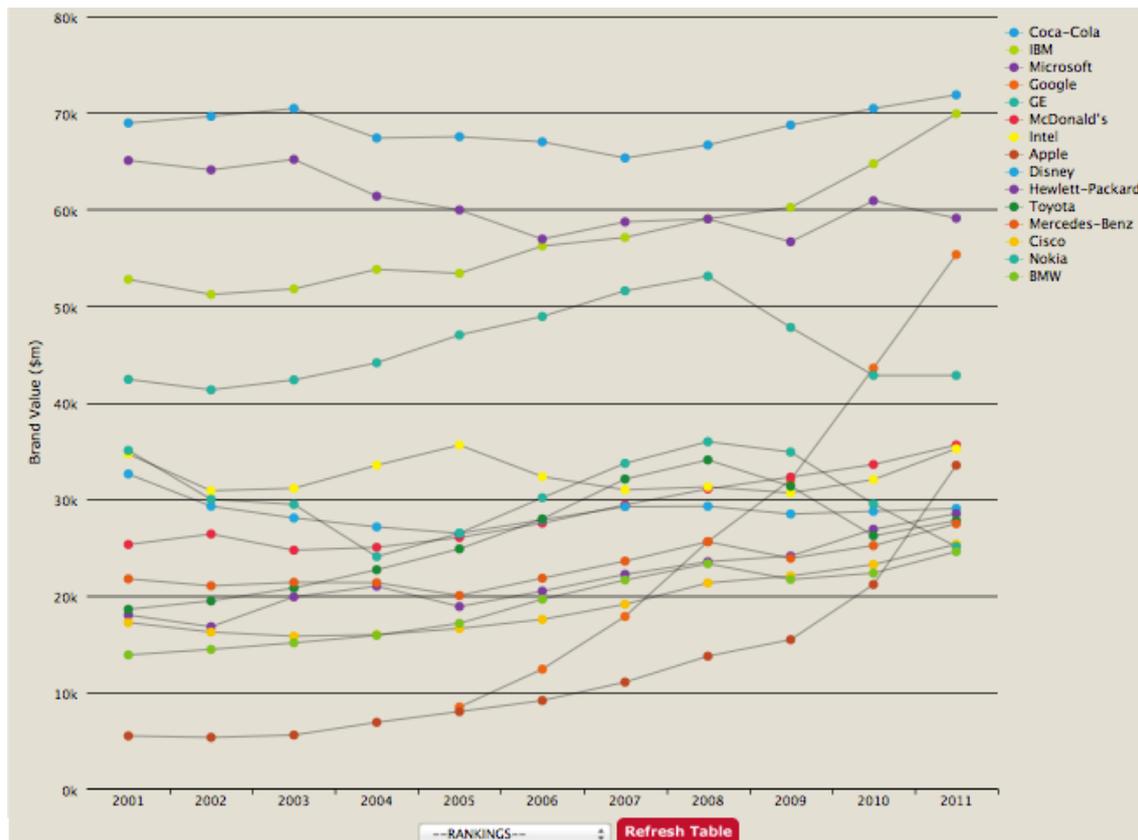


Figure 1. Best Global Brands

Source: Interbrand in 2011³⁷

A good partnership is nurtured by effective communication and is a vital part of any relationship, as mentioned already. In the sense of franchising this means dialogue and interaction between partners to grow and maintain a mutually benefitting business career. Lack of communication increases the propensity to leave most partnerships, independent of their nature. Communication and commitment are two aspects that go hand in hand in a determined partnership. Three dimensions of commitment can be categorized: affective (emotions), normative (obligations),³⁸ and continuance (recognition cost when leaving).³⁹ Linking these commitments with social exchange theory, it implies that these dimensions

³⁷ Interbrand 2011 website.

³⁸ Meek et al. 2011, p. 562 cited from J. P. Meyer & Allen 1984.

³⁹ Meek et al. 2011, p. 562 cited from J. P. Meyer et al. 1993.



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explain the existence or non-existence of a franchiseship⁴⁰ and are proven to be the essential base of working together successfully. ‘Commitment, as described in these dimensions, classifies whether the franchisee has a strong will to stay, the need to stay, or the obligation to stay. Affective commitment lowers absenteeism, increases the sense of belonging to the partnership, and therefore results in the desire to stay in the interactive partnership.’⁴¹ In contrast to other researchers Meek found out that the propensity to leave the franchiseship depends mostly on continuance commitment.⁴² Nevertheless, researchers agree to the point that communication on a “frequent, rational, and reciprocal basis” triggers emotions of belonging.⁴³ These findings are not difficult to relate to since all our lives are paved with relationships, some more intensive than others, however already personal experience in everyday life confirms these theories. Once a partnership has lost trust or understanding, parties may think about leaving the agreement. Relating to customer loyalty methods, also franchise loyalty has to be kept up and invested in on a regular basis to spur the symbiosis of benefits. Taking into consideration leaving the franchiseship and actually leaving the franchiseship are two levels of ideas – this distinction should come easy to all of us, since it is human nature to critically think of topics before maybe executing them. Arguments that trigger dissatisfaction are for example lack of promised support, which might be due to the lack of resources at the headquarter. Lack of support for the franchisees is reflected in the resource scarcity theory. Franchising allows access to financial and human capital,⁴⁴ which without franchiseships would be significantly more difficult. ‘This theory shows that missing resources for expanding the business are tried to be overcome by finding a partner with whom to co-operate. Also first mover advantages can be gained and new markets can be tapped relatively easy.’⁴⁵ Considering that ‘many franchisors are small and medium size firms, with some incompetence, lack of resources, and missing experience in guiding franchiseships professionally there could be enough room for dissatisfaction. Missing and vital input for franchisees can then lead to the theory that franchisees may adapt quickly to the given – badly organized – situation and lead to a decreasing co-operation benefit, which in the next step possibly emphasizes the propensity to leave.’⁴⁶ A combination of social and demographic factors give additional input about the attitude towards a relationship. Higher age, family duties, and gender are factors, which influence a person’s evaluation of arguments for or against leaving the relationship.⁴⁷ Emotions influence situations stronger than legal commitments can. A saying displays: Hope is that last thing that vanishes. Emotions are very strong, not always rational and may unfold unknown sources of positive and negative energy. In contrast, Combs et al argue that there is a higher chance for franchisees to stay in a franchiseship rather when economically, but not emotionally, locked in.⁴⁸ Money apparently

⁴⁰ Meek et al. 2011, p. 562 cited from J. P. Meyre & Herscovith 2001.

⁴¹ Meek et al. 2011, p. 565.

⁴² Meek et al. 2011, p. 572.

⁴³ Meek et al. 2011, p. 572.

⁴⁴ Meek et al. 2011, p. 559 cited from Kaufmann & Dant 2001.

⁴⁵ Wang & Altinay 2008, p. 227 cited from S. C. Michael 2003.

⁴⁶ Dormann & Ehrmann 2007, p. 655.

⁴⁷ Dormann & Ehrmann 2007, p. 662 cited from Bashaw & Gant 1994.

⁴⁸ Combs et al. 2011, p. 420.



seems one of the few elements that makes individuals leave emotions aside. The author believes that in the case of money being the only motivation to accomplish tasks makes people lose their sensibility for the job and their sensibility for their environment.

Another example for growing dissatisfaction is a continuous limitation of entrepreneurial freedom for franchisees, which need space in their decision taking and business acting.⁴⁹ Once too many parameters are set regarding how business decisions have to be taken, partnerships have a higher potential to cause disharmony and eventually break. Communication can also be seen as the key to trust. Trust together with commitment lead to satisfaction and then lead to the intention to stay in the relationship, as described in figure 2. Therefore short-term and long-term relationships have different weights on each element as displayed in the model below. The franchising model has a time factor and displays that with time the relationship is likely to grow. The left two blocks symbolize communication and behavior while form the first step and base for future commitments. Others argue whether co-operation is the step before or after trust. The author believes that it depends on the level of co-operation to determine the party's position in this model. Further it is suggested that small steps of co-operation come early and larger steps of co-operation come after a certain level trust. First trust has to be gained and only low risk is taken to explore the new situation. Then loyalty comes into play. It is the result of satisfaction and implies the intention to stay. It can be seen as the final level of determined commitment. According to this model the intention or decision to stay is dependent on many previously occurring factors and their combination. However they form one stream of influences. It is important to mention that different people react distinct in situations and therefore personality traits, cultural aspects and external, non-franchise influences might be equally important for a franchisee to come to the conclusion to stay in the relationship.

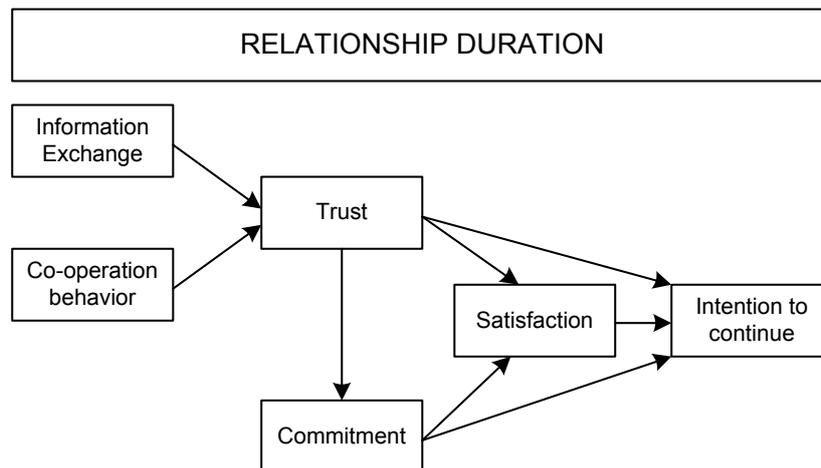


Figure 2. Effect on Intention to Continue a Franchise Relationship

Source: Bordonaba-Juste & Polo-Redondo 2008⁵⁰

⁴⁹ Dormann & Ehrmann 2007, p. 667.

⁵⁰ Bordonaba-Juste & Polo-Redondo 2008, p. 330.



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In order to evaluate potential franchise partnerships, decision-making processes are vital for future success or failure. Several stakeholders with distinct human dynamics interact and different models of decision making apply in various situations. Further, different cultures display a variety of values and backgrounds, which then influence the organizational structure and in that context they influence the decision making process. Altinay and Okumus mention five decision-making models: rational decision-making approach, bounded rationality model, process model, garbage can model, and the political model.⁵¹ Each model bears advantages and disadvantages for specific situations and moments when the decision has to be prepared and taken. How, when, why decisions are taken and the way they are actually taken is often misinterpreted. Therefore, ‘organizations need to make clear to everyone involved how certain parameters in the franchisee selection process interact and influence each other. In this sense different mindsets of participating individuals should be taken into account’⁵² and practices from different countries should be acknowledged to harmonize the process and pave the way for the future. Since international franchising intensively deals with connections of businessmen and businesswomen around the world, it is important to recognize the cultural differences. Potential, existing and sometimes past, franchiseships should be examined and most times accepted in the light of cultural diversity. “Culture is about the way people understand their world and make sense of it”.⁵³ Culture is very personal and differs from one group of people to other groups. Sometimes the differences are understandable but sometimes they conflict with our way of thinking and our values. Geert Hofstede, a specialist in international cultural studies, developed five cultural dimensions, which represent a framework for better and mutual understanding in private but also in business relationships. The five parameter are: Power Distance (PDI), Individualism (IDV), Masculinity (MAS), Uncertainty Avoidance (UAI), Long-Term Orientation (LTO) to describe a nation’s behavior in distinct settings. For this study, Geert Hofstede examined over 70 countries between 1967 and 1973.⁵⁴ Power Distance describes extend to which power is divided among powerful members of a group. Individualism shows the extent of individuals being part of a group. Masculinity represents the degree to which women values differ from men values. Uncertainty Avoidance (UAI) reflects the level of tolerance for uncertainty and avoidance. Long Term Orientation (LTO) includes values such as perseverance, virtue, tradition and social obligations.⁵⁵ ‘Cultural distance, a described by Altinay and Okumus in figure 3, is the head element in the decision making process for accepting new franchisees. Following cultural distance, three stages define the selection. The first stage is *initial lead* and this stage is an information gathering process about opportunities. In the second and graphically central position is the level of stage, *selection*, proposals are screened and matched with own brand strategy. In the third stage, *committee approval*, often financial aspects guide the non-emotional decision making process.⁵⁶ Altinay and Okumus therefore see culture as the first and foremost influence on selection partners or projects over alternatives. This implies that culture prefers the work with culture, which is attractive to either

⁵¹ Altinay & Okumus 2010, p. 930-931.

⁵² Altinay & Okumus 2010, p. 944.

⁵³ Hoecklin 1995, p. 21.

⁵⁴ Hofstede 1973.

⁵⁵ Hofstede 1991.

⁵⁶ Altinay & Okumus 2010, p. 939-941.



the business task that has to be performed, or the business cooperation. Depending on what is worth more to the one who selects the partner, this should then be the weighted criteria for decision-making.

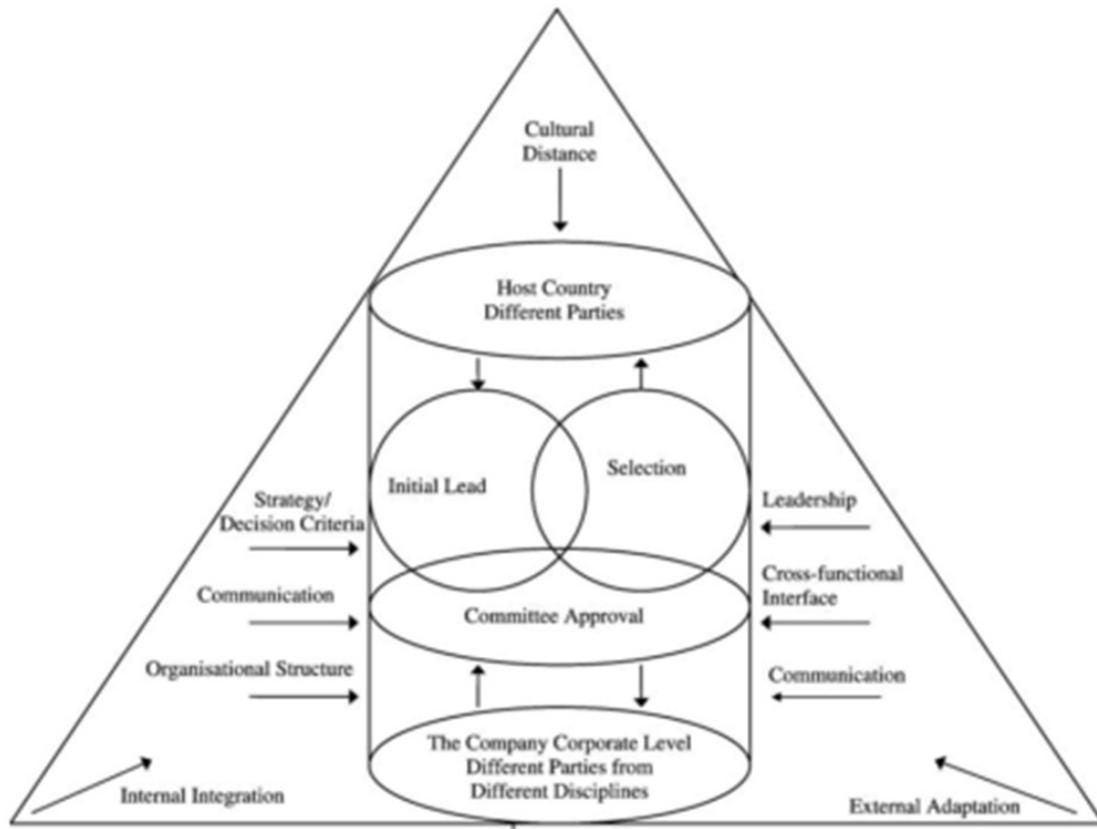


Figure 3. Franchise Partner Selection Decision Making

Source: Altinay and Okumus⁵⁷

This idea is shared with Hofstede's critical analysis on culture and its dimensions. In the context of organizations Hofstede further argues that strategic alliances are less risky and generally more beneficial than mergers.⁵⁸ The author believes that an international expansion considering franchising can be seen rather as a strategic alliance. If the company expands abroad with its own resources, then the international unit could be seen as marriage and in the context of cultural differences it can be more difficult. With the cultural dimension framework it is possible to categorize and make use of the large quantity of data, however the information gained is only an approximate guide to group and classify.

⁵⁷ Altinay & Okumus 2010, p. 935.

⁵⁸ Hofstede & Hodgetts 1993, p. 57.



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Conclusion

This paper discusses general and psychological aspects of international franchising. The mentioned elements show clearly that this business concept is advantageous for everyone involved, if executed seriously. Establishing a brand name, which is recognized internationally requires joint effort but as the graphs showed an investment in the years to come. International co-operation can be achieved, when understanding and adapting to the local environment where necessary. In the author's view brand name and adaptation should be considered carefully since the name stands for brand and the brand itself should reflect the same values everywhere. Evaluating the aspects discussed above, power relationships turned out not to be one-way, but rather two ways, if respect towards the partner prevails. No franchisor will be likely to give up a franchisee, if the issues can be fixed, since the process of finding another franchisee to take over the unit is costly and time consuming for the franchisee and the franchisor. As a result from this fact, the author recommends to intensively examine the franchisee before choosing, so reach a higher degree of certainty that this party fits the needs for the franchiseship. In addition, concerns about the entrepreneurial spirit were raised. The author considers franchisees as entrepreneurs, since they are the ones operating the business and take day to day business decisions with their own money at risk. Further, they can give important input to the headquarters, which could even be of benefit for the whole system. Finally, the author would like to emphasize that the skeleton of franchiseships is similar to the basics of human relationships, which are lived everyday and therefore references and solutions could be corresponding. Analyzing the discussed sources, the author recommends that successful bonding for a mutual and lasting co-operation comes from working jointly together, having the motivation to grow, and respecting the other party while meeting obligations.

Further research is recommended in the area of which franchisor incentives trigger most beneficial franchisee development to ensure uniform procedures across the franchise network and therefore support brand image and brand recognition. Additional research should examine how incentives differ across industries and countries to obtain a guideline for franchisors of which tools to use for additional success. Moreover, the potential of minorities in franchising should be tapped since especially this group seems to be in need of facilitated business entries, of which franchising is an option.

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**DETERMINANTS OF TEAM PERFORMANCE IN BUSINESS
ORGANIZATION EMPIRICALLY RESEARCHED UNDER
INFLUENCE OF BEHAVIOR – VALIDATED
IN AN EUROPEAN ENVIRONMENT**

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Abstract

Human resources, the economy, and large organizations face dramatic changes based on the worldwide financial and economic crisis. Thus Behavioral Economics is becoming more and more a part of daily business in large organizations. Since the 1940s, teams have played an important role and today the use of formal, informal developed teams in organizations continues to increase. As the interest in Team Performance rises, empirical and theoretical attention has been focused on varying themes such as conflict, social networking, and decision-making. The new drive of Behavioral Economics into economy has given rise to the idea to measure Team Performance including behavior. This research paper presents an executive summary of how to measure the determinants behavior of an empirical research by methods of secondary analysis, survey, and a result of a validation process through a laboratory test method in an European environment. It presents a result to measure Team Performance, including the determinants of behavior, in a summarized and representative way and gives a perspective of how to set up team so that they are performing on a high level.

This paper is based on the fact that Behavioral Economics is entering the economic business area. It summarizes aspects of Team Performance & Behavioral Economics, outlines a way to measure behavior by Team Performance and presents an executive result of an empirical research study. The authors define teams including behavior and develop a 12 dimension model of measuring Team Performance including the determinants of behavior.

Key findings are: First, Team Performance is measured in companies on a regular basis. Due to new trends in organizations also triggered by crisis, Behavioral Economics is entering



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into the practical environment, linked to the increased importance of measuring Team Performance. Secondly, the research result presents evidence that it is possibility to measure behavior in Team Performance and empirically presents the impact of behavior. Lastly, an important result of a dissertation in a summarized way is presented empirically that delivers a support of the entrance of Behavioral Economics into the economy and environment in measuring Team Performance with the determinants of behavior.

Introduction

As the interest in Team Performance rises, empirical and theoretical attention has been focused on varying themes such as conflict, social networking, and decision-making. New drive of behavioral economics into the business environment has given rise to the author an idea to measure Team Performance including behavior. The author's research into the field of Team Performance proposes a selection of Team Performance dimensions including behavior. A team should have a mix of competences, i.e., technical skills, problem solving, and interpersonal skills, with the goal to approach and accomplish a high level of team results. However, based on the author, aligned with Hyatt, Ruddy and Moran, teams need to have an appropriate level of empowerment to deliver and manage their tasks, including proper leadership support and a significant environment with a rewards and recognition system. The author defines the team including the behavioral field. Furthermore, a dimension of behavior should be included into the research to evaluate the significance of behavioral economics in the economic environment and Team Performance. In current literature, the author finds many definitions of the term team. The perspective of the term varies with the author. For example Van Dick et al. define team as any group of people, who work together. This work can be cooperative and interdependent in order to produce goods or services. Usually team players give account of their performance to each other. Schneider et al. put emphasize on the responsibility of each TM for reaching the goals. The purpose is to meet the needs of customers of the organization. Weinert adverts to the need for efficiency in a team. The author shows that in this context a team is not only a group of people working together, but a self-organised connection of individuals in order to work hand in hand. Thus, a team can produce long-term troubleshooting.

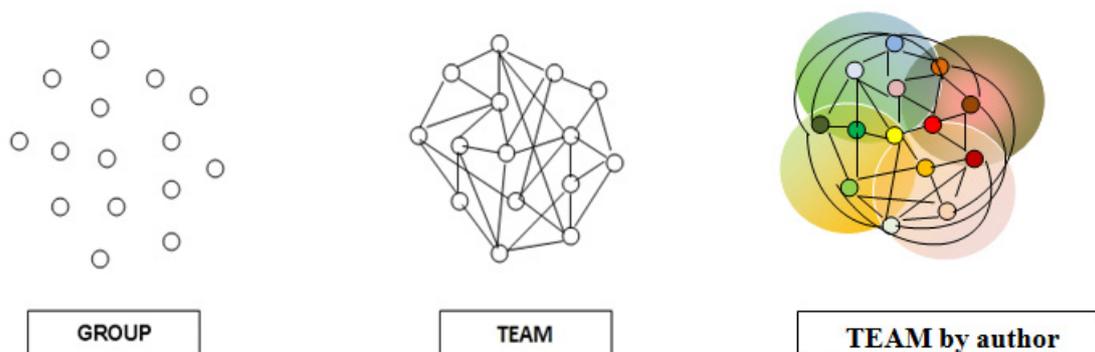


Figure 1. Team Definition by the author



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The author identifies also the problem that often the terms team and group are used as synonyms, but the difference between a team and a group is the reach of synergies. The performance of a group consists only of the input of each individual. In a team there is binding force and responsibility between the team members. This has individual effects as well as collective impact. The following figure visualises the difference between group and team. Teams can be created for various interactions. It is possible to introduce teams both in long term and short term perspective.

The research into the field of Team Performance proposes a selection of Team Performance dimension. Furthermore, it is necessary to outline that a team must work hard and must be committed to achieving results. [1] In addition, a team should have a mix of competences, i.e. technical skills, problem solving and interpersonal skills with the goal to approach and accomplish a high level of team results. However, teams need to have an appropriate altitude of empowerment to deliver and manage their tasks, [2] proper leadership support, [3] as well as a significant environment with a rewards and recognition system. [4] Furthermore, a dimension of behavior should be included into the research so evaluate the significance of Behavior Economic into the economic environment and Team Performance. However, the literature is so far very economically with this idea. Not many Team Performance assessment found in the literature had behavioral statistical information or statistical psychometric soundness of the instruments. A definition of each dimension, used and relevant for this study, is described with the focus to indicate the scale of the dimension name to this research. This research has defined four clusters, in which one cluster focuses on the new innovative behavioral aspect and three other clusters, which are based on literature findings to measure TP. In total, there are on 12 dimensions defined and in this publication, it will be purely focused on the Cluster Behavior.

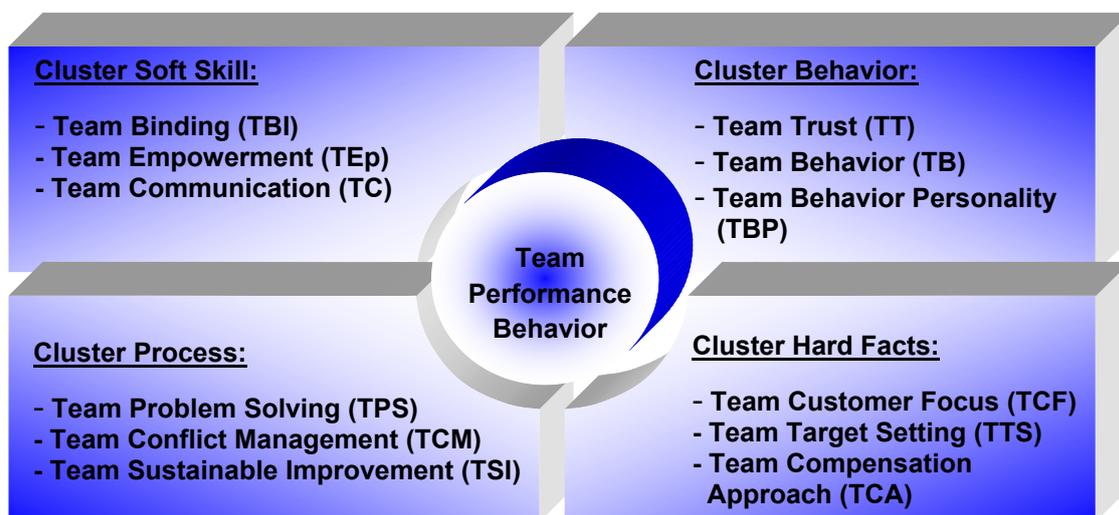


Figure 2. The 12 Dimension for Team Performance Model incl. context of behavior



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Team Trust is a difficult area. On the one hand it is a behavior topic, on the other side; it occurs within a relationship and implies some amount of risk and individual vulnerability. A behavior of trust is initiated in a team when the person believes that the team, "...makes a good-faith effort to behave in accordance with any commitments both explicit or implicit, ... is honest in whatever negotiations preceded such commitments, and ... does not take excessive advantage of another even when the opportunity is available" [5]. In addition, a trust environment can be developed by people who have shared social norms, shared experiences and repeated interactions. [6] During the research on the relationship between trust and performance in teams, there are studies that report a link between trust and performance while others do not. Smith and Barclay found for instance a positive relationship between trusting behaviors and perceived trustworthiness with task performance using different rationales. In addition, Mc Allister found already in 1995 a positive relation between the behavioral trust and the assessment of performance. However, there are researches in which trust takes a moderate role in the relation between team processes and performance. [7] TT will be defined as the degree to which team members believe they can depend on other TM abilities and intentions.

Team Behavior is a complex field and therefore often not considered so far in statistical TE measurements. This dissertation has the main focus in this area and hypothesis a key influence in TE. TBE is referring to actions or reactions of an i.e. an organism (a person), usually in relation to the environment. TBE can be conscious or subconscious, overt or covert, and voluntary or involuntary. Referring to the literature, team role behavior is measured by the known used Belbin Team Role Self-Perception Inventory (BTRSPI). In addition, there are researches done focused on team role aspect on the significant in behavior by gender. [8] Furthermore, the authors Fisher and Macrosson brought the childhood family environment to interpret different management team role in the sense of behavior. [9] The known BTRSPI is a widely used instrument by managers and trainers in management selection, assessment, team building and management training, but it does not measure TE in teams, even though it delivers aspects of behavior. [10] TBE in this dissertation is defined on the origin to psychophysiological factors as extroversion-introversion, high anxiety-low anxiety, which underlie the TBE definition in this dissertation. [11] The aspect of the individual's motivation and values is a part of the particular set of definition in TBE.

Team Behavior Personality can be defined as a dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations, and behaviors in various situations. [12] The definition of TBP for this dissertation is focused on the personality aspects of Openness to experience: the tendency to be imaginative, independent, and interested in variety vs. practical, conforming, and interested in routine. Conscientiousness: the tendency to be organized, careful, and disciplined vs. disorganized, careless, and impulsive.

Agreeableness: the tendency to be softhearted, trusting, and helpful vs. ruthless, suspicious, and uncooperative.

Neuroticism: the tendency to be calm, secure, and self-satisfied vs. anxious, insecure, and self-pitying. [13]

At this stage, it is important to outline a theoretical based comment to the hypothesis of the Cluster Behavior, Team Trust in the field of heterogeneity. The system-theory deals quite strong with the field of heterogeneity of organizations. In their context, heterogeneity is not only



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used in the context of random or negatively evaluated characteristics of organizations, which focus on standardization, but also build the basis for flexibility and organizational learning development. A central message of the system-theory is the aspect of “law of the necessary diversity” [14] in which the long-term survival of a system is in danger when the complexity is not enough to allow variety to solve environmental influences. As more heterogenic a system appears, as more is the probability for linkage to element of a system. [15] As a result, the internal heterogeneity is therefore the most important pre-condition of self-reflecting development processes of systems and so the successful adaptations of the continuous changing environmental conditions. [16] Reviewing into the management and organizational theory, St. Gallen Management approach [17] and the author Kirsch [18] assume that organizations are too complex to get steered systematically and target oriented by management. Instead of using instruments to reduce complexity to be capable to manage the organization, they propose to understand complexity as an advantage. In conclusion, complexity, heterogeneity and redundancy take a key position into the conditions to have a long-term capability of the survival of the organization. [19] However, empirical studies deliver only partly evidences. There are studies that present a positive impact from cultural heterogeneity to the TP, but there are also studies that present a negative impact. By the author Kilduff/Angelmar/Mehra (2000) and Gibson (1999, 1st part), there is shown no impact of cultural heterogeneity in their empirical study. The authors Thomas/Ravlin/Wallace (1996) prove even a negative influence of the heterogeneity linked to TP. However, Cox/Lobel/McLoeod 1991 and Gibson (1999, 2nd part) deliver a positive effect of TP and Earley/Mosakowski (2000) find even an linear relation to TP. Based on the discussions, in this dissertation it was decided to take this hypothesis in and try to deliver an additional aspect of the empirical study in the field of heterogeneity.

The Core Hypothesis with the Six Key Hypotheses

H_{y0} If Team Performance is measured in Business Organizations, then it will be affected when the team has a basic knowledge about behavior action/reaction of team members.

Reflecting these dimensions, the core hypothesis and the behavioral aspect, the following hypotheses are issued:

Cluster Behavior: Dimension Team Trust

H_{y1TT} *The higher the heterogeneity, the higher the Team Performance will be.*

H_{y2TT} *The higher the content of the business together is related, the higher the Team Performance will be.*

Cluster Behavior: Dimension Team Behavior Personality

H_{y1TBP} *The higher the age range in the team, the higher Team Performance will be.*

H_{y2TBP} *The higher the level of education in the team, the higher Team Performance will be.*

Cluster Behavior: Dimension Team Behavior

H_{y1TB} *The higher diversity index in a team, the higher the Team Performance will be.*

H_{y2TB} *The higher the amount of not taken vacation days, the higher the Team Performance will be.*



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Empirical Research Environment and the Measurement Indicators

The empirical research environment is an organization that is used for the secondary analysis, survey and in which the hypothesis are checked against the data is today a worldwide company under the top five software business players in the field of lifecycle management. The global organization has more than 8,000 employees worldwide in more than 24 countries with more than 63,000 customers. It is a dynamic, flexible, lean, function-oriented and team-structured organization that develops, sells, and provides service of software. The research design focuses on the second largest country – Germany – in the sense of revenue and profit. The German organization is represented in the field of research development, pre-sales, sales, services, customer support and support functions (IT, AC, Finance, HR, and Procurement). The following measurements are defined in relation to the hypotheses:

- H_{y1TT} Heterogeneity (H) is measured by one Team Member with foreign nationality = 0.25, one team member living experience abroad = 0.25;
- H_{y2TT} High content business relation (BR) is measured by two Team Members from the same business field = 0.5 three Team Members from the same business field = 0.75 four Team Members from the same business field = 1.0;
- H_{y1TBP} The age range (AR) will be measured by age range from 1-3 years = 1, age range from 3-6 years = 2, age range from 6 – 10 years = 3, age range higher than 10 years = 4;
- H_{y2TBP} Education (Ed) is defined and measured by education (no study background, apprenticeship or learning academy) = 0.5, Bachelor/Diploma University of Applied Sciences = 1.0, Master/Diploma University = 1.5, Doctor = 2.0;
- H_{y1TB} Diversification Index (DI) presented via the measurements of 4 team members with equal gender = 1, 1 Team Member different gender than 3 other Team Members = 2, 2 team Members men and 2 Team Members women = 3;
- H_{y2TB} Left Vacation (LV) days per Team member measured by 1-10 left = 1, 11-20 = 2, 21-30 = 3, More than 30 days = 4.

Team Productivity is presented via the measurements of achieved variable income versus targeted revenue. In the following, it will link this to the variables. By measuring the determinants of TP in the behavior in this empirical study, it is wanted by the author to link at this stage with conjectures summarized by Lewin in the psychological field theory: “In psychology, one can primarily distinguish between a person (P) and its environment (E) in a situational context. The extent of one or the other element, which certain behavior depends on, varies tremendously. In principle, however, this psychological phenomenon depends on the predisposition of the person and its environment. So far, we can utilize the formula $B (=behavior) = f(S=situation)$. Behavior (B) can describe any psychological activity as the function $B = f(P, E)$.” Based on this equation, the author concludes, there is a cause-and-effect-relationship between behavior as a dependent variable, and personality and its environmental context as the independent variables. As a result, the author links these to the research of the determinants of TP in business organizations, theoretical background & empirical evidence in the context of behavior and linked to the hypothesis and measurement delivered, the equation could be transformed into to $TP = f(SoftSkill) + f(Process) + f(Hardfacts) + f(Behavior)$, whereby the focus of this dissertation is concentrated on $TP = f(Behavior)$. Subsequently by the



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author, the equation continuously triggers function $TP = f(P,E)$ with the additional aspect that TP is measured by team productivity, fluctuation rate and vacation rate, and whereby $P = TM$, and $E = BR$. TM would be defined by the indicators of age range, education, heterogeneity, diversity index, remaining vacation per year, so that we could get the following summary: $TP = f(TPr, Fr, Vr); f(AR, Ed, H, DI) + (BR)$. The author defines therefore the dependent variables as presented by TPr, Fr, and Vr, and the independent variables as AR, Ed, H, DI, BR.

Empirical Research Methods, Its Validation and Results

The secondary analysis is a method using existing material independently from the original aspect relating to the required topic and analyzing the data in relation to it. The advantages of this method are to provide a retro view of using real data in a long-term perspective, to use it for multiple research of a complex problem, to accumulate more representative data, to compare data to various trend analyses, and to be able to compare it with new research data. The challenges of this method are that there might be a high risk of receiving the data; the theoretical background needs to be defined clearly so that the secondary analysis will be suitable for the research, and there is question about the quality based on the limitation of the delivered data. In this analysis, there will be targeted collection of the definition for diversity index, age range, heterogeneity aspect, business field operations, educational level, and status of open vacation days. In addition, it will be calculate individual productivity and Team Performance by targeted revenue and achieved revenue. The secondary analysis was implemented by empirical researching pro rata the data of 68 teams that comprise 602 team members In addition; we will review if there is a possible to link to the designed hypothesizes. The age range result outlined that the sales population has a wide age range distribution; however around 50% of the employees are at least 40 years of age, which could signify that the company has a lack of behavior in younger mind-sets. It also could link to the behavior, the dimension of team behavior personality, which triggers the age range into the hypothesis that the higher the age range in the team, the higher the Team Performance will be. In conclusion, the salary rate and revenue achieved would need to be approximately high even though there was a financial crisis. As same behavioral personality cluster includes the educational perspective, it is valuable to focus on it. The educational level overall is around 70%. The education level is doctoral degree, 1.4%; university diploma, 50%; master's degree, 3.54%; certificates, 14.95%, and not available, 30.11%.

Result and Analysis of the Secondary Analysis

Based on the previous overview into the first results of the Secondary Analysis and the first links to the hypotheses, a more detailed link is now established to the indicators and measurements and its hypothesis. The following table provides a detailed overview and linkage, based on hypotheses and defined measurable indicators by points to each team and reflection to the calculated productivity rate. The presented point calculation is based on the designed indicators.



Table 1

Overview of Hypothesis Measurements & Indicators

Team	Hypothesis Rate	Productivity Rate	Team	Hypothesis Rate	Productivity Rate	Team	Hypothesis Rate	Productivity Rate
Team1	31.25	24.68	Team24	26.50	14.10	Team47	13.50	27.60
Team2	26.75	33.90	Team25	17.25	15.10	Team48	16.75	20.00
Team3	22.50	53.90	Team26	21.50	21.40	Team49	13.00	21.70
Team4	19.25	24.70	Team27	17.25	14.80	Team50	12.00	21.70
Team5	21.25	81.90	Team28	19.25	21.50	Team51	16.00	12.40
Team6	21.75	37.00	Team29	21.50	-0.44	Team52	18.75	12.60
Team7	15.75	24.40	Team30	21.75	20.00	Team53	25.00	09.80
Team8	17.50	21.70	Team31	19.75	17.30	Team54	18.25	27.50
Team9	18.00	27.80	Team32	18.75	17.30	Team55	15.50	39.40
Team10	19.50	26.00	Team33	22.50	14.90	Team56	12.50	33.20
Team11	15.00	22.20	Team34	23.25	08.40	Team57	13.50	58.00
Team12	13.50	23.10	Team35	16.00	24.40	Team58	21.50	23.00
Team13	27.25	25.90	Team36	28.00	21.40	Team59	18.75	52.00
Team14	18.00	30.40	Team37	14.75	27.90	Team60	18.00	58.30
Team15	26.25	12.00	Team38	16.50	15.00	Team61	18.75	22.60
Team16	21.00	22.80	Team39	20.00	14.30	Team62	25.25	25.20
Team17	16.00	46.70	Team40	20.25	07.10	Team63	27.50	19.40
Team18	23.50	24.20	Team41	20.25	18.60	Team64	24.75	21.00
Team19	21.75	06.70	Team42	18.75	23.90	Team65	16.75	28.40
Team20	15.50	-6.28	Team43	16.75	29.20	Team66	19.25	24.40
Team21	21.75	16.90	Team44	11.00	14.60	Team67	24.50	16.90
Team22	14.25	27.70	Team45	22.25	12.20	Team68	15.25	12.10
Team23	20.00	17.70	Team46	21.00	12.70			

Conclusion and Implications of the Secondary Analysis

It seems to be by reviewing and analyzing this secondary analysis, of 68 teams, 602 people in a sales population, and linkage to the implemented Pre-Test, the hypothesizes with the defined indicators generally show an intersection and influence to determine Team Performance in relation to behavior. The empirical secondary research analysis indicates in its reflection measurable overlaps and outlines behavioral impact. Key determinants of Team Performance might be heterogeneity and education; medium determinates Team Performance in relation to behavior might be age range, diversity index, and determinants of business relations do not need to be focused anymore at all, and open vacation days seems to be a minor role in determining Team Performance in relation to behavior. One critical aspect in this secondary analysis could be the different size of teams, even though the average team number is 8.8; however there were larger and smaller teams and in general, a suitable amount of 602 people



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evaluated. In conclusion, the secondary analysis reflects a tendency of the Pre-Test [19] with variations in diversity and age range. The secondary analysis was a valuable empirical research to analyze the trends of the hypotheses and review the variables and their influence on the topic of Team Performance with determination of behavior. In reflecting on the Pre-Test [19], the following function was made: $TP = f(TPr, Vr); f(AR, Ed, H, DI, FR) + (BR); TP_{sum} = f(2079, 48); f(13, 21, 2, 5, 0)+2) / (TPr = \text{Team Productivity Rater}, Vr = \text{Vacation Rate}, AR = \text{Age Range}, Ed = \text{Education}, H = \text{Heterogeneity}, DI = \text{Diversity Index}, FR = \text{Fluctuation Rater}, BR = \text{Business Relation})$. In review of the delivered secondary analysis, the following function can be made: $TP = f(TPr, Vr); f(AR, Ed, H, DI, FR) + (BR); TP_{sum} = f(1599, 199); f(261, 483, 38, 95, -27)+272)$. Looking at both functions, the question appears to be how they compare way and is it possible to identify parallels. Based on this, the following two illustrations present first a view on the first part of the TP function $f(TPr, Vr)$ and the second function $(AR, Ed, H, DI; FR) + (BR)$.

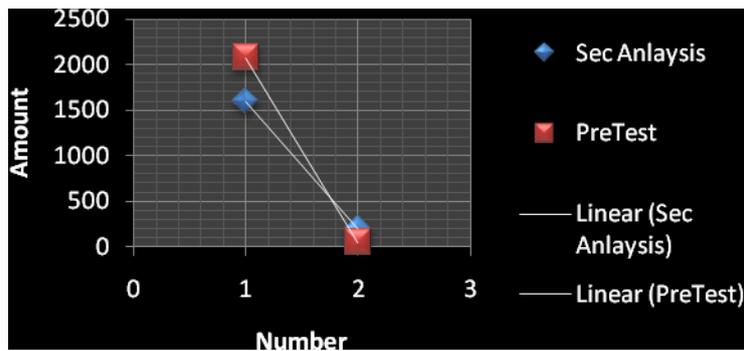


Figure 3. The view of $f(TPr, Vr)$ by PreTest & Secondary Analysis

By comparing the two TPr or even the Vr, parallels can be identified. Of course, the amounts diverge due to the different amount of the population, but a parallel tendency is found. The thin white line is only shown to outline the parallelism.

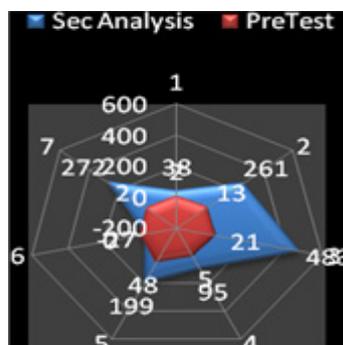


Figure 4. The view of $f(AR, Ed, H, DI, FR) + (BR)$ by PreTest & Secondary Analysis



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In reviewing this illustration, it can be seen that the Pre-Test [20] covers the aspects of the secondary analysis or vice versa; however, the Pre-Test [20] has not delivered the extreme outcome shape as the secondary analysis. So far, it can be stated that the Pre-Test [20] and the secondary analysis drive this research with the defined hypothesis of determining Team Performance in business organizations with the theoretical background and the so-far evaluated empirical evidence in a specified context of behavior and links via the measurable indicators into a new and interesting perspective of behavior in business. An additional review and comparison should be done of an empirical evaluation of a Team Performance Survey in the sales population to measure the Team Performance, including the relationship of behavior, and to evaluate and link the results to the Pre-Test [20] and secondary analysis [21].

Survey

A survey is a study by asking people from a population about their opinion on a specific issue with the intention to define relationships outcomes in this issue. There are three types of survey: the descriptive, the explanatory and the explorative one. Based on the research question, it is one solution to issue a survey into the conflict team including the mediator and ask for their feedback. The choice of a survey seems to be a reasonable solution with the possibility to add a research method with the goal to increase validity and reliability. In the industry organization, teams self-assess their performance. Of course, the assessment and its measures is based on this research and rooted in theory [22] because theoretical models greatly influence the way in which measures are constructed and utilized [23]. In conclusion, the teams are asked voluntarily to complete a self-assessment including the aspects of behavioral approach against their performance using the new approach of team assessment. This is accomplished by sending an e-mail to request for participation in the research to all of the team leaders throughout the organization. Moreover, the opportunity to participate in the research is communicated individually to managers and news-tickers internally. Teams are informed that their participation is voluntary, their information is used anonymously, and the data from their pilot assessments is used for the sole purpose of validating the properties of the assessment. Participants receive no feedback of the results as the instrument had not yet been evaluated. Teams have the choice of completing their assessments in electronic or paper format. The electronic version of the assessment is available on a commercial electronic data collection tool and is sent to the team leaders, Team Members via e-mail. All of the electronic assessments contained only information to identify the total feedback. The survey is anonymous. The collection procedure is designed this way to maximize anonymity at individual. The data will be then evaluated. Based on this information data analysis, statistics will be done.

Results & Analysis incl. the Link to the Hypothesis of the Survey

The idea was to evaluate Team Performance in form of a survey with the determinant of behavior in software sales and service population in Germany of around 840 people. The key aspect of the Team Performance Survey was the cluster of behavior. In this cluster there are embedded the key questions that link to directly to the hypothesis, which can be seen in the below extract of the survey. To pre-check, if the survey is designed correctly was done in a Pre-



Test Survey and the results were published [20]. The paper presents the final survey result. 840 participants were asked to open and answer the 17 questions in order to evaluate Team Performance including the determinant of behavior. Finally, 466 people filled out the survey, which is a rate of 55.47%. Out of this group 355 people answered at least one question, meaning 76%, and 295 people answered the last questions, means meaning 64%. It can be concluded that the survey is representative. The respondent population has is in an Age-Range of 30-49 years, 99% of the participants have an education with 78% of having at least a bachelors degree. 45% of the respondents have lived abroad and 40% have 5-10 days open vacation days, 25% have more than 11 days left for vacation in 2010. The focus of the evaluation will be on the eight key questions in the cluster behavior that are linked indirect/directly to the hypotheses.

Conclusion & Implications of the Survey

Reviewing the Survey of the Software population of 466 people in total, it can be definitely stated that the survey is representative. Based on the detailed results and analyses, it can be also stated that the survey delivered clear results for the questions and therefore clear key messages to the hypotheses. The received data with the focus on behavior and the linkage to the hypothesis triggers in total a valuable result.

The question in the survey, whether the Team Performance increases by knowing more about the behavior of the others, links to the generic hypothesis and is clearly stated with 79% responding with a “yes” in the empirical test. A similar result was reached at during the Pre-Test Survey [20]. After the first laboratory test [24], the Pre-Test Survey [20] and now the final survey test with the representative number of people, it can be stated that this behavior has an impact on Team Performance. Referring to the dimensions of behavior and the behavioral cluster, the following summary based on the test can be formulated: Cluster Behavior: Dimension Team Trust H_{y1TT} : The higher the heterogeneity, the higher the Team Performance will be. The questions of team members with different nationalities add value to the Team Performance and team members with different experiences leading to a better trustfulness and Team Performance link to this hypothesis. Based on the results in the Test, it can be concluded that all three questions were answered so clearly that they deliver an explicit support of the statements and therefore to this hypothesis. Heterogeneity seems to have an impact on Team Performance. The final laboratory test should include the Dimension Team Trust and finally test it in the laboratory using methods of validity.

Cluster Behavior: Dimension Behavior Personality H_{y1TBP} The higher the age range in the team, the higher Team Performance will be; and H_{y2TBP} the higher the level of education in the team, the higher Team Performance will be. The questions of age range and educational level in the survey of the cluster behavior links these hypotheses. The results in the Test for the age range were clearly positive and delivered a strong representative trend. The assumption can be made, that Age Range has an impact on Team Performance. The support for educational level question and so the link to this hypothesis is not clear and strong. The representative data is not strong for this support and therefore it should be neglected for last test. In conclusion, the Age Range hypothesis is supported by the population and should be tested for validity in the final laboratory test. The result of the educational level is not strong enough based on the population and is therefore not to be considered in the further empirical study.



Cluster Behavior: Dimension Team Behavior; H_{y1TB} The higher diversity index in a team, the higher Team Performance will be; and H_{y2TB} the higher the amount of not taken vacation days, the higher Team Performance will be. The questions regarding the mixed-gender and the open vacation days are directly linked to these hypotheses. The evaluation of the mix-gender in the Test delivers a clear statement as well as the statement of the hypothesis with the open vacation status can be considered representative and hence stated as a trend. The diversity index and the amount of open vacation days are representative and empirically tested and deliver a supporting result.

In summary, the hypotheses are represented in the survey and clear empirical trends were provided. One hypothesis has not received the support, however all three dimension can be still considered and four hypotheses can be considered for validity in the final laboratory test. In addition, the overall hypothesis is clearly proved by the empirical test of Pre-Test [24], Pre-Test Survey [20], and this final survey result [25].

Validation Results & Analysis

In total, the author had involved 256 international university students in the European validation process, which were split up into 56 teams during a period of one year. In summary, the author had by average taken a team with 4.57 people in which the author followed the theoretical advice to have a team with more than three people.

Validation Heterogeneity 22 teams, 111 people

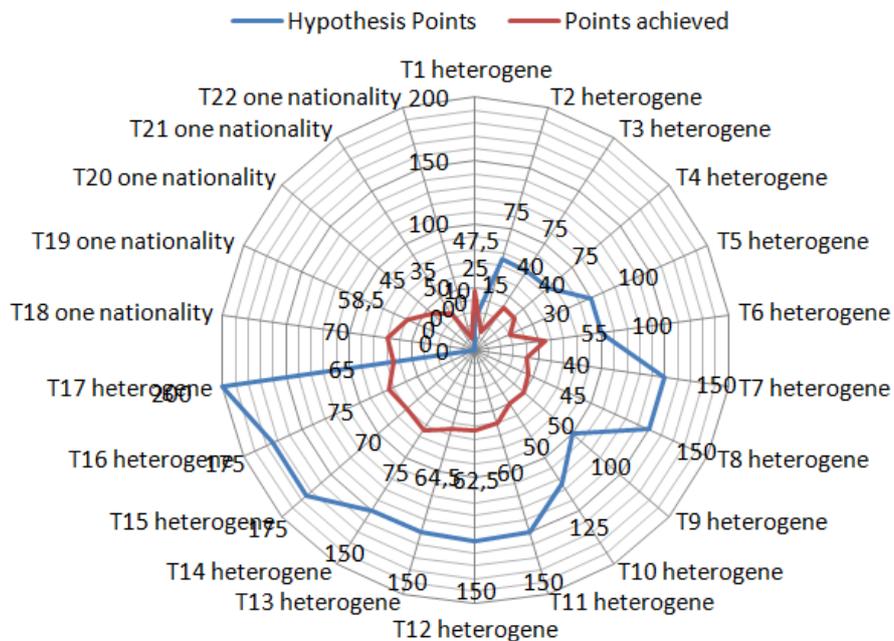


Figure 5. Validation result of heterogeneity



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The first hypothesis that was validated is sourced in the field of the team trust personality, defined as higher the heterogeneity, the higher the TP will be. Heterogeneity is defined in the area of team members who have the same nationality but have lived at least six month abroad or who have foreign nationality. As more as you have of these people in your team, as higher the heterogeneity, as higher the TP will be. The results present a validated tendency that heterogeneity teams perform higher than non heterogeneity teams. The point results for the heterogeneity teams are the same, it means foreign nationality and German with six months abroad, but one of the non heterogeneity team has only five points less. The productivity seems to be the lowest one by having only one nationality in the team, even though there is one overlap. There is a clear highest performance for a strong foreign, means high heterogeneity team.

The second hypothesis tested was in the field of behavioral personality, the age range hypothesis. The higher the age range, the higher the Team Performance will be. In the validation population there were no possible test populations for an age range of ten or above ten years, so that the test was limited to the three groups to 1-3 years, 3-6 years and 6-10 years. The result states a rough tendency that teams with a higher age range perform better, however on team performed worse with a higher age range than the other, but the two teams with the same high age range performed almost equal and better than compared to the smaller age range team. If we link this result to the theory of Katzenbach, Watson and Smith who mainly outlined that demographic diversity teams communicate better, increase cooperation and better collaborate so that the performance outcome will increase, the validation delivers a rough tendency to support the increase of performance. Of course the survey result as well as the secondary analysis supports this tendency [21], however the validation result show also a tendency.

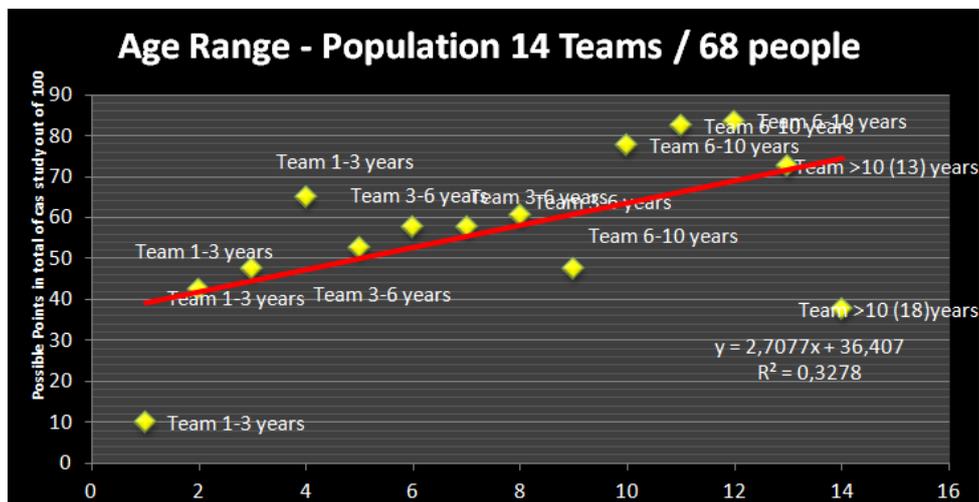


Figure 6. Overview of age range validation result

The third hypothesis tested was the diversity index, which is limited in the validation on the gender – mix. The graphic below shows a first tendency that the hypothesis seems to deliver a positive trend aligned with the results of the survey [25] and the secondary analysis [21]. The



result delivers a clear trend that as more equal of the gender mix in a team it becomes, as higher the increase of Team Performance. The gender team with two women and two men receives the highest outcome compared to the other teams. In addition, an interesting outcome is that the development of only women up to the gender mix is directly linked to the Team Performance. At this stage, it is necessary to mention that this result could be linked to the theoretical researches, in which it is outlined that the author Wood states that gender-balanced teams have more positive interaction, better communication and a conflict reduction, which would lead to a higher performance.

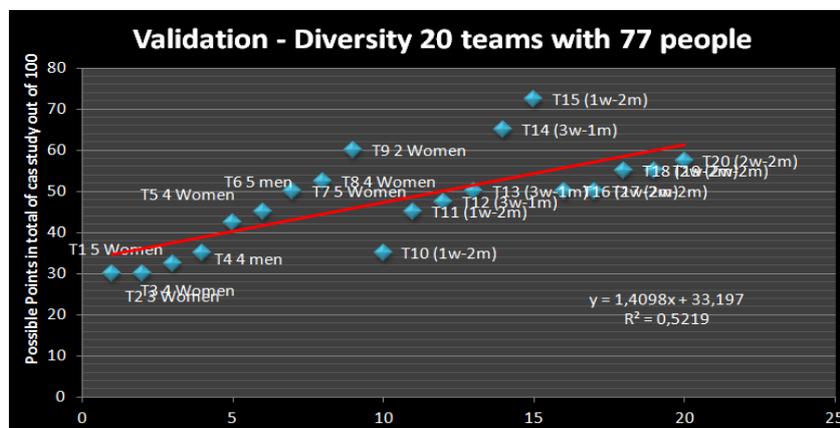


Figure 7. Overview of diversity validation result

Conclusion & Implications of the Empirical Research

The result of validation links by H_{yITB} to the critical discussion in the literature, in which one research group states the negative relationship and the other the positive relationship to cultural teams versus homogeneous teams. In this research based on the validation, there is a clear positive trend in H_{yITT} heterogeneity, H_{yITBP} age range, and H_{yITB} diversity that can be recognized in relation to the Team Performance and its determinants of behavior. In summary, all validations deliver a tendency of the hypotheses; however, the proposal is to continue with the validation and to link it to the results of previous research results in the field of Team Performance under the determinant of behavior empirically.

Based on the implemented research methods of laboratory pre-test [24], secondary data analysis [21] of around 68 teams and 602 people, a survey [25] with around 320 replies and a laboratory validation process [26] of around 256 international students with around 56 teams in a scientific University European wide environment, there were three hypotheses delivered with a strong trend analysis and one hypothesis with a given results but without validation. As a results, the authors conclude that the main H_{y0} were positively research and analyzed tested by $H_{y0} (TP) = f(H_{y1TT}, H_{y1TB}, H_{y1TBP}) + (H_{y2TB} * z)$; in which z stands for unknown impact of the validation that were not implemented by this hypothesis. In conclusion, the authors continue to state that the original $TP = f(TPr, Fr, Vr)$; $f(AR, Ed, H, DI) + (BR)$ can be concluded to $TP = f(TPr, Vr)$; $f(AR, H, DI)$. The authors are able to state based on the empirical research



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result that H_{y_0} If Team Performance is measured in business organizations then it will be affected when the team has a basic knowledge about behaviour action/reaction of team members. Finally, the authors showed that behaviour is able to be measured based on defined key indicators and evaluate the impact of TP.

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**THE FINANCIAL ARCHITECTURE AND THE INTERNAL
CAPITAL MARKET IN RUSSIAN BUSINESS GROUPS:
CHARACTERISTICS AND INTEGRATION
IN THE BUDGETING PROCESS**

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Keywords: business groups, corporate finance, internal capital market, financial architecture, budgeting

Abstract

Business groups exist in different countries all around the world. This review studies Russian business groups through the prism of two concepts: the first one of the financial architecture and the second – of the internal capital market. The aim of our research is finally to construct a model that allow to use all revealed characteristics in order to maximize the efficiency of business group's activity.

We use the classical concept of the financial architecture proposed by Stewart Myers in 1999, according to whom this term refers to “the entire financial design of the business, including ownership, the legal form of organization, incentives, financing and allocation of risk” [1]. We examine each element of the financial architecture to expose their features in Russian business groups.

All papers written about internal capital markets in Russian business groups date the period of 1990s – the beginning of 2000 year [2]. In our research we study the last ten years to show that despite changes in economic situation the internal capital market still exist in Russian business groups. To prove it we use a sort of “external” and “internal” approaches. We call “external” the approach to examine the sample of business groups in order to understand their financial characteristics and the impact to the activity of internal capital market. The “internal” method consists in the examination of one business group effecting its payments through the bank under its control that enable to see mechanisms of capital allocation and to evaluate the efficiency of business group's resource planning.

The concept of financial architecture was first proposed by Stewart Myers in 1999 as “the entire financial design of the business, including ownership, the legal form of organization, incentives, financing and allocation of risk” [1]. It's interlinked, in his opinion, with corporate governance (who manage the business?) and corporate control (how to seek that managers act in



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the interests of shareholders?). In addition he considers that the financial architecture relates to financial institutions [3]. Generally the financial architecture is identified as financial organization of the company.

Myers notes that the corporate financial theory has developed in the network of specific financial architecture – financial corporation in such countries as United States or Great Britain, so countries with well-developed, safe markets [3]. However he believes that even in these countries exist other well-functioning financial architectures. Continuing this idea we suppose that a kind of successful financial architecture might also exist in developing countries as the response to specific conditions of limited information in financial markets.

The first objective of our research is to understand special features of financial architecture of Russian business groups. We use the term of business groups as the common notion of forms of corporate ownership which has been widely expanded in Russia since 1990's. These forms seem to be very interesting to explore because of difference of legal form, organizational structure, activity, capital structure of group's integrated businesses.

According to the Myers' definition of the financial architecture to understand what identify the architecture of a business group we need to explore separately each point from this list:

- legal form of ownership;
- form of corporate government;
- form of corporate control;
- incentives;
- sources of financing;
- interaction with financial institutions.

However in our opinion this list isn't exhaustive to make a complete picture of the financial architecture and so should be supplemented.

The Russian economist A. Stepanova in her paper describes an impact of the financial architecture on the company's efficiency [4]. Among factors having direct effect on the strategic efficiency the author highlights these ones: concentration of the ownership (expressed as a part of shares of shareholders involved in management), quality of corporate governance, growth rate; the opposite effect – capital structure and size of the company. In addition the author suggests that the opposite effect of the concentration of the ownership on the strategic efficiency might occur in countries with developing capital markets and undeveloped legislation allowing to large owners to infringe minority shareholders' rights and turn to advantage corporate control.

M. Barclay and C. Smith in 1996 employed the term of the financial architecture in the context of corporate financing [5]. They suggest that the financial architecture is formed by investment opportunities of the company. Companies with high market-to-book ratio ("high-growth firms") prefer to use less debt compared to companies with low market-to-book ratio. In addition they consider that the size of the company (measured as total capitalization) also make an impact on financial architecture. Small companies have access only to short-term bank lending, at the same time as the large companies often use public debt and commercial paper.



Summing up, in our opinion the financial architecture of a company can be presented as a “cloud” of characteristics (see Figure 1).

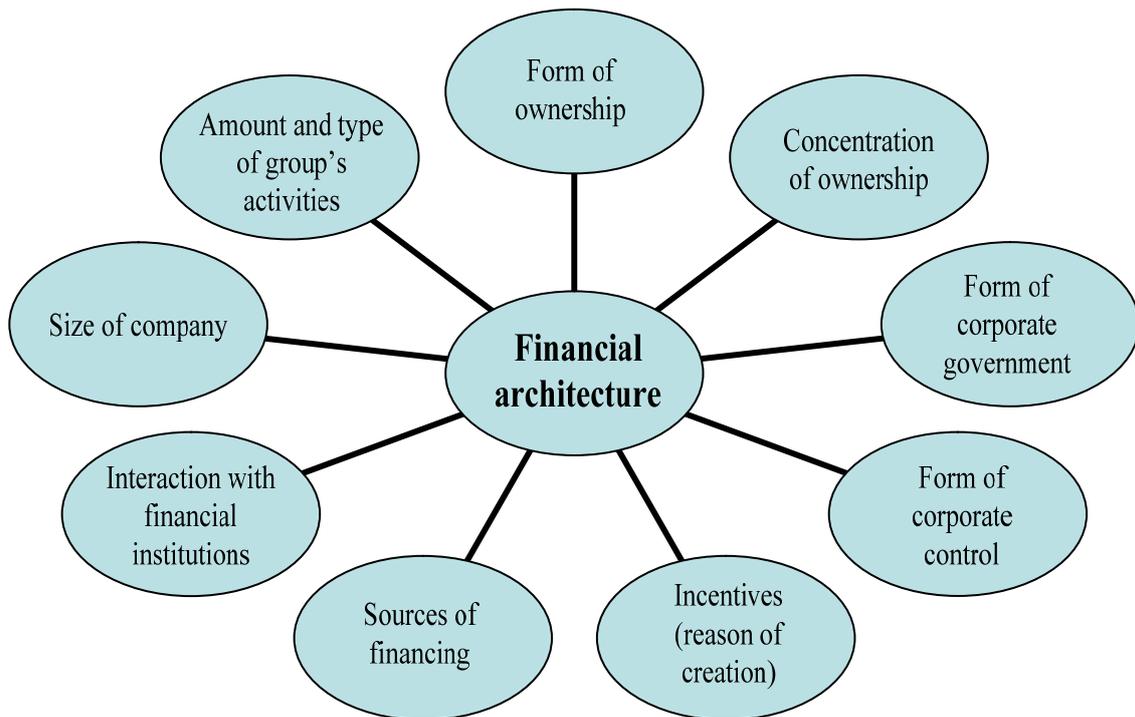


Figure 1. Characteristics of financial architecture

In the light of all named characteristics the definition of the financial architecture should be updated: it represents “the entire design of the business group covering the form and concentration of the ownership, forms of corporate governance and control, incentives and reasons of creation, size of company, including amount and types of group’s activities, as well as sources of financing and interaction with financial institutions”.

To form the information for our research we used the data from official Web-sites of corporations: history, organizational structure, information for investors and shareholders.

We made an analysis of 100 business groups through the prism of the definition of the financial architecture as presented above. We chose the most representative list of Russian business groups. According to various estimates in Russia it counts more than 1500 business groups (companies which use the phrases “business group” and “holding” in their names). However most of them really aren’t business groups: for example, a pair of commercial enterprises isn’t a business group in our opinion.

For each characteristic of financial architecture a specific criterion was used. We classed all business groups in compliance with types of chosen criteria.

The results of the analysis are shown in the Table 1.



Table 1

Business groups classed in compliance with types of chosen criteria

Characteristic of financial architecture	Criterion	Types	Number of groups (%)
Form of ownership	Nature of the property	public	4%
		private	94%
		mixed	2%
Concentration of ownership	Part of shares of shareholders involved in management	more than 50%	71%
		less than 50%	29%
Form of corporate governance	Managing company	available	60%
		not available	40%
Form of corporate control	Operating authorities of business group's members	dependent	76%
		independent	10%
		mixed	14%
Incentives (reason of creation) + Amount and types of group's activities	Concentration of complete production process in one company	vertical	19%
	Creation of wide trading network	horizontal	28%
	Diversification of group's activities	diversified	53%
Sources of financing	One company can use different sources	bank loans	76%
		other loans	35%
		bonds	28%
		stocks	24%
Interaction with financial institutions	Presence of the bank or other financial institution as member or constant partner of a business group	yes	63%
		no	37%
Size	Amount of group's members, number of operating activities, geographic coverage, welfare of shareholders	big	24%
		medium	65%
		small	10%

The data shows that the typical financial architecture of Russian business group can be described as: a diversified private company of medium size and concentrated ownership, with a bank or other financial institution and managing company as members of the group, using the most bank and other loans as sources of financing.

However it should be noted that this result will be able to vary if the sample increases. This fact obviously should be checked in further research.

The most examined part of the financial architecture of the business groups all around the world is the internal capital market as the specific source of financing.

S. Myers marks the internal capital market as the advantage of conglomerate's financial architecture – companies investing in some conjugated fields. Free cash flow is distributed from mature fields to growing units that delivers them from the necessity to attract external funds [3].



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In his opinion the internal capital market is not a market in the classical sense, it is a combination of centralized planning and in-house commerce which operates not only on the economic reasons, but also on “politic” ones. Often profitable units having excessive cash flows easily receive additional investment resources. Myers considers that the internal capital market can be effective in countries with undeveloped national financial market, insufficient government regulation, inadequate information, so in developing countries.

Many papers are written about internal capital markets in developing countries.

Thus, K. Samphantharak in the example of Thailand notes that corporate control, group size and within-group intermediaries (so components of financial architecture marked above) tend to facilitate the efficient resource allocation [6].

But often authors describe the internal financial market in the context of the global financial architecture, not corporate one.

T. Khanna and K. Palepu consider that the presence of multiple business groups in developing countries is the result of missing institutions [7]. The internal capital market of the business group allocate capital among group’s members more efficiently than the undeveloped external capital market does.

H. Almeida and D. Wolfenzon believe that the presence of business groups in developing countries inhibits the growth of new independent firms due to lack of finance [8]. The role of banks as financial intermediaries is dual: from one side they facilitate reallocation across firms, from the other – decrease the efficiency of overall reallocation because of the different banking relationships with certain group’s members.

Some authors even made a research of the activity of internal capital markets in Russia.

C. Hainz describes the internal capital market in Russian business groups as an objective reality [9]. In addition, the author considers that banks are often members of a business group where funds are allocated through an internal capital market. Capital is allocated internally due to better information inside the group.

E. Perotti and S. Gelfer in their research compare firms which are members of official Financial-Industrial Groups and/or are owned by a large Russian bank with a control set of large firms categorized by dispersed ownership or/and management and employee control [10]. They find that investment is sensitive to internal finance for the second set of firms but not for the first what is consistent with extensive reallocation of resources within the groups to overcome capital constraints. Generally, this is the consequence that group firms have an internal capital market which facilitate access to finance. Group firm, especially in bank-led groups, allocate capital better than independent firms.

Russian economists who examined Russian business groups rarely turned attention to internal capital market.

A. Shumilov and N. Volchkova tested the hypothesis of the presence and the efficiency of internal capital markets in Russian business groups of a period of 1999-2002 [11]. The authors suggest that internal capital markets, if they exist at all in Russian business groups, aren’t the substitute for underdeveloped financial institutions.

U. Petrenko notes that the appearance of business groups usually leads to formation if the internal capital market [12]. Among sources of financing of the holding’s investments bank loans and group’s funds take the second place after equity (15-20%).



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I. Shitkina considers that financing or redistribution between members of a business group processes due to concrete commercial purposes: realization of investment project, support of production process with cash resources, equipment and other, in the end – to largest profit earning [13]. Parent company controls a movement of cash flows and allocates them among members of a group.

Sh. Ismagilov develops the model of allocation of centralized investment resources among companies of an industrial business group [14]. On the basis of the model lay down these principles: choice of the most priority investment projects, growth of business group's efficiency, objective appraisal of possibility to finance a project, fullness of utilization of business group's financial resources. On the assumption of these principles the redistribution of investment resources in a group represents an optimization problem, which the criterion is the prognostic value of integrated rate of business group's effectiveness and the limit – the amount of accumulated and invested financial resources.

In our opinion the internal capital market of Russian business groups isn't a temporary form to substitute the missing institutions; it's a sort of externality of business group's activity, an inalienable part of its financial architecture.

So, the second objective of our research is to find special features of internal capital markets and its linkage with specific characteristics of financial architecture listed above. This fact will be certainly considered if the effective system of financial management is needed.

With this purpose we use a sort of "internal" and "external" approaches in order to overcome the information constraints of each other.

The "external" one is to study a sample of 68 different organizations inside 20 business groups among 100 business groups we studied searching a typical financial architecture of Russian business groups. We have chosen groups with characteristics the most close to this architecture.

For all selected businesses we analyze the balance sheet for several periods since 2002, making attention if company is parent or not.

The vertical analysis of balance sheets has shown the significant part of financial investments in the assets and the loans and credits – in the liabilities (50% and more, even up to 99%), for companies operating inside the group such types of activities: financial and other agency, leasing and hire, management and consulting regardless if this company is parent or not. All groups in these cases are diversified and have a significant degree of concentration of ownership.

The financial analysis of the activity of such members of the group gives strange results. The ratio of financial independence (equity to total liabilities), which normally should be more than 50%, for this case shows even negative values. The ratios of liquidity (current assets to short-term liabilities), on the contrary, show higher values than recommended. However, these companies continue to exist, although such results obviously give an idea that they are on the verge of bankruptcy. The "secret" of their long-lasting life and easy access to bank and other loans with this structure of capital is probably in their specific role in the business group's life.

Despite the harmonization of Russian rules of accounting with international ones, the balance sheet can't give definite response that these companies survive because of the



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reallocation of the capital inside the group¹. This fact was also marked by N. Dewaelheyns and C. Van Hulle: in their research they find that typical bankruptcy predictors (liquidity, leverage, performance, size and efficiency) are not the same for group member companies compared to stand-alone firms because of the presence of internal capital market [15].

We will tend to understand this hypothesis by the “internal” approach further. For the purposes of subsequent analysis we used these ratios:

$$\text{General cross – financing ratio} = \frac{\text{Investments}}{\text{Loans}}$$

In our opinion the closer all this ratios to 100%, the reallocation of internal cash flows for this member of the group is intensive.

The “internal” approach is to explore the redistribution of financial resources and its mechanisms inside one diversified business group effecting its payments through the bank under its control.

This group has a financial architecture similar to the typical one described above. The members of the business group perform different activities: food industry, construction, financial services, so the group in general belongs to diversified type. These companies take a significant part of their markets but the group seems to be a medium-sized because of concentration only in one region of Russia. The business group has one main shareholder who possesses more than 50% of shares in most of group’s companies. In the head of the group is managing company which exercises a total control on its activity.

First, we compared the amount of resources on operational and deposit accounts² of 4 subgroups of considered business group with sum of their credits in the bank under control of this group in a period of last 2 years. The ratio “accounts/credits” is derivative ratio of general cross-financing ratio referred above. All data is the arithmetical mean of intra-day rests on the relevant balance accounts what is more reliable that “on-the-date” balance sheets used in the “external” approach.

The correlation ratio “accounts/credits” varies from 0.02 to 0.32. The reasons of this fact can be different:

- for many group’s members, even if there is a within-group intermediary, bank loan isn’t the main source of financing;
- the presence of brokerage service gives an idea that the funds on these accounts also should be counted in further research;
- commercial papers, guaranties, granted to group’s members also should be included;
- the each subgroup has different degree of dependence from decisions made by managing company, subgroups only with high degree should be analyzed.

¹ This fact was mentioned only for one group. In its reports the sources and the directions of the financial investments and of the loans were clearly divided to: affiliated, dependent and other companies.

² We don’t name exact balance accounts because of specificity of Russian bank accounting. Under “operational” accounts we understand all on-demand funds, “deposit” – time funds.



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Due to the difficulty to extract new data quickly because of the lack of automatization in the bank system, we added only last correction from the list: the correlation ratio in this case has grown to 0.51.

Second, in order to understand how the internal capital market should be considered in budgeting model, we examined the methodology of annual planning in the business group. The annual plan contains 5 parts: cash flow plan, plan of income and expenses, sales plan, credits and loans plan, aggregated balance sheet. As the part of financial cash flow, the each member of the group (except bank and other financial intermediaries) should plan the receipt and the return of these types of loans: internal, commercial, bonded loan and loans of the staff. In credits and loans plan the member indicates to/from what other member of the group gives/receives the internal loan. Thus, the internal loan is the important part of companies' resources so the hypothesis above about impact of the reallocation on the structure of group's members seems to be realistic.

However in this context the method of the planning seems to be not perfect. There is no plan of reallocation of bank credits received by group's members with guaranties or on the bail of property of other members. There is no plan of financial investments in commercial papers, bonds and other securities. And finally, there is no indication in the aggregated balance sheet of the part of internal financial investments and credits and loans. This, in sum, doesn't provide reliable information of the financial performance of the member of the group and of the whole group as well. In our opinion it is the consequence that group's financial architecture and, thus, internal capital market are not integrated in the methodology of annual planning.

The possible solution is to include in the planning/budgeting system of the business group the cross-financing plan according to the place of member in the group and specific characteristics of its financial architecture, especially: form of corporate governance, sources of financing and interaction with financial institutions. The optimization problem consists in the equilibration of amounts of financial investments and credits and loans in compliance with the target cross-financing ratio for this group member in the special plan. The target ratio, in our opinion, depends on several characteristics of financial architecture adopted for this group's member:

- form of corporate governance and degree of concentration of ownership define the form of access to the internal capital market (more they are, the easier it is);
- incentives and size: the reallocation is usually more intensive for diversified medium and big business groups, as we have seen by the "external" approach;
- interaction with financial institutions and sources of financing: we studied it in the "internal" approach.

So, the more intensive reallocation needs this member of the group, the more is the target ratio to plan. In the aggregated plan for the whole group this ratio aspires to 100% if the maximum of internal capital market efficiency is needed.

Target ratio =

$$\left(\frac{\text{Cash assets} + \text{Stocks of groups' s members} + \text{Accounts and deposits in the financial intermediary} + \text{Loans provided to group' s members}}{\text{Equity} + \text{Stocks issued by group' s members} + \text{Credits and loans from financial intermediary} + \text{Loans from group' s members}} \right)$$



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The probable form of plan for group member to use is presented in Table 2.

Table 2

The probable form of plan for group member to use

Cross-financing plan for company ____	Contractor	Period 1	...	Period N
Financial investments		F_1	...	C_n
– long-term				
– short-term				
Credits and loans		C_1	...	C_n
– long-term				
– short-term				
General cross-financing ratio		F_1/C_1	...	F_n/C_n

As the conclusion we should consider that the notion of the financial architecture, so little examined, even in theory, is very important to understand the main business processes of business groups forming up the wide part of worldwide economy. The internal capital market, on opposite side examined in detail, didn't found application in practice.

In our research we search for reasons and consequences of the reallocation of funds inside the group. But the limited information gives more hypothesis to study in further research than integral conclusions. We propose a practical concept to develop in the budgeting process in the business group in order to maximize the effectiveness of the activity of the internal capital market and consequently – of all the financial architecture in general. This activity directly depends on the efficient planning of cross-financing inside business group.

The efficient planning of the redistribution of financial resources is possible by integration in the budgeting process (if the last one exists) of in-house budget of internal capital movement. The possible criterion to plan the amount of resources reallocating to each member is the cross-financing ratio which the value depends on the impact of each member in group development and defines the amount of financial resources possible to receive.

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**MUNICIPALITY AND INHABITANTS COOPERATION
FOR WELL-BEING: SALASPILS DISTRICT CASE¹**

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Abstract

Well-being is a good or satisfactory condition of existence, a state characterized by health, happiness, and prosperity. It is an ancient issue: all societies are trying to find the best possible solution for community well-being. The current research is devoted for clarification and update of opinions of different social and interest groups in Salaspils municipality (Latvia) to develop development plan of the municipality and involve society in preparation of decision making. The methodology of the research is worked out in Council of Europe and applied as pilot research in eight municipalities across Europe (in France, Belgium, Spain, Italy, Poland, Sweden and Latvia). Research methods used: scientific literature studies, statistical data analysis, focus group discussions. The research in Salaspils municipality was organized in 25 focus groups or so called homogenous groups. The main findings were updated and worked out well-being indicators and pilot actions to improve well-being of all people living in municipality and realize public involvement in decision making, all findings were discussed with representatives of homogenous groups.

Introduction

Promoting the wellbeing of individuals and communities is fundamental to the work of local government, and is a strong motivator for local councilors everywhere. It is a

¹ The research is conducted in research group involving also Sandra Vaivade, Agnese Vaivade, Inara Kantane, Julija Vladimirova, Hermanis Rullis, Justs Dimants, Ksenija Ijevļeva, Evija Rusite, Iluta Skruzkalne, Anete Pujate, Agate Zake and Kristina Galihanova.



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particularly opportune moment to explore the role of local government in promoting wellbeing. The recession continues to impact on individuals and on communities, creating the need to bolster the wellbeing and resilience of local populations. Local government today is facing up to the challenge of unprecedented cuts in expenditure and services, and more than ever must demonstrate cost effectiveness and the economic and social value of its services. Looking at outcomes from a wellbeing perspective helps us to demonstrate the value of local government.

Research results in many countries and practical experience of municipalities have recognized that local government is a key player in creating the conditions for material wellbeing. It does this through increasing employment opportunities, regenerating the physical environment and strengthening the local economy. Research results have proved the importance of psycho-social well-being in local populations, so that all residents can reach their potential and live a good life.

This paper calls for new ways of thinking and working in local government. The current research is devoted for clarification and update of opinions of different social and interest groups in Salaspils municipality (Latvia) to develop development plan of the municipality and involve society in preparation of decision making. The methodology of the research is worked out in Council of Europe and applied as pilot research in eight municipalities across Europe (in France, Belgium, Spain, Italy, Poland, Sweden and Latvia). Research methods used: scientific literature studies, statistical data analysis, focus group discussions. The research in Salaspils municipality was organized in 25 focus groups or so called homogenous groups. The main findings were updated and worked out well-being indicators and pilot actions to improve well-being of all people living in municipality and realize public involvement in decision making, all findings were discussed with representatives of homogenous groups.

Theoretical Background

Historically, discussions of well-being have been situated within, and based on, various religious, spiritual, and philosophical traditions. Among these, Aristotle's discussion of the "good life" as a life of "virtue" has proved to be particularly important especially as it was adopted by the Catholic Church and transmitted to Western civilization. Over the last 100 years, well-being became more and more closely associated with economic performance. In particular, growth in income came to be accepted as a proxy for increasing well-being. In part as a reaction to this "Economic Theory of Well-Being" [17], two broader approaches to well-being were put forward. Needs Theory, developed by Maslow, Max-Neef, Gough, and others [19], described a range of human needs relevant to well-being, some but not all of which are related to income. Capabilities & Functionings, developed by Sen, Nussbaum, and others [18] have stressed how one functions – what one manages to be and do - compared to one's range of capabilities, rather than simply the income one has to spend. The elements provide a framework broad enough to accommodate all of these theoretical approaches, but simple enough to be useful in the organization of diverse discussions of well-being.

In asking the public about wellbeing, it becomes clear that people tend to have a good understanding of its various dimensions. Typically they mention practical considerations (such as health and financial issues) [3] and subjective feelings and emotions (such as a sense of



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happiness and hope for the future) [1]. They also have positioned their own well-being according to their personal experience of family relationships, friendships and community [4].

But because 'wellbeing' is a term that can be used to mean many different things, there is a risk that it will end up losing its meaning altogether. In view of this it is worth recalling the various existing policy definitions of wellbeing to inform how we should define and improve it in a local government context. They share some key characteristics:

1. Wellbeing is about how people experience their own lives, so for example, people must feel able to achieve things or feel they have a sense of purpose to have wellbeing.
2. Wellbeing is more than the absence of problems or illness. This requires a shift in focus from what can go wrong in people's lives to what makes them go well.
3. Wellbeing is about the personal and the social, so improving the wellbeing of local populations needs to involve a strengthening of local social connections, support networks and the sense of belonging that make up the social fabric of communities.
4. Wellbeing is more than happiness. The aim of local government, therefore, should not be to set out to make people happy, but to create the conditions that enable citizens and communities to do well in life, to flourish [9].

Research results in many countries and practical experience of municipalities have recognized that local government is a key player in creating the conditions for material well-being. It does this through increasing employment opportunities, regenerating the physical environment and strengthening the local economy. But more recent evidence also highlights the importance of nurturing psycho-social well-being in local populations, so that all residents can reach their potential and live a good life [20].

Studies on the relationship between out-of-home placement and geographical factors have been studied by Andersen in 2010 [2] and there has been proved that they do not explain community-level variation in out-of-home placement rates. Data from Danish administrative registers which included all children living in Denmark between 2003 and 2005 was used to analyse whether community-level variations in placement rates are explained by municipal-level factors. The factors considered were: formal support, such as municipal expenditure on social policy; social support, such as municipal aid to volunteering organisations; social disorganisation factors, such as the local rates of unemployment and crime; and local political preferences. Four of the six indicators of municipal formal support analysed were found to be statistically significantly predictive. The number of preventive measures offered by a municipality, per-child spending on school and day care, and the number of students per class were all related to the risk of out-of-home placement. In addition two of the three indicators of social support were found to be negatively and statistically significantly related to the likelihood that a child will experience an out-of-home placement. The results suggested that the likelihood of placement diminishes as the level of municipal spending increases for cultural, sport, and leisure activities, as well as for the activities of local voluntary organisations. Social disorganisation in the municipality was estimated to be positively related to the risk of out-of-home placement. Andersen in his paper has proved, that political preference was not a statistically significant predictor of the risk of placement.

Satya Chakravarty [7] analysing inequality, polarization and poverty with special attention to distributional analysis, social exclusion and well-being has found that inequality,



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polarization and poverty is crucial for understanding the economic well-being of the population of a country. Conceptual and methodological advances and better data have provided better insights into these issues in recent years. Chakravarty has proved that since the well-being of a population depends on income and non-income indicators (including those provided by municipality), both unidimensional and multidimensional frameworks have to be taken into consideration.

Keller, Lehmann and Milligan [11] have studied in details effectiveness of corporate well-being programs by help of meta-analysis. Researchers have proved that health is a major component of well-being and quality of life is increasingly costly. In the respective research was examine the role of employers for promoting well-being and quality of life. Results of meta-analysis examinations evaluated the impact of fifty well-being programs, which addressed six health issues and use of seven marketing approaches. The analysis indicated that well-being programs and marketing approaches significantly improve employee health and depend on company size and employee gender. Results, based on sixty studies, showed that there is significant opportunity for efficient use of corporate health programs, including the municipality influence.

Matsubayashi and Ueda [16] have studied the government composition and human well-being and have proved that the composition of government is strongly related to the well-being of citizens, measured by the reported level of life satisfaction and suicide rates in industrial countries. The research conclusions were based on analysis, using survey data of 14 nations between 1980 and 2002. The results have indicated that the presence of left-leaning parties in government is associated with an increase the level of individual life satisfaction, unemployment rates and government welfare policies. The panel data analysis of 21 nations between 1980 and 2004 also showed that suicide rates decrease when a country experiences a shift to more left-leaning government. The increased presence of right-wing parties in government has a negligible effect on suicide rates.

Christakopoulou, Dawson and Gari (2007) identified [8] that policy makers need to have the information to understand fully specific areas and to establish comprehensive baselines against which future changes can be measured. If they are to identify appropriate interventions and target resources effectively, they need to have a clear picture of the community's strengths and weaknesses. Equally, a baseline that reflects the range of aspects that affect the community's situation and its prospects is a pre-requisite for tracking change and identifying impacts.

Boulding and Wampler [6] have stated that they are certain that participatory governance is made to enhance governance, citizens' empowerment, and the quality of democracy, creating a virtuous cycle to improve the well-being of the poor. However, there is limited empirical evidence for this relationship. Research has be done using drawing from an original database of Brazil's 220 largest cities, they assess whether the adoption of a participatory budgeting (PB) program is associated with changes in social spending or changes in several indicators of well-being. We find that PB municipalities spend a slightly higher share of their budget on health and education programs, but there is little evidence that this shift in budget priorities affects measurable outcomes.

Lien and Pettersen (Norway) in their research specified [14] that although it is difficult for local governments to give support for social welfare recipients top political priority, there



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are huge variations in the support recipients actually receive among Norwegian municipalities. However, local governments representing different political party ideologies may prefer to support different dimensions of generosity. Some municipalities could have a liberal attitude to eligibility rules but be strict on time limits and the amount of money provided. Others may be generous regarding time limits or amounts received once one is accepted as a welfare client. Data from the mid 1990s indicate the variation in support is related to different generosity dimensions for different party groups. While the total number of clients seems unrelated to politics and basically correlates with local social problems, the duration and amount of support are related to the political composition of the municipality assembly. Devoid of any large variation [14], both time limits and the amount of support increase in accordance with socialist leanings, and the total budget used for social welfare support also increases with the proportion of women in the municipality assembly.

The researches of well-being would help science, politicians, people and others answer to questions about differences in level of living standards among the world, about satisfaction or disaffection (even if level of living is the same from economical point of view), about migration, about political instruments that should be used etc. So it is going to be comprehensive assessment but still science needs to control it and make it realistic and possible to evaluate [10].

Baldersheim and Lawrence [5] in their research have analysed territorial choice: the politics of boundaries and borders and their influence on different life sides including municipality inhabitants well-being.

Kelly [12] in evaluation of school choice and student well-being have examined opportunity and capability in education – different sides of school choice, benefits and loses indicated better understanding of education markets and factors influencing of school choice on student well-being.

Martos and Kopp [15] have evaluated life goals influence on well-being and especially in detail studied - does the financial status matter on feeling of well-being. The results were used from a representative Hungarian sample and has proved the importance of intrinsic life goals (e.g. personal growth and relationships) influence on positive association with indicators of well-being, whereas an orientation toward extrinsic life goals (e.g. wealth and appearance) indicated connection with decreased positive functioning. Research results of a nationally representative cross-sectional sample of 4,841 Hungarian adults, has proved that after controlling for several sociodemographic variables intrinsic goal importance was in a positive relationship with subjective well-being and meaning in life, whereas the contribution of extrinsic life goals was weak to subjective well-being and negative to meaning in life. Moreover, no moderation effects were found by Martos and Kopp (2011) for indices of financial status, indicating that the relationship between life goals and well-being is the same for poorer and for richer respondents.

Krueger and his colleagues [13], by measuring the subjective well-being of people belonging to different nations have studied in detail the time use and well-being and came to conclusion on subjective well-being.

People in municipalities are different and municipality management need to take into account that inhabitants have different priorities and attitudes towards municipality management activities and to make the best decisions it is important to study inhabitants opinion and involve society in decision making.



Research Methodology

Salaspils Municipality is one of the eight project's partners in EU URBACT II program project "TOGETHER for territories of co-responsibility". The Municipality started active participation in this project in 2009; it was first experience when such significant part of society gets involved into large scale questionnaire and society involvement activities. The project "TOGETHER" aims at developing social inclusion and well-being for all. Its main hypothesis is that social inclusion and well-being for all may be difficult to achieve without strong cooperation between public authorities, citizens and private actors, in a co-responsibility approach. It facilitates exchanges of experience on the principle of co-responsibility and builds participatory methods based on well-being indicators. It also implements strategies and Local Action Plans through Local Support Groups established in each participating city [15; 16].

In order to improve the well-being of all and to avoid situations of exclusion, these project's partners use a methodology called *SPIRAL*, based on building indicators of well-being with the help of the citizens themselves and preparing and launching a Co-responsibility Action Plan from these indicators, drawing on the coordination of the Local Support Group. This methodology initially proposed by the Council of Europe within the framework of its Strategy of Social Cohesion is an on-going process of improvement to facilitate its application in different contexts [11].

The main participant in well-being evaluation is population in municipality that is represented by Local Support group which is formed by leaders of different NGOs, interest and religious groups. Method is very well in some point of views:

- People that represent the population of municipality participate all the time until Local Action plan is made on the base of well-being indicators;
- People not only answer to questions that is made before but they can nominate by themselves new indicators that are important in well-being in municipality;
- Population is fully representative because of homogenous groups who participate in making well-being indicators [12].

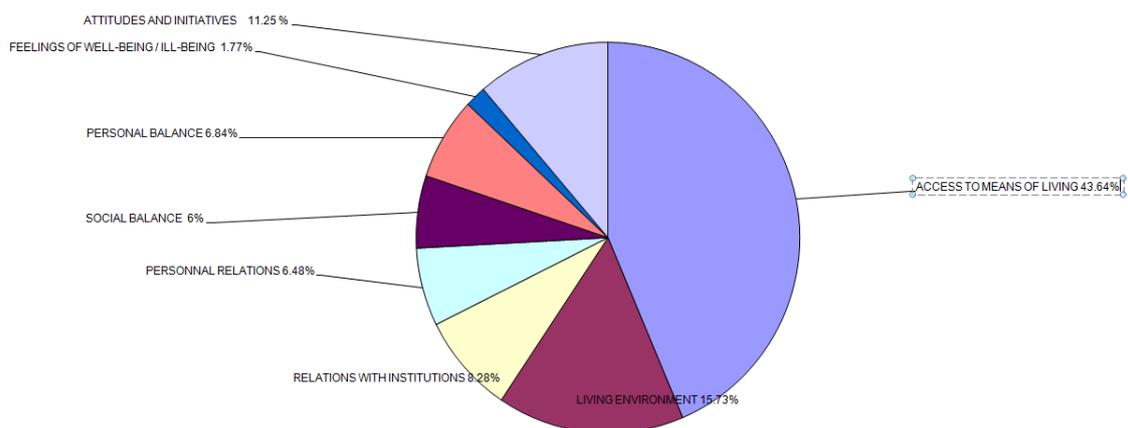


Figure 1. Indicators Synthesis in Salaspils (all groups) in 2011, %

Source: Results of Salaspils 25 homogenous groups – results gained from 3 meetings September, 2010 until May 2011 (from 2867 answers)



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After scientific literature studies about well-being theory and practice and statistical data analysis about the municipality, its population, social and economical situations next step of *SPIRAL* method is to collect well-being indicators through homogeneous groups representing various segments of the population. The summarized results are available in Figure 1.

Then is co-validation of classified indicators, afterwards Local Support group establishes pilot actions (projects) in areas that people consider as a priority.

The main developer of project in Salaspils municipality is the Development department of Council of Salaspils Municipality, while the University of Latvia provides technical, scientific and methodological support. Pattern of such co-operation has been developed also in many other countries and the results were surprisingly good. The experts from university ensured that all data were collected, analyzed and presented.

Main Results of Research

The most important part after forming well-being indicators was to choose possible actions that could improve the existing situation in different areas in the Municipality. This step would be focused in this paper.

After presentation and validation of indicators each of homogeneous group was asked to write down activities which particular group will realize. Then all responses were read off to groups and they had to collectively choose 2 activities for this year and 2 activities for next year which they agree to put into effect. Afterwards groups were asked to write down activities that municipality should put into effect. After reading off all activities and discussions each group had to choose priorities that the municipality should do this year and next year.

After summarization of all possible actions from homogeneous groups three main groups were created:

1. Actions that could be realized in context of *Urbact II* project;
2. Actions that could be included in Development Program 2012-2018 of Salaspils Municipality;
3. Actions that could be easily implemented (outside the *URBACT II* project).

It was extremely important to take into account as much as possible inhabitants' proposals/ suggestions otherwise they would lose trust in Council of Municipality. Each of possible action was discussed to find how to realize it and how realistic and sustainable it is.

The main principle to realize pilot action within the *Urbact* project was statement that pilot action should promote coordination between municipality of Salaspils, NGOs and population to prepare reasonable proposals for joint activities and problem solution.

After all discussions, there were formulated 7 different pilot actions where inhabitants of Salaspils and Council of Municipality would work together for well-being of all. These actions were divided in 2 groups:

1. Strengthening the informative links in Salaspils:
 - 1.1. Establishment of coordination centre for NGOs;
 - 1.2. Creating discussion forum or blog for all NGOs in Salaspils;
 - 1.3. Organization of wider distribution of local newspaper;
 - 1.4. Society information about science development in Salaspils;



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2. Public involvement activities:
 - 2.1. Organization of Salaspils City festival;
 - 2.2. Organization of Family day;
 - 2.3. Organization of International Day of Disabled Persons.

For every pilot action working group was created by *Urbact Local Support Group*. In every working group participated representatives of different NGOs and Council of Municipality who are usually responsible for actions like those. But it was stated that leader of working group must represent the NGOs or interest groups (not Municipality). In this way Municipality demonstrated in very considered way that opinion of inhabitants is very important to them and municipality is open to hear it and take it into account.

The working group is meeting at least once per two weeks to discuss the progress of activity. At the beginning the coordinator of the project had to communicate with each of member of working group to promote meetings and discussions, but after few meeting members were motivated enough to organize meeting by themselves and more often than it was planned before. Some of the groups were more active than others – it depends on the activity, on the leader of working group and other factors.

So far (the pilot actions were stated in June, 2011) the most active work group is working on society information about science development in Salaspils. It is quite surprisingly that in the begging the group was formed to inform society about environmental problems, but participants realized that they and Salaspils society in general do not know anything about 5 different research establishments that are located in Salaspils. That's why it is important to inform society about their activities and only afterwards to cooperate with them to address different environmental problems. Now working group has expanded – there are even several sub-groups who are working on concrete activities. As a result of those activities will be Science Week in Salaspils (in a future it could be even Science month). This action is fully supported by Council of Salaspils Municipality, because in Development program 2012-2018 of Salaspils Municipality strengthening of the concept “Salaspils – science city” has been put as a medium and long term priority. In addition to that this working group was also involved in preparing application for new project for further researches and practical solutions in cooperation possibilities between science, education and entrepreneurship in Salaspils Municipality.

Future Considerations

“TOGETHER” project ends in December 2012. There are scheduled activities until the end of the project that are financed and supported by the Lead Partner. But as it was found that this methodology works very well and shows real evidence that society involvement has been reached in significant level, it is stated from politicians that Municipality will use this model of involvement of Local Support Group in decision making and problem solving in municipality's work also after the project ensuring project's sustainability.

The main partner in decision making – Local Support Group – will regularly come together (around once a month/ two months) to discuss topical problems in Salaspils Municipality. During the meeting politicians and other responsible personnel will report about actualities in Municipality, listen to citizens' opinions and answer to their questions. The aim of Council of Salaspils Municipality is to ensure that all citizens of Salaspils would feel free to



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express their point of view about topical issues in Municipality and the most important – to take actions to solve the resulting situation in co-responsible manner. This also refers to the main target of the project “TOGETHER for territories of co-responsibility”.

In a future Council of Salaspils Municipality with experts from European Council will organize trainings for other municipalities in Latvia and abroad to share this experience and good practice in realizing *SPIRAL* methodology. As this was pioneer project in Latvia in using this methodology, in is expected that Salaspils case would promote using it across all country. Also it is planned after 5 years repeat the research using *SPIRAL* methodology to see in what areas/ fields has been made changes, if level of well-being of municipality has been increased.

Conclusions

The solutions that are needed for municipality development and society involvement cannot only be based on economic resources but should also take into account the citizens themselves for innovative solutions based on local needs. Academic research as well as practical research in Salaspils municipality has proved that great importance for decision making on municipality level has discussions in homogenous groups on understanding issues important for all in municipality. Discussions in homogenous or focus groups help to lead for preparation of joint plans for municipality development and society involvement and it makes need to think also about other interest and social groups in the municipality as well as develop decisions and make better links with the management of municipality.

The evaluation of well-being in society is not possible without asking people questions about their own opinions. So all around the world questionnaires are one of the most widely used method in social and also economical science to make estimations about society, level of living, institution work, purchasing power etc. Society involvement in preparation of real activity plans make the society be involved in decision making and be co-responsible for the best solutions for all municipality inhabitants.

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THE EFFECTS OF THE EXTERNAL QUALITY CONTROL ON THE AUDITOR MARKET IN GERMANY, LATVIA AND AUSTRIA

– With Focus on Small and Medium-Sized Audit Companies –

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Abstract

After numerous spectacular balance scandals in the United States and Europe an international discussion about the quality of audits as well as the necessity to rise the quality of financial audits arose [1]. After each scandal there was the question: “Where were the Auditors?” So the legislator has to react. The United States of America responded to this discussion with the “Sarbanes-Oxley Act” [2], while the European Union decreed the directive 2006/43/EC.

The mentioned directive updated the statutory provisions for the professional guild of auditors to increase the quality of audits. In detail it demanded an external quality-control-system combined with public supervision for the profession of auditors to ensure a better quality. Due to this fact the audit companies now have to fulfil a large range of requirements to provide evidence of their auditing-quality and furthermore of the quality standards within their company. Since many small and medium-sized companies aren’t able to fulfil these new requirements, the number of small and medium-sized audit companies decreases noticeably.

In my paper I will present the results of my research concerning the effects of external quality control – given by law – on the auditor market in Latvia, Germany and Austria focussing on small and medium-sized audit companies. Additionally I will examine, if the external quality control, which was one of the justifications of the conversions of the EU-directive 2006/43/EC, is able to increase the quality in audit companies at all or whether it is an overregulation for the profession, with disproportionate burden for small and medium-sized audit companies.

I. Introduction

After the spectacular balance scandals in the US and Europe, a discussion about the rise of the quality in financial audits has come up. Even the justifications of the conversions of the EU-directive 2006/43/EC talk about the rise of quality. If you want to take any measurements, which raise the quality of financial audits, it is necessary to determine who understands what is meant by the term “quality”.



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What is quality in financial audits? Does this definition distinguish from the sight of the contemplator?

To answer these questions the term quality needs to be defined first.

II. The Term Quality

1. Origin and Classification

According to its origin, it came from the Latin word “qualitas” [3], which means condition, characteristic, property or condition. Because of the different meanings of the words, it is to distinguish between the objective condition of an object and the subjective quality, which means how an object will be perceived and rating by the receiver [4]. Both dimensions of the term quality represent a unit [5].

So, my research starts with a review of the question “what is quality?” The business discussion of the question “what is quality?” is about with which criteria a product or a service can be evaluated [6]. So a part of the business literature holds the opinion, that fulfilling the expectations of the customers is the only right approach. So Peter Drucker [7] defines quality as “Quality in a product or service is not what the suppliers put in, it is what the customer gets out and is willing to pay for it.

So the author points out that there is no generally valid understanding of quality in businesses.

To answer these questions the term quality needs to be defined first. In order to give a detailed explanation on “what is quality” many definitions need to be taken into account. The most important definitions for this research were presented in a former paper, and so the author will now only report the results and will explain his own definition of the term quality, because it is important for the results of the research.

The different definitions are analyzed regarding to:

- Quality in Business Administration
- Quality in Services
- Quality in Audits
- Own Definition of Quality in Audits

The following focuses will only be on the definitions of quality in Audits and the author’s own definition of “Quality in Audits”.

2. Quality in Audits

After analyzing the concept of quality in services and business administration, quality in audits needs to be investigated more in detail for the purpose of this study.

In the last years there are a lot of discussions about the term “Audit Quality”. So according to Schmidt [8] that means that the quality of audits hinges whether the auditor is able to give a trustworthy judgment about the conformity annual financial statement computed on the basis of the accounting policies. “The quality of the final audit is the qualification of the annual auditor (meaning his ability and independence to judge) and accomplishment of action of audit (that means the appropriate judgment) for given a reliable audit judgment about accounts.” [9]



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It seems, according to Marten [10], that the term Audit Quality is understood as “synonymous for the compliance with requirements and statutes.” [11] For a long time, the receiver of the services of the auditors, the companies which are audited or the interested public, are not in the focus by the definition of quality in audits. [12]

One of the first who extended the term quality was Leffson. [13] He describes “quality as trustworthiness of the judgment which includes as essential component accuracy belongs.” Thereby however is assumed, that trustworthiness in the auditor’s judgment only can be evaluated by the receiver.

Dr. Anke Müßig searches for the definition of the term “quality”, as well. She comes to the conclusion, that in the case of financial audits, it is all about the fulfillment of expectations. [14]

So, to define what “quality” means for financial audits, you need to question whose requirements and expectations need to be fulfilled. Does a judgment about the definition distinguish from the sight of the observer?

Already at this point of the research it became clear, that an absolute definition of this term is not existent, because the subjective requirements of the service recipients for financial audits distinguish.

The auditor himself will define “quality” in another way than the enterprise that is been audited. Similarly the chief executive officer (CEO) does have another definition than the supervisory board.

For the auditor, quality means to perform the audit in a special expenditure of time and it means to reduce the risk of liability. For the profession of financial auditors “audit quality is not simply about following a rulebook of auditing standards and regulations (...). It is about professionals reaching the appropriate judgment in difficult and complex situations.” [15]

For the CEO or the management, as the receiver of the service “financial audit”, an audit with high quality is an audit that is run fast and without any problems, questions and discoveries.

In contrast to that, a supervisory board judges an audit positively if he gets the information fast and if the mistakes are cleared up fast. [16]

The public’s expectation for quality in financial audits is again to receive an audit which contents no mistakes and which they can trust.

These examples already show that the answer to the question what “quality” means for financial audits cannot be standardized.

Regardless this, new laws, communiqués and standards are decreed, just to raise the quality in the financial audit.

3. Own Definition of Quality in Audits

After analysing important aspects of the term quality according to business administrations, service quality and quality in audits, an own definition has to be determined.

To fulfil all expectations of the different receivers of audit services and to fulfil the own expectations at the own services a definition of audit quality a term must be found, that will be very broad. Because of the term must also take into account the regulations given by law and by the professionals it must consider aspects of product-based, of manufacturing-based and user-based approaches [17].



But because quality in audits must be more than only a addition of these three categories my own definition of quality in audit is, according to definitions of Kellner [18] and Feigenbaum [19] my own definition of quality is:

Quality doesn't rise by quality control but will rise when it will be the task of the whole audit company exemplified by the auditor and each employee. Quality must be the unique selling point (USP) of the audit company, every task in the company must be aimed to fulfill the set quality requirements for itself.

At the same time the auditor must keep his **independence**, and by considering of his professional duty creating values by his work, which will fulfill the expectations as well of the stakeholders as of the audited company.

The auditor has the responsibility but he must include his employees in the whole process.

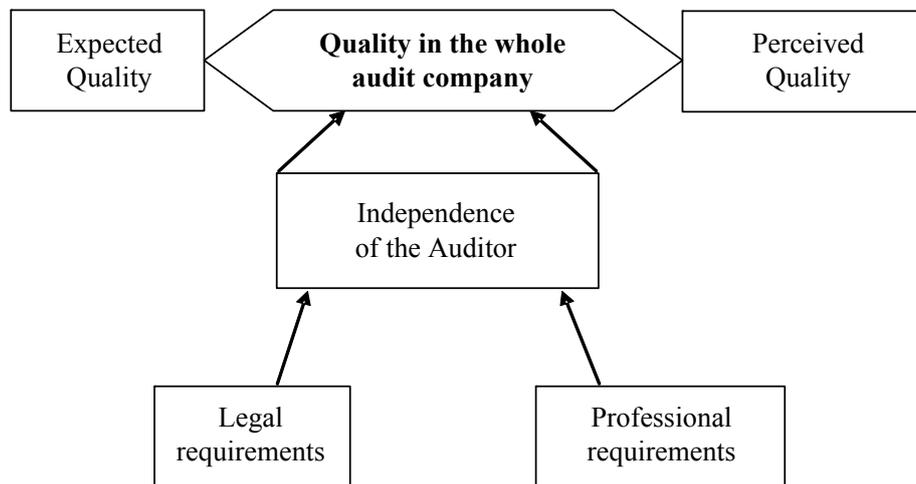


Figure 1. Own Definition of Quality in Audit Companies

3.1. Independence of the Auditor

To fulfill their statutory role and come to an objective judgement the auditor has to be completely independent. So, the independence of the auditor attaches the greatest importance for the quality of his work.

To be independent is the basis for the quality in Audits and in Audit Companies. Auditor's independence can be divided in "independence in fact or independence of mind" and "independence in appearance". If an auditor is independent "in fact or in of mind", she or he has the ability to make independent audit decisions, even if there is a perception of lack of independence or if the auditor is placed in a potentially comprising position [20].

But it could be, that even when the auditor is "in fact" independent, that there are some facts, that may the public believe, that the auditor does not "appear" to be independent. So it may be, that users of financial statements believe, that they cannot rely on annual audits of financial statements [21]. So, the perception of the public and the users of financial statements is



also an important consideration in the auditor independence discussion. It is necessary, that a reasonable third party recognizes that there are no conflicting interests which will prejudicial to auditor's independence [22].

Auditors have a legal systemically relevant task, they have the obligation to report deficiencies and a warning function. And because the goal of auditor independence is to support reliance on the financial statements, auditors must be independent "in fact" as well as independent "in appearance".

III. Results of the Research Questions

1. Aim of the Study

Aim of the study is a critically deal with the external quality control, which is dictated by the law, and its effects on small and medium-sized audit companies. This topic is of paramount importance for such audit companies. The empirical analysis shall approve some statements about the ability of external quality control as an instrument to raise the quality of smaller audit companies or audits in general or whether it is an overregulation for the profession, especially with disproportionate burden for small and medium-sized audit companies, so that the actual organization of the system endangers the smaller companies.

Another question is, completely in conflict to the literature of audit quality who believes, only big companies are able to execute audits right [23], if small and medium-sized companies and chancelleries anyway guarantee a higher level of quality.

2. Development of Hypothesis

The following theses should be proved empirically:

- H₁: The audit quality in small and medium-sized audit companies is as well as in the big ones.
- H₂: Extern Quality Control does not rise the quality of an audit.
- H₃: High degree of formalization of audit controls has only limited impacts on their quality, if relevant procedures remain undone.
- H₄: Because of different structures, extern quality control has to be designed in a different way for small- and medium-sized companies.
- H₅: Small and medium-sized audit firms are more and more less willing to face the higher requirements of the professional supervision.
- H₆: A "Two-Class audit company landscape" arises.
- H₇: The survival of small and medium-sized audit companies is acutely endangered by the professional supervision and the higher degrees of regulation and formalization.
- H₈: Because of the tide of regulations, the profession of Accountants erases more and more from an independent profession.

3. Empirical Methods of Research

The research questions and hypothesis were analyzed scientifically and proved – to the current state only in Germany – with several expert interviews with different expert groups in Germany. With these interviews it should be shown, whether the extern quality control has had



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influence on the auditor market in the last years and if it was and is able to increase quality in audits and audit firms. It also should show what's about the independence of the auditors, and whether the earlier fixed hypothesis could be proved.

The groups include representatives of the auditors themselves, the professional representatives, the professional consultation and representatives of research and teaching.

Because the purpose of the data collection should be concrete statements the expert interviews were designed as open-guideline interviews, as most economically way [24]. It is typical for open-guideline interviews, that they based on open-formulated questions. To this the respondents can answer in a free way. A consistent use of the guideline will improve the data comparison and the data gets a structure by the questions [25]. A most important reason to make guided interviews is that they fulfill the demand for qualitative research [26].

Expert-interviews are a specific form of applying semi-structured interviews. "If expert interviews are used, mostly staff members of an organization with a specific experience and knowledge are target groups." [27]

4. Results

The **first hypothesis**, that audit quality is in small and medium-sized companies is as well as in big ones, is affirmative by all experts. They stated that auditor's of companies which were involved in balance scandals were never auditor's from small or medium-sized companies, it were always auditors from the "Big 4" Audit firms or other big audit companies. So, the statement, that a big audit company has more knowledge about accounting standards and more knowledge of the trade, only because they are big, is to disagree energetically.

On the contrary of that was the meaning of the respondents, that small and medium-sized audit companies guarantee a higher level of quality because the owner of the office is involved in every audit, in every process and he is engaged personally in every single audit.

Furthermore it is very important for small- and medium-sized audit companies to guarantee a high quality so they can resist against bigger firms in the market. Chancellery-owners are liable in greater dimensions than big audit companies. The owner of a small audit company is liable with his name, so they have a different awareness for quality.

Extern Quality does not rise the quality of an audit (**hypothesis two**), when the owner of the audit firm is not able to "live quality" during the whole audit process, in his whole company and with all his employees. For the same reason high degree of formalization of audit controls has only limited impacts on their quality (**hypothesis three**), if relevant procedures remain undone and the auditor does not realize it.

Most of the respondents are the opinion that there must be a different way, a different process to control the quality in small- and medium-sized companies compared to big audit companies (**hypothesis four**). There are different structures, different working methods and direct ways of information.

Because of different structures and because of a quality which is in small and medium-sized companies as good (most said better) as in big companies, the owner of small- and medium-sized companies wants requirements which are specially designed to meet their needs (**hypothesis five**).

The view of the development on the audit and auditor market shows, that within the last 20 years some large audit firms have grown to even larger ones, which means that there are just



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a few firms that are able to perform audits of large and complex companies. If one of these firms collapses, there would be an enormous damage in the investor's confidence – which will lead to an even bigger damage for the stability of our financial system. These audits firms have reached, as some call it, “Systemic proportions”. So the respondents see the risk, that there will arise a “Two-class audit company landscape”, because small and medium-sized companies will be less and less able to fulfil the requirements and high degree of formalization of audit control (**hypothesis six**).

That is also the reason, the respondents see, why the survival of small and medium-sized audit companies is acutely endangered by the professional supervision and the higher degrees of regulation and formalization (**hypothesis seven**).

Auditors have a public function, the independence of the auditor is the most important element for his judgement and his work and hence for the quality of his work. Interviewed experts expressed the fear, that, because of the tide of regulations and the high degree of formalization, the profession of the Accountants erases more and more from an independent profession (**hypothesis eight**).

VI. Conclusion

The above remarks have shown, that there are a lot of different definitions of quality and audit quality in the existing research. But there is no one-size-fits-all definition or approach what quality in audits or audits firms is, because the respective reviewer always define quality as he define it from his side of view. So an own definition of quality in audits has to be determined.

A further consideration is, the “Big Four” audit companies, supported by the science [28], occupy quality in audits only for themselves [29], could be refuted. Exactly the opposite is in case, especially in small and medium-sized audit companies quality is particularly high, because of the owner of the company is leads in every audit himself and often assumes the personal liability for his work, his company and for his employees.

Next steps for research will be to make the expert interviews in Latvia and Austria to see, whether there are different results.

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THE IMPACT OF PERSONALITY TRAITS AND BEHAVIORAL PATTERNS ON THE OUTCOMES OF BUSINESS MANAGEMENT DECISION MAKING

– A Framework for an Empirical Study –

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Abstract

Since decision making behavior has been in the focus of business management, both from a scientific and a professional position, there seemed to be a dispute whether rational or intuitive decision making leads to better outcomes. By now scholars agree that effective organizations do not have the luxury to choose between intuitive and rational decision making. Instead, they try to understand how different factors like personality and problem characteristics influence the decision making process. Reviewing the literature reveals that, the personality predetermination and the structure of problems (e.g. well-structured problems versus ill-structured problems) seems to have a significant impact on the decision making efficiency. Further, the review reveals that there is a lack of application oriented empirical studies in this area of research. Therefore the aim of this research paper is, to propose a framework for an empirical study on how personality and problem characteristics influence the decision making process. First, hypotheses are derived from the literature on how personality predetermination and behavioral approaches in the decision making process lead to higher social-economical efficiency within certain problem categories. Second, a causal model and a setup for a laboratory experiment are proposed to allow testing the hypotheses. Finally the conclusion provides an outlook how this research could support organizations in the decision making process.

Introduction: Research in Decision Making Behavior for Management Decisions

By now scholars agree that effective organizations do not have the luxury to choose between intuitive and rational decision making [1, p. 329] [2, p. 139]. Instead to understand how different factors like personality [3] [4] [5], task characteristics [6] [7], the decision making context [8] [9] and decision characteristics [10] [11] influence the decision making process. Sinclair & Ashkanasy [11] created a model which assumes that the behavior oriented decision making process is affected by four broad categories: 1. problem characteristics, 2. decision characteristics, 3. personal disposition, and 4. decision making context. These four categories



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again include sets of factors which characterize more closely the content of these categories. Sinclair's & Ashkanasy's model seems to provide a vital basic foundation of the different issues that need to be addressed to give a more complete picture, when trying to explore the behavior oriented decision making process more in detail. Out of the set of factors which Sinclair & Ashkanasy have listed in their model, the personality predetermination/cognitive style [3, p. 119] [12, p. 103] [13, p. 162][4, pp. 330-331] [14, p. 4491] [5] and the ambiguity or the problem structure [15] [16] [17, pp. 18-19] [18, p. 67] [19] seem to be two of the contributors which have a significant impact on the decision making efficiency.

Like a lot of theories in this field, the model of Sinclair & Ashkanasy [11] proposes valuable theoretical advice. But it lacks to provide an application oriented approach which supports organizations to build a framework to give advice when it is more favorable to use a rational or intuitive approach in management decision making.

Therefore the aim of this paper, on the basis of relevant literature is, to determine how personality, behavioral approaches (intuitive versus rational conduct) and the ambiguity of problems influence the socioeconomic efficiency outcomes in business management decision making. In compliance with Popper's "The Logic of Scientific Discovery", scientific research is not just comprised of the formulation of cause-effect hypotheses, but also of the attempt to empirically substantiate and/or falsify the respective assumption [20, pp. 16-17]. Therefore a research design for an empirical study is also introduced which enables to falsify or support the hypotheses under "real conditions".

Intuitive Versus Rational Decision Making – Theoretical Background

The work of Jung [21] and Westcott [22] indicates that intuitive or rational types share distinct personality characteristics. Jung differentiated human behavior into four mental functions and two attitudes, allowing him to describe different types of people. He differentiated the four mental functions into sensing and intuitive types related to their preference on how they perceive information and into thinking and feeling types related to their preference on how they make judgments. The more "romantic" view [3, p. 122] [1, p. 114] [23, p. 109] [24, p. 286], that formal business planning relies on the left brain hemisphere's sequential-logical processes, whereas the less formal intuitive and creative aspects of management are accomplished by the right hemisphere, cannot be derived from psychological research [2, p. 132]. This view is also supported by neuroscience research [25] [26] as the activation of certain areas of the brain can be measured by using functional magnetic resonance imaging while working on intuitive tasks. But those areas are not necessarily located in the right hemisphere of the brain. Westcott found in his study that extreme groups to his measure had "distinguishing and coherent patterns of personality" [22, p. 148]. Woolhouse & Bayne [27, p. 160] see the difference in the level of the use of intuition in the nature of peoples exiting associations between words and concepts. The main findings in the study of Shoshana et al. [28, pp. 425-426] support the evidence that an intuitive or rational approach in decision making can be related to personality traits or cognitive styles. Within their study they show that participants with a rational thinking style were more related to normative judgements and participants with intuitive thinking style were more related to heuristic judgements. According to the Cognitive-Experiential Self Theory [29, p. 159] human beings operate on two fundamental information processing systems. The experiential



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system which operates mainly on an unconscious level relates to experiences which have been built up in the past. The experiential system can be characterized as automatic, rapid, effortless, associative and holistic. Although the experiential system is a cognitive system it derives beliefs from emotional experiences [30, p. 121]. In contrast the rational system operates predominantly at the conscious level in an analytical, effortful, affect-free and relatively slow manner while demanding high cognitive resources [29, p. 161]. The rational system is more process orientated, logical-reason orientated and requires justification via logic and evidence. The rational system seems to be more suitable when analytic approaches are needed or considerations for long time consequences are at stake [30, p. 123]. Alter et al. [31, p. 575] support the view that people make different decisions based on their personality whether they adopt a rational systematic processing or if they rely on intuitive and heuristic processing. From their empirical study they provide evidence that when people experience difficulty or disfluency this leads them to adopt a more rational approach in information processing.

Dijksterhuis et al. [32, pp. 1005-1007] found in their studies that participants facing simple decision making situations performed well when taking a conscious, deliberate thought where as participants facing a complex decision making situation performed better when taking unconscious, intuitive thoughts. The study also showed that post choice satisfaction was greater in simple decision making situations when decision makers had taken a deliberate, rational approach. Whereas, for complex decisions the decision makers experienced greater post choice satisfaction when they had taken unconscious approaches. For Shapiro & Spence [18, p. 67] the approach of the decision making process (intuitive versus rational) depends on the nature of the task (e.g. structured or unstructured). For them tasks having a more structured nature like accounts receivable, order entering and inventory control are conducive to analytical reasoning because they have typically well-accepted decision rules. Other tasks with less structured problems like mergers and acquisitions, new product planning and corporate strategy formulation are typical for the use of intuition. Van Riel et al. [17, pp. 18-19] support this view that the decision tasks varies with the structure of the decision. They also concluded that well structured problems call for a rather rational approach as decision makers can make rational calculations. In turn, for them, ill-structured problems are not for rational decision making as they are characterized by a high degree of uncertainty about the actual and the desired situation and therefore do not have a base for rational calculations. A further major condition for the nature of the task can be the complexity of the decision making context. Problem complexity can overstrain the physical constitution of our brain and therefore rational decision making can experience great difficulty when dealing with complex problems. Conscious thoughts in this case suffer from low capacity making it less suitable for very complex problems [32, p. 1005] [17, pp. 19-20] [7, p. 236]. Dane & Pratt [6, p. 41] see the problem characteristics as one of two factors which influence the intuitive effectiveness. They postulate that the more increasingly unstructured the problems get the more effective intuitive judgment becomes versus rational analysis. For Dane & Pratt [6, p. 45] ill-structured problems are conducive to the intuitive decision making process because of the absence of well accepted decision making rules. In a more general sense there are various existing conceptualizations of problem structures. At first, there is the clarity of the problem's goal state. If the goal is not adequately specified this can produce a weakness in the structure and therefore can result in an ill-structured problem. Further, the problem structure can be conceptualized by how well it can be formulated explicitly



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and quantitatively and how it then can be solved with well known techniques. In this sense the structure of the problem can be determined on the degree of clarity which the decision maker gets from his task. Next, the problem structure also can be conceptualized by the process. In this case a problem is ill-structured when there is no effective solution procedure to solve the problem. In the case of a well-structured problem the problem may still be difficult but there is a clear procedure on how to solve it. Finally, the structure of the problem is linked to the knowledge of the problem solver. A problem can be well-structured if the problem solver is familiar with the knowledge needed to solve the problem or, in contrast, the problem can be ill-structured if the problem solver does not have adequate knowledge of the problem. In this case, regardless, of the initial description of the structure, it is the behavior of the problem solver making the ascriptions to the structure of the problem [33, pp. 1492-1497]. Joanssen [15, p. 66] therefore clusters problems into three kinds: puzzle problems, well-structured problems and ill-structured problems. Puzzle problems for him are well-structured, have a single correct answer and all elements which are required for the solution are known. Well-structured problems for him require the use of a limited number of concepts, rules and principles, a well-defined initial state, a known goal state and a constrained set of logical operators. In contrast ill-structured problems are typically in a specific context where one or more aspects are not well specified.

Outcomes or results in decision making in business management can be characterized by different dimensions of efficiency. For Gzuk [34, p. 5], to achieve efficiency in the decision making process there are two conditions which need to be fulfilled: First, a decision must realize the most efficient ratio between output and input and second, a decision must bring results which ensure that the aimed objectives will be achieved. To determine and to measure efficiency in the decision making process for Gzuk [34, pp. 54-57] it is therefore necessary to split the total construct of efficiency into single dimensions. He advocates for three components which allow describing the dimensions of efficiency the best: The first component is described by the target of the process or the object, the second component by the input which means what resources are allocated to the process or the object and the third component the output which stands for the result of a process or the object. This brings Gzuk [34, p. 57] to a multi-dimensional model. Using this multi-dimensional model allows Gzuk to measure various single efficiency dimensions and then by combining them, to determine the total efficiency. Neuert [4, p. 115] supports this view, by describing as one dimension the material efficiency where the measurement is a realistic input and output in commercial activities which can be measured with objective criteria like earnings, profitability, growth and independence. Bronner [35, pp. 39-40] refers to this part of efficiency as the economical efficiency. In contrast, for Neuert [4, p. 117], in addition to the material efficiency, the personnel efficiency has rather subjective results on the decision making processes. As subjective results he understands expected team results like identification with the team work, self reflection of the group behavior and the individual role within the group. In summary he characterizes the personnel efficiency as the subjective evaluation of decision makers, concerning their results of the decision making process as to their self reflection on their behavior during the decision making process. For Bronner [35, p. 40] it is not possible to measure the personnel efficiency on an objective base. He advocates measuring it via the personal activity of the decision maker within a decision making process. As a third dimension Neuert [4] sees the formal efficiency, which characterizes the comparison of the aimed target or the desired situation with the current situation. In this sense a higher coincidence between the targeted and the current



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state/situation indicates a higher efficiency and in turn a lower coincidence between the targeted and the current situation which indicates lower efficiency.

Personality predetermination/cognitive styles are mostly measured by psychological self report instruments. Some of the most well known and most used measures for the cognitive style or intuitive/rational behavior [36, p. 15] [37] [38, p. 17] [39] [5] [40] [27] include the Cognitive Style Index [3], the Agor Intuitive Management Test [41], the Rational-Experiential Inventory [42] and the Myers-Briggs Type Indicator [43]. The Cognitive Style Index (CSI) was designed by Allinson & Hayes [3] to assess individual preferences on information processing. It distinguishes between two different cognitive styles: an intuitive style which emphasizes feelings, openness and global perspective and an analytical style which emphasizes reasoning, detail and structure. With a relatively small amount of items (38 items with 3-point ratings) the CSI is convenient for administrating within large scale organizations. To test the use of intuition in management decision making Agor [41] started in 1981 testing executives from a wide range of organizations with the Agor Intuitive Management Test (AIM). The AIM is a self report questionnaire including two parts. The first part reflects the ability to use intuition and consists of twelve questions which were taken from the Myers-Briggs Type Indicator (MBTI[®]). Depending on the answer of the questioner the first part gives an indication on the preferred cognitive style (intuitive or rational). The second part of the AIM test consists of ten questions and measures the actual use of intuition. Epstein introduced with the Rational-Experiential Inventory (REI) a measurement to assess the preference for rational versus intuitive thinking on the basis of the Cognitive-Experiential Self Theory (CEST) [42]. The REI distinguishes between two cognitive styles: a rational style which is measured by items being adapted from Need for Cognition (NFC) scale [44] and an experiential style which is measured by the Faith in Intuition scale. These scales are again divided into subscales of ability and favorability. The ability subscale reflects the individuals' belief in their ability on using rational or experiential thinking and the favorability subscale reflects the preference to engage in this kind of information processing [5]. The Myers-Briggs Type Indicator (MBTI[®]) is one of the widely used measures of intuitive traits [39]. The MBTI[®] is a self-reported personality construct which is based on the Jungian theory [21]. The MBTI[®] identifies basic preferences on four dichotomies. Those basic preferences describe different ways of how people perceive information (Sensing-Intuition dichotomy) and different ways of making judgments (Thinking-Feeling dichotomy) in combination with different attitudes (Extraversion-Introversion and Judging-Perceiving dichotomy). From a theoretical point of view there are two mental functions, the Sensing/Intuition (S-N) scale which measures the holistic nature of intuition and the Thinking/Feeling (T-F) scale which measures the affective nature of intuition [5]. The MBTI[®] identifies 16 different personality types which result from the interactions between the four dichotomies [43].

Hypotheses for the Decision Making Behavior and Efficiency Outcomes in Management Decisions Making

When taking the theoretical background into account, it seems that individuals facing simple decision making situations perform well when taking rather conscious, deliberate thoughts where as participants facing complex decision making situations perform better when taking unconscious, intuitive thoughts. There seems to be a clear link between the cognitive style and the



structure of the problem. The more increasingly unstructured the problems get the more effective intuitive judgment becomes versus rational analysis. Ill-structured problems therefore are conducive to the intuitive decision making process because of the absence of well accepted decision making rules and vice versa [6] [32]. Intuitive behavior can be characterized as automatic, rapid, effortless, associative and holistic, using heuristics to solve problems which leads to the conclusion that intuitive behavior seems to be more appropriate and therefore more efficient when solving ill-structured problems. In contrast, rational behavior can be characterized as process orientated, logical-reason orientated and requires justification via logic, using analytic approaches to solve problems which leads to the conclusion that rational behavior seems to be more appropriate and therefore more efficient when solving well-structured problems.

Based on this conclusion the following hypotheses are formulated:

- H₀: Intuitive behavior in the decision making process leads to higher socioeconomic efficiency within certain problem categories
- H₀₁: Intuitive behavior in decision making process leads to higher efficiency within ill-structured problems than rational behavior
- H₀₂: Complimentary intuitive and rational behavior in the decision making process leads to a higher efficiency in mid-structured problems than sole intuitive or rational behavior
- H₀₃: Rational behavior in decision making processes leads to higher efficiency in well-structured problems than intuitive behavior
- H₀₄: Rational behavior in decision making processes leads to lower efficiency within ill-structured problems than intuitive behavior
- H₀₅: Intuitive behavior in decision making processes leads to lower efficiency in well-structured problems than rational behavior

Causal Model for the Empirical Investigation

Based on the theoretical background and on the hypotheses, a path analyses is used to select the relevant causal factors and to establish the relationships between the independent and dependent variables, allowing then the setting up of a causal model (Figure 1). The latent exogenous measurement variables x_1 , x_2 , x_3 and x_4 provide information about the nature of the latent exogenous independent variable X (personality predetermination). The independent structural variable X influences the intervening variables $Z_w \dots Z_i$ and the dependent $Y_w \dots Y_i$ variables. These dependent variables ($Y_w \dots Y_i$) again are operationalized and measured by the latent endogenous variables $y_{w1} \dots y_{i3}$.

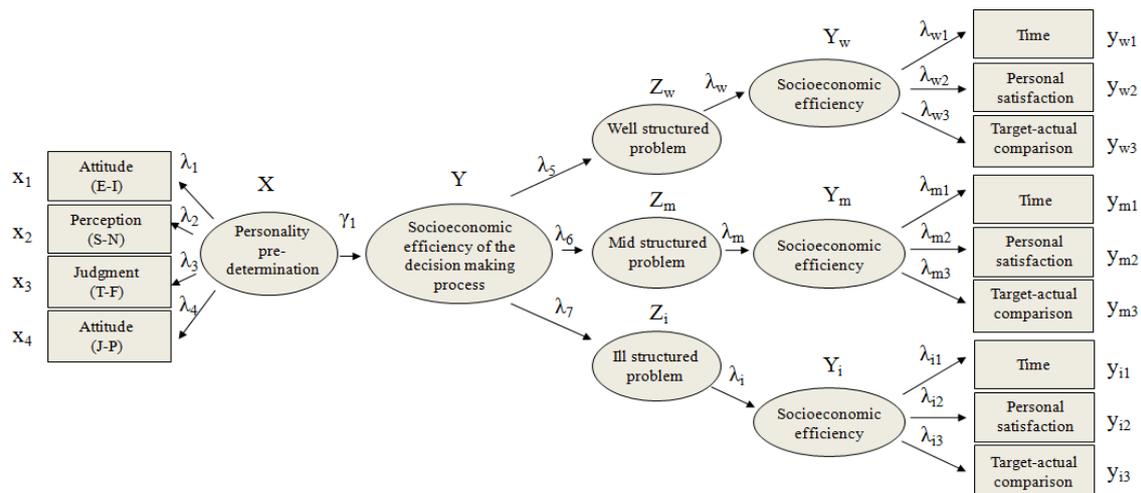
The Myers-Briggs Type Indicator is chosen for the determination of the personality/cognitive style, as the MBTI[®] has proven to be a valid and reliable instrument as many studies have been published. And especially because the MBTI[®] shows strong relationship with four out of five scales of the big five model of personality, measured by the NEO-PI [45]. According to Jung's [21] and Briggs Myers et al. [43] theory, the four dichotomies will be used to assess the personality predetermination. The intervening variable (Z), the problem structure, is operationalized by devoting three different kinds of structures with the well-structured problem (WSP), the mid-structured problem (MSP) and the ill-structured problem (ISP). Based on the theoretical background the three different structures (WSP, MSP and ISP) are characterized by the following definitions. **Ill-structured problems (ISP)** can be specified by the following elements: 1) goals are defined vaguely



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or not at all, 2) the problem description is not clear or well enough defined, 3) has no single objectively correct solution, 4) information to solve the problem is not within the problem statement, 5) the problems are in a special context where one or more aspects are not specified, 6) in between-domain transfer capabilities are needed, 7) there is no execution program or algorithm available to solve the problem in a routine, and finally 8) solutions may not be final, rather a plan is put in place to find out if the solution works in reality based on the implementation and evaluation. Problem solving in this case becomes an iterative process. In contrast **well-structured problems (WSP)** can be specified by the following elements: 1) have well defined initial state and well defined goals, 2) have a single correct answer, 3) all elements which are required for the solution are known, 4) problem solving requires using rules and strategies like logical, algorithmic processes which ensure a correct answer, and 5) the current state of the problem can be consistently compared with the goal state. For **mid-structured problems (MSP)** the following definitions are adopted: 1) have a defined initial state, 2) goals are known, but as information, findings and data might be implicitly embedded in the problem and must be formulated and found by the individual, 3) require the use of a limited number of concepts, rules and principles, and 4) knowledge of skills of how to solve well-structured problems is needed (metacognition).



Legend of the causal model:

- X = Independent structural variable (Personality predetermination)
- Y = Dependent structural variable (Socioeconomic efficiency of the decision making process)
- $Y_w \dots Y_i$ = Socioeconomic efficiency of the decision making process depending on the problem structure (well-structured, mid-structured, ill-structured)
- $Z_w \dots Z_i$ = Intervening structural variable (structure of the problem)
- $x_1 \dots x_4$ = Latent exogenous measurement variables (personality predetermination)
- $y_{w1} \dots y_{i3}$ = Latent endogenous measurement variables (socioeconomic efficiency)
- γ_1 = Correlation degree between the latent exogenous and latent endogenous variable
- $\lambda_1 \dots \lambda_{i3}$ = Correlation degree between the structural and measure variable

Figure 1. Causal analytical model for the relationship of personality traits, behavioral approaches and socioeconomic efficiency in decision making



The determination of the socioeconomic efficiency can be accomplished by various constructs. Especially the choice of the efficiency dimensions is always related to the judgment of the observer. To operationalize the dependent latent endogenous variables the socioeconomic efficiency will be split into three dimensions: the formal efficiency, the material efficiency and the personal efficiency [4, p. 114]. By definition the decision making process can be understood as a target orientated process (target-output relationship) where from a current/actual state we aim to reach a future/target state. In this sense the decision making with its various sub processes can be seen as a formal instrument for solving problems by taking choices when selecting between alternatives [34, p. 24]. The comparison between those alternatives can be described as formal efficiency. The level of formal efficiency can be determined by comparing the aimed target or the desired situation with the current situation. The material efficiency in decision making relates to the economic results and can be understood as an input-output relationship of corporations which is measured by criteria like profit, growth, rate of return, etc. Management science has created a series of key indicators to display the material efficiency in decision making. Mostly these are measures which indicate economical activities as input-output relationships with performance indicators like profitability, cost and returns or cost and benefits. The formal and the material efficiency deal rather with the “hard facts” and reflect more the economical and therefore the objective detectable and reproducible side of decision making. The personal efficiency reflects more the social psychological and subjective part in decision making and therefore deals with results which can be considered as “soft facts” and are related to the emotions, feelings, acceptance and satisfaction of individuals.

Research Method for the Empirical Investigation

The assessment of the personality predetermination by the MBTI[®], which will also reflect the behavioral aspects of our hypotheses, will be done before the laboratory experiment. This will allow the pre-selection of the participants in accordance with their personality/cognitive style (rational versus intuitive decision making styles). Within the laboratory experiment the participant will receive one out of three tasks with a dedicated structure (well-, mid- or ill-structured problem) and will be asked to solve the problem according to the description of the problem statement. This will allow testing every one of the three problem structures with participants having rational and intuitive decision making styles (Figure 2).

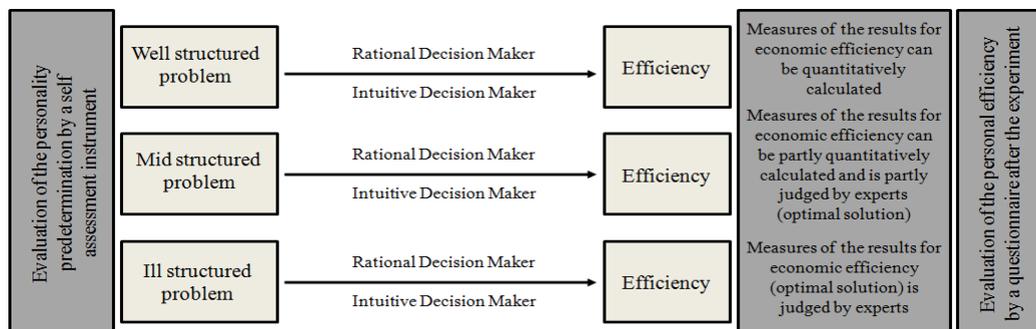


Figure 2. Structure of the empirical experiment



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According to the causal model (Figure 1) the time (also as an indirect indicator for costs) will be the measurement variable to track the material efficiency dimension. So the time consumption to fulfill a certain task will provide information about the material efficiency. The formal efficiency will be tracked by comparing the results of problem solutions of the participants to the “optimal results”. As the well-structured tasks, by definition, are tasks which can be solved quantitatively by a mathematical algorithm, the indicator for an optimal result for a well-structured problem task will be a correct figure done by a calculation. For the ill-structured tasks where by definition the problem constellation cannot be calculated by a mathematical algorithm and might not have an objective result, the optimal result will be determined by the judgment of experts. For the mid-structured problem tasks, which are characterized by having a part within the problem structure which can be determined by a calculation and another part which might have no objective solution, the optimal result will be a combination of both, a calculation of a figure and a judgment of experts (Figure 2). The personal efficiency will be tracked with a questionnaire after the participants have finished their problem solving task. A questionnaire was chosen as a data gathering method for personal efficiency measurement; as in this case personal attitudes (like satisfaction, self reflection, etc.) are hard or almost impossible to track by observing participants in an empirical experiment.

Conclusion – Next Steps

Theoretical implications from a literature review give clear evidence that individuals facing simple decision making situations perform well when making conscious and deliberate thoughts. Whereas participants facing complex decision making situations perform better when making unconscious, intuitive thoughts. Theory establishes here a clear link between the cognitive style and the structure of the problem. The more increasingly unstructured the problems get the more effective intuitive judgment seems to become versus rational analysis. Ill-structured problems therefore are conducive to an intuitive decision making process due to the absence of well accepted decision making rules and vice versa [6] [32].

To proof these theoretical implications in a next step an empirical study according to the proposed setup (Figure 2) should be conducted and evaluated by the causal model (Figure 1). This allows falsifying or supporting the hypotheses and provides a deeper insight if these theoretical implications can be transferred into application orientated approaches.

If the hypotheses are supported by the empirical experiment, this could in a further step allow to build an application orientated approach for organizations on how to use problem type categories as guidelines to advice when to use intuitive, rational or complementary approaches in the decision making process. This could support organizations having clearer specifications and more security when it comes to delegation of decisions. Organizations could also introduce intuitive judgments as a part of their decision making culture without running the risk of having decisions made by random selection of choices.

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ASSESSING MOTIVATION FOR SMALL BUSINESS DEVELOPMENT

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Abstract

Motivation has been studied in academic research as it is one of the key factors for business development. The motivated employees do work better with greater enjoyment they are creative show initiative and are loyal to enterprise. This article explores how the role of motivation in small business performance evaluate owners and managers, how employee motivation affect business.

Results of survey of 1464 entrepreneurs are used for data analysis, as well as performed structured interviews will be used to develop more detailed questionnaire for fundamental research of motivation impacts on small and medium size enterprises development. Research methods used: academic publications analysis, survey of entrepreneurs, structured interviews of entrepreneurs. For data processing used methods: descriptive statistics – indicators of central tendency or location and indicators of variability, correlation analysis, analysis of variance, factor analysis.

Researches results have indicated that external environment, motivated, educated employee, skilled manager, innovation management have significant impact on enterprises innovativeness. Still there were managers who didn't pay enough attention on employees motivation.

1. Introduction

Small and medium size enterprises (SME) have a significant role in economy growth and employment in the Latvia. SME in Latvia in 2010 were 99.7% of all economically active statistical



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units [1]. It is important to establish factors that significantly influence existence and development of SME. In the light of the theoretical findings, it is important to study work motivation in SME. The aim of the study is to research how SME managers evaluate the role of motivation in their business and examine work motivation impact on business development. For empirical research it was approached entrepreneurs of SME: systematic sample was used – it means that for analysis it is possible to use methodology for random samples. The results of the survey of 729 entrepreneurs are used for data analysis (total number of complete questionnaires was 1464, only 729 respondents gave answers to all research questions), as well as performed structured interviews will be used to develop more detailed questionnaire for fundamental research of motivation impacts on small and medium size enterprises development. Research methods used: academic publications analysis, survey of entrepreneurs, structured interviews of entrepreneurs. For data processing used methods: descriptive statistics – indicators of central tendency or location and indicators of variability, correlation analysis, analysis of variance, factor analysis.

2. Theoretical Background

As there is great importance of SME contribution for national economies all around the globe, great attention to those problems are paid also in academic research where different aspects, including motivation for small business development are covered. Academic research results prove that an essential feature of any successful organization is motivated employees. Lundberg, Gudmundson and Anderson have researched, how two factor theory of work motivation influence workers and have discovered that the extent to which an employer is able to motivate employees is important for the overall success of the organization [2]. Managers can increase employee productivity and improve job satisfaction through effective motivation; one of the challenges of managers is know what incentives will stimulate them to perform [3]. There is a significant and positive relationship communication effectiveness and motivation [4]. Motivation does not guarantee high performance, but it is very unlikely that high performance will occur without motivation [5]. The research results in construction industry show that workers can be more innovative as well as creative if they are encouraged by their leaders and superiors. Motivated labour and workers can make changes in the industry and ameliorate it [6].

According to Euro Personals and Latvian Association of Personnel Management (LAPM) research “Employee engagement research, 2011”, 51.8% employee not completely involve to achieve organization objectives, employee assessed motivation in their work places on average by 4.3 points (in 1 – 6 point scale) [7].

There are lot of scientific researches that focuses on the outcome effects of employee involvement in organizations, argue that involvement of employees and managers is beneficial to organization outcomes but there are comparatively little researches how motivation influences SMEs outcomes in time of economic crisis.

Both motivation and communication are central to the idea that employee involvement produces higher satisfaction and productivity. The academic research has shown that need satisfaction play a central role in the process from autonomy support to work motivation and job performance. Manager's interpersonal orientations related to the satisfaction of three basic needs autonomy, competence, and relatedness were positively linked to work motivation and job performance. Thus when managers keep in mind the needs of their subordinates, they ought to be



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able to provide the conditions that will allow need satisfaction and lead to positive work outcomes. The study indicates that managers may need to be more autonomy supportive in their attempts to promote positive work-related outcomes like work motivation and job performance [8]. Autonomy orientation positively predicted self-determined work motivation, which in turn predicted job satisfaction and identification commitment [9]. The research results in Sweden and Russia provide support for the fact that national culture also plays an important role in determining what motivates people [10]. Research results of Liu, Combs, Ketchen and Ireland helped to develop main recommendations for managers seeking to enhance their firms' level of success were skilled investments in: human resource planning, compensation level, incentive compensation, training, internal promotion, employment security, participation, selectivity, grievance procedures, or flexitime [11]. The research results in Spain indicated that the personal characteristics of the owners, managers, the organization characteristics and the characteristics of the external environment were important factors of innovation in small business. Those small business owners, managers who were moved by a sound intrinsic motivation had a higher probability of introducing innovations. Education appeared as a key factor whose impact on innovation came through its effect on owners, manager's motivations and its influence on the management style of small businesses [12]. Many other factors influencing motivation for work are on research agenda for scientists around the globe.

3. Research Results and Discussion

The survey of SME owners, managers in Latvia was conducted in December 2010 – August 2011, 2700 entrepreneurs were approached, total number of complete questionnaires was 1464, but only 729 respondents gave answers to all research questions.

Table 1

Statistical indicators of motivation in SME in Latvia in 2011

	Motivation
Number of respondents	729
Mean	8.26
Std. Error of Mean	0.063
Median	8.00
Mode	8
Std. Deviation	1.692
Variance	2.863
Minimum	3
Maximum	10

Estimation scale 1 – 10 (where 1 – not significant, 10 – very significant)

Source: SME managers survey in December 2010 – August 2011 (n=729)



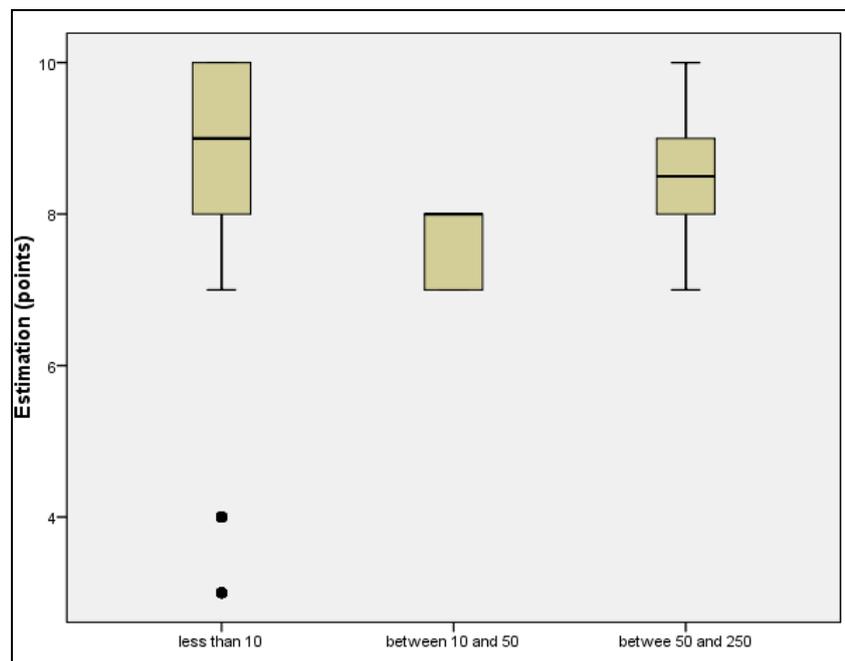
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Several questions related to employee motivation were asked. For evaluations of these questions scale 1 – 10 was used, where 1 – not significant; 10 – very significant. The research results proved that there were rather high evaluations for motivation in SME in Latvia. Arithmetic mean of motivation was 8.26, standard error of mean was 0.063 (in scale 1 – 10), most of the evaluations of SME managers were 8 (mode), 50% entrepreneurs evaluated motivation significance on company management with 8 and more points (median), evaluations were quite homogeneous – it is proved by indicators of variability: standard deviation was 1.692, coefficient of variability was 20.49% (see Table 1).

The results show that evaluations of motivation were high, maximum evaluation 10 points gave 25.9% respondents, 8 and more points 77.8% respondents, 3 point gave 3.7% respondents.

One-way ANOVA were conducted to investigate differences of motivation across the micro, small and medium sized enterprises. The results of the analyses provide support that there was a significant difference between micro, small and medium sized enterprises ($F=12.369$, $p<0.001$). Post hoc Bonferroni tests indicated that micro (Mean=8.23, Std. Error of Mean=0.119) and small (Mean=8.50, Std. Error of Mean=0.059) size enterprises owners, managers were significantly more motivated employees than medium (Mean=7.60, Std. Error of Mean=0.042) size enterprises owners, managers (see Figure 1.).



Estimation scale 1 – 10 (where 1 – not significant, 10 – very significant)

Figure 1. Employees motivation in micro, small and medium size enterprises with different number of employees (less than 10, between 10 and 49, between 50 and 250)

Source: SME owners, managers survey in December 2010 – August 2011 (n=729)



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Correlations are presented in Table 2. As it is proved in research in many other countries, also in Latvia motivation was significantly ($p < 0.001$), positively correlated with communication, training and innovation. Between motivation and communication was the strongest correlation ($R = 0.798$), between motivation and training correlation was strong ($R = 0.633$), between motivation and innovation correlation was lower ($R = 0.159$).

Table 2

Correlations among motivation, communication, training and innovation

		Motivation	Communication	Training
1.	Motivation	-		
2.	Communication	0.798*	-	
3.	Training	0.633*	0.791*	-
4.	Innovation	0.159*	0.199*	0.276*

* Correlation is significant at the 0.01 level (2-tailed).

Source: SME owners, managers survey in December 2010 – August 2011 (n=729)

Table 3

Factor pattern matrix for complex factors which had impact on SME performance

	Factors			
	F1	F2	F3	F4
Innovation	-0.074	0.244	-0.114	0.737
Administrative procedures	0.931	0.075	0.102	0.114
Stability of external environment	0.853	0.326	-0.211	0.077
Financial resources	0.927	0.176	-0.097	0.158
Skilled worker	0.963	0.043	0.009	0.102
Tax policy	0.821	-0.159	0.351	-0.281
Training	0.015	0.863	0.112	0.234
Manager's business education	-0.267	0.208	0.652	-0.186
Manager's business experience	0.098	0.022	0.761	0.302
Manager's work experience in sector	0.164	0.425	0.762	-0.156
Manager's experience in employee management	0.270	0.439	0.648	0.440
Manager's experience at work with state institutions	0.214	0.088	0.133	0.792
Communication	0.108	0.906	0.265	0.027
Motivation	0.133	0.851	0.231	0.176
Use of Internet	0.209	0.635	-0.585	0.179

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 6 iterations. Estimation scale 1 – 10 (where 1 – not significant, 10 – very significant).

Source: SME managers survey in December 2010 – August 2011 (n=1464)



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In order to identify the complex factors which had significant impact on SME and to analysing the structure of the interrelationships among of variables we used factor analysis. The 15 initial factors were applied for Principal Component Analyses (innovation, administrative procedures, stability of external environment, financial resources, skilled worker, tax policy, training, owners, managers business education, business experience, work experience in economic sector, experience of employee management, experience at work with state institutions, communication, motivation, use of Internet). A Varimax rotation was applied and the factor matrix indicated that four complex factors have been found in 6 iterations (see Table 3).

The four complex factors were given the following names:

- 1) Factor 1: external environment impact (accounting 29.08% of the variance as revealed by the rotated sums of squares loadings). This factor holds administrative procedures, stability of external environment, financial resources, skilled worker, and tax policy.
- 2) Factor 2: motivated, educated employee (accounting 22.32% of the variance). This factor holds training, communication, motivation, use of Internet.
- 3) Factor 3: skilled manager (accounting 18.01% of the variance). This factor holds manager's business education, business experience, and work experience in economic sector.
- 4) Factor 4: innovation management (accounting 11.78% of the variance). This factor holds innovation and manager's experience at work with state institutions.

Those four complex factors external environment, motivated, educated employee, skilled owner, manager, innovation management were the factors which had significant impact on SME performance in Latvia in 2011.

The impact of the external environment factor was very significant for micro enterprises, 59.6% micro enterprise owners, managers evaluated its impact as very significant, but the lowest evaluation of the impact of external environment was for medium size enterprises, 23% medium size enterprise owners, managers evaluated external environment impact as very significant, 29.7% small enterprise owners, managers evaluated external environment impact as very significant (see Table 4.).

Table 4

External environment factor's impact on micro, small and medium size enterprises performance in Latvia in 2011

Enterprises	External environment impact				Total
	Very weak	Weak	Significant	Very significant	
Micro	6.5%	12.0%	22.4%	59.6%	100.0%
Small	25.0%	20.3%	25.0%	29.7%	100.0%
Medium	33.0%	29.0%	50,0%	23.0%	100.0%

Estimation scale 1 – 10 (where 1 – not significant, 10 – very significant)

Source: SME owners, managers survey in December 2011 – August 2011 (n=1464)



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The impact of the motivated, educated employee factor was very significant for micro enterprises, 39.6% micro enterprises owners, managers evaluated its impact as very significant, the lowest impact of motivated, educated employee factor was for medium enterprises, only 23.3% medium enterprise owners, managers evaluated factor as very significant (see Table 5).

Table 5

Motivated, educated employee factor's impact on micro, small and medium size enterprises performance

Enterprises	Motivated, educated employee impact				Total
	Very weak	Weak	Significant	Very significant	
Micro	10.0%	9.0%	41.4%	39.6%	100.0%
Small	25.0%	20.7%	31.0%	23.3%	100.0%
Medium	10.3%	24.0%	32.3%	33.4%	100.0%

Estimation scale 1 – 10 (where 1 – not significant, 10 – very significant)

Source: SME owners, managers survey in December 2011 – August 2011 (n=1464)

The impact of skilled manager factor was very significant for small enterprises, 48.8% small enterprise owners, managers evaluated its impact as very significant, the lowest impact was for medium enterprises, only 23.3% medium enterprise managers evaluated factor as very significant (see Table 6).

Table 6

Skilled manager factor's impact on micro, small and medium size enterprises performance

Enterprises	Skilled owner, manager impact				Total
	Very weak	Weak	Significant	Very significant	
Micro	20.1%	30.8%	33.2%	15.9%	100.0%
Small	15.0%	10.7%	26.3%	48.8%	100.0%
Medium	13.0%	24.0%	27.4%	35.6%	100.0%

Estimation scale 1 – 10 (where 1 – not significant, 10 – very significant)

Source: SME managers survey in December 2011 – August 2011 (n=1464)

The evaluation of innovation management factor was quite similar for micro, small and medium size enterprises, about 27% managers evaluated this factor as very significant, 30% – as significant and 43% – as weak or very weak. Hence the authors may conclude that for micro enterprises very significant were such factors as business external environment, motivated, educated employees; for small enterprises very significant were external environment, skilled owner,



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manager; for medium enterprises very significant were motivated, educated employee, skilled owner, manager.

4. Conclusions

The motivated, job satisfied, skilled, involved in organizations employees are the essential feature of any successful organization, special importance it has for small and medium sized enterprises. Managers can increase employee productivity and improve job satisfaction through effective motivation. One of the challenges of managers is to know what incentives will stimulate employees.

The survey results show that external environment, motivated, educated employee, skilled owner, manager, innovation management are the main factors which have the significant impact on SME performance in Latvia. There are significant, positive and close relationships among motivation, communication and training in SME, but the relationships of motivation, communication and training with the innovation is weak. It can be explained with current economic situation in Latvia when for many enterprises financial resources for innovation have a shortage. The scientific research results have proved that employees can be more innovative as well as creative if they are motivated.

The results of variance analysis provided support for the existence of differences in employee's motivation of micro, small and medium size enterprises, micro and small size enterprises managers were significantly more motivating employees than medium size enterprises. The SME managers should increase effectiveness of employee motivation.

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TRUST MARKETING: A NEW MARKETING FRAMEWORK TO INCREASE SALES PROCESS THROUGHPUT FOR HIGH-RISK PRODUCTS

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Abstract

Certain products involve such a high-risk for customers that the possible damage can be greater than the advantage. According to [1] perceived risk has a negative impact on sales process throughput resulting for corresponding vendors in lower profits. In general, trust research proposes trust as a solution for high-risk situations. Thus, if marketing would be able to build-up customer trust in high-risk products a significant problem of corresponding vendors would be solved. For this purpose the Trust Triangle Marketing Framework (TTMF) is proposed in this paper consisting of four trust marketing strategies. Within expert interviews across different industries of high-risk products the TTMF is empirically tested towards its ability to increase sales process throughput and customer satisfaction for high-risk products.

1. Situation and Research Question

Many products involve such a high risk for customers that the possible damage can be greater than the advantage (e.g. a cosmetic surgery contains the risk of numbness, a nuclear power plant contains the risk of losing human life, a cryptographic device contains the risk of getting hacked and exposing critical data). According to [1] perceived risk has a negative impact on sales process throughput resulting for corresponding vendors in lower profits. Research across different academic disciplines propose trust as a solution for risk in general. Thus, if marketing would be able to build-up customer trust in high-risk products a significant problem of corresponding vendors would be solved. As such the research question is proposed as: Can sales process throughput for high-risk products be increased via trust marketing?

2. Literature Review

Despite the broad coverage of trust in the existing literature [2] a clear definition of trust is lacking: e.g. [2] talks about "...the problem of defining trust, a concise and universally accepted definition has remained elusive...", [3] points out that „trust in general has been given many different definitions...”, whereas [4] talks about a "...conceptual confusion regarding the



meaning of trust...”. In the following some examples for the great variety of trust definitions are provided: (1) [5]: “Interpersonal trust is defined here as an expectancy help by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon.”; (2) [6] defines trust as the “...confidence in the goodwill of others...”; (3) [7] sees trust in a sociological perspective as “a set of expectations shared by all those involved in an exchange”; (4) [8]: “Trust is anticipated cooperation.”; (5) [9] define trust as “...the willingness of a party to be vulnerable...” which will be used in the following as it is “the most frequently cited definition...” [10] with over 1.100 citations since 1996 [11]. [12] developed an interdisciplinary trust model based on a meta-analysis about 80 books and articles on trust from several scientific disciplines (see Exhibit 1).

Of particular interest for the scope of this paper are the trusting beliefs, as they are basically the single component which can be influenced by someone who wants to be trusted. Trusting beliefs are defined by [12] as “...one believes (and feels confident) that the other person has one or more traits desirable to one in a situation in which negative consequences are possible”. Trust marketing is proposed to build up the trusting beliefs of a high-risk product. To the best of the author’s knowledge currently no general trust marketing framework for high-risk products exists.

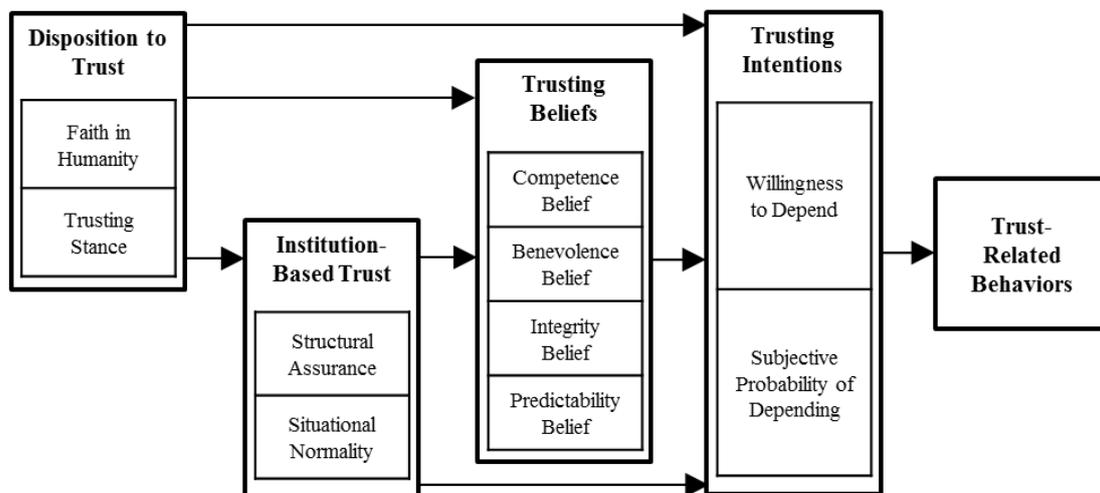


Exhibit 1. Interdisciplinary Model of Trust Constructs according to [13], [12], [14], [15], [16]

Source: diagram by author.

3. Model Development & Hypotheses

In the following the Trust Triangle Marketing Model (TTMM) in exhibit 2 gets developed based on the review of existing marketing and trust research.



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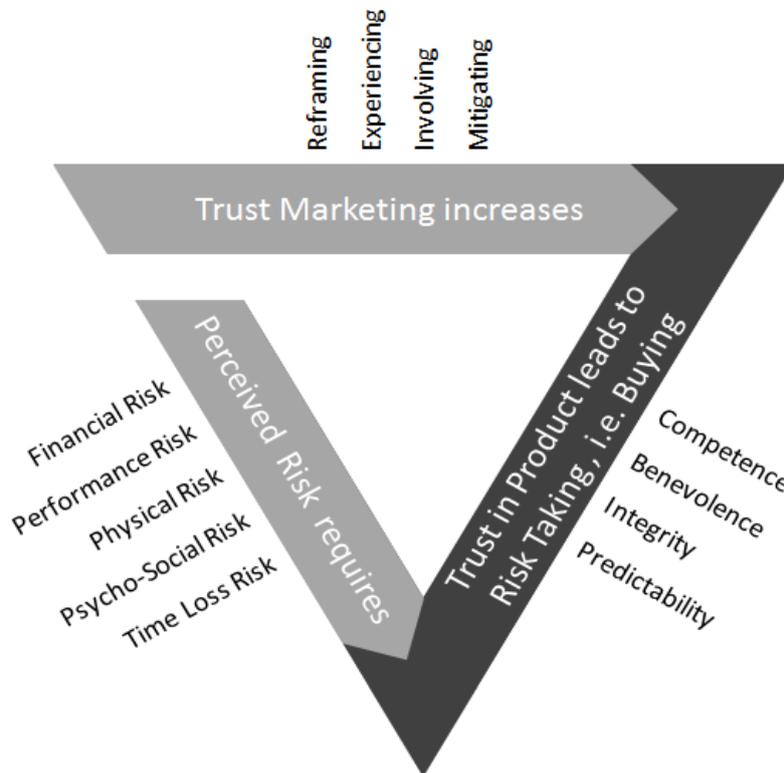


Exhibit 2. Trust Triangle Marketing Model (TTMM)

Source: diagram by author

The concept of perceived risk was introduced to the marketing discipline in 1960 by [17] as “...consumer behavior involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty...”. Based on the definitions of [18], [19] and [20] the following categories of perceived risk will be defined for this research: (1) Financial Risk: potential loss of money; (2) Performance Risk: potential loss due to a product’s failure; (3) Physical Risk: potential loss of non-mental health; (4) Psycho-Social Risk: potential loss of mental health, ego, social status or social relationships; (5) Time Loss Risk: potential loss of time due to a product’s failure. As the customer perceives the risk of a product, the critical issue for the vendor is if the customer also takes the risk in terms of actually buying the product. Trusting another party describes a willingness to be vulnerable but does not automatically include the actual activity of taking the risk [9]. However, trusting the other party leads to risk taking [9], which is conceptualized in the TTMM as buying the product [21]. Furthermore, the higher the perceived risk, the more trust is required by the customer in the product to take the risk of buying the product [9], [22]. Thus, perceived risk requires trust to enable customer risk taking, i.e. buying the product. The level of trust is determined by the trusting beliefs according to [12] consisting of the four sub constructs:



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competence, benevolence, integrity and predictability [12]. Trust marketing aims at building up the trusting beliefs for a specific high-risk product or vendor.

Therefore the TTMF consist of four marketing strategies (see exhibit 2): reframing, experiencing, involving and mitigating. In the following a short overview of the theoretical foundation of the trust marketing strategies is provided:

1) Reframing Strategy: As [23] points out, familiarity is the precondition for trust. Furthermore [17] emphasizes that the perception customers have about a company is the dominant source of influence when risk is high. Thus the reframing strategy aims at providing information to the customers about the high-risk product, the company as well as information on how trusted third parties regard the high-risk product. Thereby the customer's familiarity with the product and the company should be increased and the customer should be enabled to make a better judgment of the product's and vendor's trustworthiness [24], [25], [26], [10], [27], [28]. Thus the TTMF Strategy Reframing is defined as: Building up the trusting beliefs benevolence, competence, integrity and predictability via sharing information about the company or the product from own sources or from trusted third parties.

2) Experiencing Strategy: Based on [9] "...the level of trust will evolve as the parties interact". Thus it is the idea behind the experiencing strategy to build up trust via actively created interactions with the high-risk product and the vendor before the purchase, via e.g. product simulations, product trials, interaction with sales people or demonstrating that the vendor cares about the customer's needs. Thereby the customer is intended to build up an experience history that further builds up trusting beliefs [2], [9], [29], [30], [27]. Thus the TTMF Strategy Experiencing is defined as: Building up the trusting beliefs benevolence, competence, integrity and predictability via the customer experiencing the company or the product.

3) Involving Strategy: [31] made an interesting finding on building up trust in the management of a nuclear power plant: The single alternative having a substantial impact on trust was giving an advisory board of local citizens and environmentalists the ability to monitor and shut down the plant if they believe it to be unsafe. [31] refers to this principle as "delegation of authority". Thus within the involving strategy it is proposed to create customer trust via delegating authority to a limited extent via customers or trusted third parties in product design or significant customer-affecting business decisions [22],[32], [33]. However, the involvement does not automatically lead to a guaranteed influence on the vendor's final course of action. Thus the TTMF Strategy Involving is defined as: Building up the trusting beliefs benevolence, integrity, and predictability via publicly involving customers or trusted third parties in the design of products and decisions that impact customers.

4) Mitigating Strategy: This strategy is alluding to [7]'s findings that trust can be built by a party making use of insurance signals, i.e. "...doing everything to protect the other party from a loss and behaving in a responsible manner". Furthermore [7] notes that via regulation (e.g. laws, contracts) institutionally-based trust can be established. In addition to that, regulation can be seen as a control mechanism for the trustor over the trustee which also reduces his risk. For the TTMF the mitigating strategy provides regulation which offers an advantage to the customer in terms of reducing the perceived risk [34], [35], [11]. Thereby a required trust threshold for a high-risk product can be reduced via offering product modifications, special support agreements, service and enforcement guarantees or financial insurances. Thus the



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TTMF Strategy Mitigating is defined as: Building up the trusting beliefs benevolence, competence and predictability by mitigating the perceived risk.

Each of the four trust marketing strategies consists of three marketing approaches that build up the specific trusting beliefs of their corresponding TTMF strategy (for a detailed description of the marketing approaches see [36]). It is also important to investigate if the usage of trust marketing has a bigger impact on increasing sales process throughput than additional investments in the industry-specific marketing strategies of the concerning industry (i.e. of all marketing approaches that are typical for the corresponding industry and which are not part of the TTMF). Such marketing strategies are called “traditional” marketing in the following (e.g. price promotions, distribution strategies, promotional events, opportunity qualification via telesales, etc.). For the TTMF to qualify as a useful marketing strategy, it is important to validate the framework if the building up of trust in a high-risk product also results in an increase of sales process throughput, higher than additional investments in the traditional marketing strategy of the corresponding industry. In addition to the focus on increasing the sales process throughput it is also of interest, if the application of trust marketing increases customer satisfaction, especially in contrast to the traditional marketing strategies.

Hypotheses:

H1: Each of the applicable TTMF strategies for a high-risk product’s industry increase sales process throughput more than additional traditional marketing.

- H1a: If applicable for the industry, the TTMF strategy reframing increases the sales process throughput more than additional traditional marketing.
- H1b: If applicable for the industry, the TTMF strategy experiencing increases the sales process throughput more than additional traditional marketing.
- H1c: If applicable for the industry, the TTMF strategy involving increases the sales process throughput more than additional traditional marketing.
- H1d: If applicable for the industry, the TTMF strategy mitigating increases the sales process throughput more than additional traditional marketing.

H2: Each of the applicable TTMF strategies for a high-risk product’s industry increase customer satisfaction more than additional traditional marketing.

- H2a: If applicable for the industry, the TTMF strategy reframing increases customer satisfaction more than additional traditional marketing.
- H2b: If applicable for the industry, the TTMF strategy experiencing increases customer satisfaction more than additional traditional marketing.
- H2c: If applicable for the industry, the TTMF strategy involving increases customer satisfaction more than additional traditional marketing.
- H2d: If applicable for the industry, the TTMF strategy mitigating increases customer satisfaction more than additional traditional marketing.

Exhibit 3. Hypotheses



4. Empirical Design

For the empirical test of the hypotheses expert interviews using the pairwise comparison of the Analytical Hierarchy Process [37] have been conducted across 15 industries of high-risk products from December 2010 to January 2012 (see exhibit 4). A “high-risk product” in the context of this study means that a product involves a risk of a possible damage to the customer, which is greater than the products advantage for the customer. The method of expert interviews has been selected for the following reasons: (1) Ex ante concept validation: at the current point of the research the general feasibility of the trust marketing framework has to be tested; (2) Feasibility evaluation: The feasibility of marketing and sales approaches has to be evaluated which requires significant domain expertise of the specific vertical, product and technology (e.g. legal constraints, market dynamics, channel structure, etc.); (3) Reasonableness evaluation: The reasonability of marketing and sales approaches has to be evaluated which requires significant domain expertise of the specific vertical, product and technology (e.g. return on marketing investment, vertical specific buying center structure, etc.); (4) Marketing-Mix Optimization: Making decisions on the marketing mix to optimize it requires high levels of marketing expertise and experience; (5) Asymmetric information: High-risk products in general require a high level of expertise as they are mostly expert systems. This special knowledge is very often only available on the vendor side (e.g. eye laser surgery, nuclear power plants, etc.); (6) Sales Process Focus: For this research the sales process and the increase of its throughput is in the major focus, not building up customer trust in a product per se.

For an expert to qualify for an interview on the corresponding high-risk product, the following criteria have to be met: (1) 5+ years of relevant domain expertise concerning the product and its market; (2) Market or customer facing role or experience; (3) Management or consultancy position in one of the leading companies in the corresponding market.

The main statistical method used is the pairwise comparison of the Analytic Hierarchy Process (AHP) [37], [38], [39]. For data collection and analysis the AHP software implementation “Super Decisions” (<http://superdecisions.com>) has been used in the expert interviews alongside with a questionnaire. Within the pairwise comparison process, each possible pair of alternatives (i.e. the marketing strategies) is evaluated against a criterion. In this research two pairwise comparisons have been conducted against two different criteria: 1) increase sales process throughput and 2) increase customer satisfaction. Out of these pairwise comparisons and the resulting pairwise matrix the eigenvector for the criteria is calculated, which “...determines the relative ranking of alternatives” [40] towards the concerning criterion. Furthermore the analytical hierarchy process also calculates the overall consistency of the judgments given by an expert via the inconsistency ratio. For a consistent set of judgments, “...the inconsistency ratio should be less than 0.1 to be considered reasonably consistent” [41]. Thus, for H1, H1a-d, H2, H2a-d to be supported, two conditions have to be fulfilled: (1) For each interview every applicable TTMF strategy has to rank higher towards the criterion concerned (i.e. “increase sales process throughput” or “increase customer satisfaction”) than the alternative strategy of additional traditional marketing; (2) The inconsistency ratio for a set of pairwise comparisons has to be below 0.1 [41].



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5. Results

The high-risk products from the conducted expert interviews are shown in exhibit 4. Each product's risk has been identified and evaluated by the expert, if it fulfills the requirement of a product to qualify as a high-risk product. This requires that the product involves a risk of a possible damage to the customer, which is greater than the products advantage for the customer.

ID	Industry	B2B/B2C	Perceived Risk
1	Business Strategy Consulting	B2B	Possible bankruptcy
2	Fighter Airplane Software Quality Assurance	B2B	Death of human beings (from pilots to civilians)
3	Enterprise Antivirus Solutions	B2B	Breakdown of business operations
4	Private Financial Investment Consultancy	B2C	Loss of financial existence
5	Private Insurance Consultancy	B2C	Incongruent risk coverage
6	Digital Content Protection	B2B	Loss of intellectual property and business model
7	Biometric Devices for Access Systems	B2B	Access to high value assets
8	Automated Production Solutions	B2B	Product specifications not achieved
9	New medicaments with high financial invest	B2C	Disproportional treatment efforts
10	Eye Laser Treatment	B2C	Loss of eyesight quality
11	Urban Rope Ways in Western Asia	B2B	Damage of human health due to lack of quality
12	Cloud Computing in public Clouds	B2B	Loss of control
13	Nuclear Power Plant	B2C	Loss of health due to nuclear radiation
14	Airport	B2C	Losses regarding quality of life
15	Legal Counseling by Lawyers	B2B&C	Losses due to miscounseling

Exhibit 4. Conducted Interviews of high-risk Products & perceived Risk

Exhibit 5 depicts the results of the expert interviews regarding (1) the applicable strategies as well as (2) the results of the AHP pairwise comparisons regarding the criteria “increase sales process throughput” and “increase customer satisfaction”. Regarding (1), if a strategy has not been applicable to a certain high-risk product, the corresponding cells in exhibit 5 contain “<n.a.>”. Regarding (2), the five columns on the right of the interview ID column in exhibit 5 depict the relative dominance of the strategies over the alternative “additional traditional marketing”, which has been calculated via dividing the pairwise comparison result of the strategies by the corresponding result of the strategy “additional traditional marketing”. As the next to last column in exhibit 5's tables shows, the TTMF alternatives are dominant over the alternative “additional traditional marketing” across all 15 expert interviews, except for the mitigating strategy in the industries “Enterprise Antivirus Solutions” and “Private Insurance Consultancy” regarding the criterion “increase customer satisfaction”. Based on the expert interviews, it is suggested as a root cause, that customer satisfaction for these products is much more influenced by price reductions than by mitigating a perceived risk. Thus, these results offer support for H1, H1a, H1b, H1c and H1d, H2a, H2b and H2c, whereas H2 and H2d are only partially supported.



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Results of the Expert Interviews using the Analytic Hierarchy Process' pairwise comparisons

a) Relative Dominance of the Marketing Strategy Alternatives over the Alternative “Additional traditional Marketing” towards the Criterion of “Increase Sales Process Throughput”

ID	TTMF Strategy Reframing	TTMF Strategy Experiencing	TTMF Strategy Involving	TTMF Strategy Mitigating	Additional traditional Marketing	Dominance of TTMF Alternatives	AHP Inconsist. Index
1	4.719974	11.474998	2.353077	<n.a.>*	1.000000	Yes	0.0609
2	4.479261	7.265540	1.306429	13.974105	1.000000	Yes	0.0522
3	4.908957	6.222288	4.722160	2.852971	1.000000	Yes	0.0799
4	3.048450	11.604430	1.479378	2.554720	1.000000	Yes	0.0592
5	2.711821	14.550645	1.988660	1.725447	1.000000	Yes	0.0338
6	14.195581	6.106706	1.498051	<n.a.>*	1.000000	Yes	0.0745
7	5.836430	1.503802	3.412180	<n.a.>*	1.000000	Yes	0.0212
8	4.124281	7.828794	<n.a.>*	15.095055	1.000000	Yes	0.0918
9	3.800069	4.295262	11.231112	<n.a.>*	1.000000	Yes	0.063
10	5.933321	13.966105	<n.a.>*	6.172966	1.000000	Yes	0.0649
11	8.904855	6.833564	2.761774	3.175030	1.000000	Yes	0.0933
12	10.563776	7.290824	3.374504	1.256699	1.000000	Yes	0.0318
13	6.583631	12.402799	9.215275	1.359677	1.000000	Yes	0.0335
14	3.710536	4.950227	16.686026	2.590908	1.000000	Yes	0.0644
15	3.169718	8.108166	<n.a.>*	1.363936	1.000000	Yes	0.0338

b) Relative Dominance of the Marketing Strategy Alternatives over the Alternative “Additional traditional Marketing” towards the Criterion of “Increase Customer Satisfaction”

ID	TTMF Strategy Reframing	TTMF Strategy Experiencing	TTMF Strategy Involving	TTMF Strategy Mitigating	Additional traditional Marketing	Dominance of TTMF Alternatives	AHP Inconsist. Index
1	1.402644	14.568028	6.342589	<n.a.>*	1.000000	Yes	0.0846
2	4.962851	8.440907	1.438600	14.508498	1.000000	Yes	0.0802
3	1.127550	1.067302	1.171893	0.387603	1.000000	No	0.0998
4	3.603629	13.929870	2.709309	7.242323	1.000000	Yes	0.0912
5	1.548493	11.362755	2.081257	0.775328	1.000000	No	0.0628
6	14.373953	6.865255	3.843867	<n.a.>*	1.000000	Yes	0.0482
7	3.177320	5.360174	2.064915	<n.a.>*	1.000000	Yes	0.0328
8	2.303860	8.043039	<n.a.>*	6.141446	1.000000	Yes	0.0496
9	1.312728	5.087532	6.713284	<n.a.>*	1.000000	Yes	0.0288
10	4.832778	14.571699	<n.a.>*	4.832778	1.000000	Yes	0.0758
11	2.633225	18.579172	3.005814	5.063713	1.000000	Yes	0.0931
12	6.761283	20.750939	4.329265	2.948212	1.000000	Yes	0.0801
13	4.911070	9.380249	13.559788	2.841568	1.000000	Yes	0.0568
14	2.205438	3.000369	7.640184	1.524200	1.000000	Yes	0.0783
15	5.172725	9.349295	<n.a.>*	4.923697	1.000000	Yes	0.0058

* <na> indicates that an expert does not see the corresponding TTMF strategy applicable for the high-risk product's industry

Exhibit 5. Results of the Expert Interviews using the Analytic Hierarchy Process' pairwise comparisons



6. Conclusions

Exhibit 6 shows a strong dominance of the TTMF strategies across all 15 interviews over the non-trust-marketing strategy regarding the criterion “increase sales process throughput”. Especially the “experiencing” strategy shows a strong dominance, also when compared towards the other TTMF strategies. The coefficient of variation regarding the criterion “increase sales process throughput” suggests a much more uniform picture on the impact of the TTMF strategies reframing and experiencing across the different industries than the involving and mitigating strategy. As root causes regarding the involving strategy it is proposed, that the potential to involve customers in product decisions varies between industries depending on their degree of: (a) Customer competence regarding the product (layman-problem) and (b) General customer interest of being involved at all. Regarding the mitigating strategy, the suggested root cause is that the limit to which a risk can be mitigated at all varies between industries, e.g. the loss of human lives can hardly be mitigated.

Relative Dominance of the TTMF Strategy Alternatives over the Alternative “Additional traditional Marketing” across all 15 Interviews towards:

a) Criterion “Increase of Sales Process Throughput”					b) Criterion “Increase Customer Satisfaction”				
Marketing Strategy	Arith. Mean	Median	Std. Dev.	Coeff. of Variat.	Marketing Strategy	Arith. Mean	Median	Std. Dev.	Coeff. of Variat.
Reframing	5.77938	4.71997	3.18872	0.55174	Reframing	4.02197	3.17732	3.33906	0.83020
Experiencing	8.29361	7.29082	3.74242	0.45124	Experiencing	10.02377	9.34930	5.60349	0.55902
Involving	5.00239	3.06814	4.84096	0.96773	Involving	4.57506	3.42484	3.54573	0.77501
Mitigating	4.73832	2.59091	5.03983	1.06363	Mitigating	4.65358	4.83278	3.94376	0.84747
Add. Mkt.	1.00000	1.00000	0.00000	0.00000	Add. Mkt.	1.00000	1.00000	0.00000	0.00000

Exhibit 6. Relative Dominance of the TTMF Strategy Alternatives over the Alternative “Additional traditional Marketing”

The coefficient of variation in exhibit 6 regarding the criterion “increase customer satisfaction” shows the most uniform judgment of the experts regarding the strategy experiencing. As a root cause it is proposed that a “tangible proof” of a vendor that he can actually handle a perceived risk is commonly seen as a strong driver for customer satisfaction. This is also emphasized by the strong dominance of the alternative over all other strategies.

In general the study suggests that it is possible to create customer trust via marketing with a positive impact on increasing sales process throughput. The current study is designed as an explorative study to provide an ex-ante concept validation. However, additional research is indicated regarding “real world” A/B testing, i.e. measuring the impact on sales process throughput for a high-risk product with and without the TTMF being applied to it. Additional research is also indicated in the field of pricing, i.e. if products with higher levels of customer trust can be sold at a premium pricing, as well as in the area of branding, i.e. to which extend trust in a product influences and strengthens a brand.



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With the continuous upcoming of new technologies and their rising degree of interconnectedness, customers do more and more lose the chance of dealing with the fast growing rate of complexity and its resulting uncertainty. Thus, trust with its ability to reduce complexity [23] and to better estimate outcomes of cooperation [27] can be expected to become even more important for the marketing discipline.

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ROLE OF PERSONNEL MOTIVATION POLICY FOR EMPLOYEES' PRODUCTIVITY OF BIG COMPANY

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Abstract

The present study contributes to our understanding of relationships between employees' productivity and organizational commitment, welfare and self-determined motivational factors in telecommunication sector by exploring differences on evaluation of productivity related issues between big and small size telecommunication companies and comparing those with general working population in different industries. Findings of this study will give certain knowledge on the meaning of knowledge workers' productivity in telecommunication industries and on the specific challenges involved in the management of knowledge workers' productivity.

Commitment as used in this context refers to loyalty and job satisfaction, while productivity refers to employee job performance and effectiveness. Specifically, Aswathappa (2004) argued that welfare involved physical, mental, moral and emotional well-being of an individual, which according to Singh (2009) involves occupational health, suitable working time and appropriate salary that can increase motivation and satisfaction¹. In this context we defined Welfare as body of hygienic benefits, incentives provided by employer and self-determinant motivation refers to intrinsic motivators.

In the pages below that follow, we first review theoretical framework of involved concepts like productivity, commitment and motivation. This is followed by a description of our research method, the presentation of our findings and conclusions.

¹ Chukwunenye ,I.O., Akpoebi D. Amgbare, Staff Welfare And Productivity In Patani Local Government Council Of Delta State, Nigeria, Culture & Religion Review Journal, Vol. 2011 Iss.1, 14 p.



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Introduction

The issues of productivity, professionalism and performance are being central concerns for many years. Concern for productivity is becoming more and more crucial due to fundamental structural changes economy and in the labour markets. These changes are connected with the growing proportion of service industries, with the application and increasing use IT and communication technology, which influence on reproductive process is of such importance that innovations and knowledge have become the new unique production factors besides labour, land and capital. These new production factors condition transition of economy to a new quality that is known as knowledge or new economy. The new economy is marked as a society based on knowledge or information society in which technological changes and the influence of knowledge determine and modify economic development.

Competitiveness was and still is the best parameter which determines the survival of enterprises and organizational excellence in this scenario. Now competition is transformed to hyper-competition and the most crucial variable is knowledge. Knowledge workers are rapidly becoming the largest single group in the work force of every developed country. Thus the ability of organizations – and not only of businesses— to survive will come to depend on their “comparative advantage” in having the best knowledge workers and making them more productive. The term “knowledge work” was first coined by Dr. Peter Drucker in the 1960s as any work that requires mental power rather than physical power (Fisher, 1998). It has been further defined as work that involves analyzing information and applying specialized expertise to solve problems, generate ideas, teach others, or create new products and services (Evans, 1993)². The ability to attract and hold the best of the knowledge workers is the first and most fundamental precondition³. Therefore the greatest challenge facing companies will be to evaluate, measure and rise productivity of knowledge and service workers⁴. High productivity and organizational performance could not be realized without the employee’s support and contribution. This is because these human assets are largely responsible for the achievement of organization’s vision, mission and goals. Employee motivation is in fact an essential component of business operations – high motivation coincides with job satisfaction, a sense of pride in one’s work, a lifelong commitment to one’s organization, and the desire to put the achievement of organizational goals ahead of personal goals, thereby enhancing an organization’s performance and productivity (Linz, Good, & Huddleston, 2006). To ensure that employees are satisfied with their job, they need to be motivated and compensate with rewards that are valued by the employees. Employee motivation is widely practised exercise today across all corporate sectors regardless of their size of being either big or small. Just like the psychological need for any individual to be appreciated over his efforts, the same idea of thought stems the need for rewards and recognition in order to increase the work drive of an employee and increase his efficiency and seriousness towards work. Employees’ motivation at work can take place in two ways. First, Intrinsic motivation-people who are intrinsically or internally motivated generally

² Jones E.C., Chung C.A., A Methodology for Measuring Engineering Knowledge Worker Productivity, *Engineering Management Journal*, Vol. 18, No. 1, March 2006, 32 p.

³ Drucker P.F., Knowledge-workers Productivity: The Biggest Challenge, *California Management Review*, Vol. 41, No. 2, Winter 1999, pp. 79-94, 94 p.

⁴ Drucker P.F., The New Productivity Challenge, *Harvard Business Review*, 1991, December, 69 p.



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don't need external rewards such as pay or praise to do well in a job. They are self-motivated because they enjoy performing the actual tasks or enjoy the challenge of successfully completing the tasks. Herzberg proposed that these positive elements (the 'satisfiers') are job content factors such as a sense of achievement, recognition, interest in the work itself and advancement. Second group relates to extrinsic motivation and describe employees, who are externally motivated, generally don't enjoy the tasks but are motivated to perform well by some kind of reward, pay, promotion, praise or avoid any negative consequences and conversely. These are so called the 'dissatisfiers' or 'hygiene factors' and are associated with the workers relation to the environment in which he performs his task, such as the company policies, ineffective administration among others. Intrinsic motivation is likely to have a strong and longer-term effect on employees because it is inherent in employees and not imposed from the management.

Understanding Productivity

Employee productivity is exchangeable with terms high job performance, effectiveness in the context of this study. Researchers (Scase, 2003; Katzenbach, Smith 1999) defined high performance of teams, giving explanation as one which perform better than the average or deliver performance well in excess similar ones and far above reasonable expectations in their business, team⁵. According to business dictionary job performance has been defined as work performance in terms of quantity and quality expected from each employee. Job performance as the aggregated value to an organization of the set of behaviors that an employee contributes both directly and indirectly to organizational goals (Borman & Motowidlo, 1993; Campbell, 1990). Behavioural approach in such context can express the multiple dimensions, this perspective can provide insight into the specific types of employee behaviors that transmit the effects of engagement to more "objective" outcomes, such as productivity, efficiency, and quality. Efficiency and effectiveness are dimensions of productivity. Effectiveness is defined as the level or extent to which an employee can achieve the set goals and quality, whereas efficiency is the proportion between the accomplished and expected or defined result (Sumanth, 1998). Whereas self-efficacy is defined as people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances (Bandura, 1986). Self-efficacy perceptions, in concert with self-regulatory behaviors, influence the goals people set, strategies people choose, effort people expend, and perseverance people display (Bandura, 1991). Thus, successful performance requires that a person possess both the appropriate skills and abilities and strong feelings of efficacy (Lent et al., 1994)⁶

However, since fundamental changes in the very structure and nature of the economic system are continuing it is evident that 'productivity' in the traditional meaning of 'relation between quantity of output in relation to amount of input' (Gutenberg 1958; Pedell 1985; Schermerhorn et al. 1988; Gaither, 1996; Sumanth, 1998) cannot be applied to knowledge work.

⁵ Quader M.S., Quader M.R., A Critical Analysis of High Performing Teams: A Cases study Based on the British Telecommunications, *Journal of Services Research*, Vol. 8, No. 2, 2008, 178 p.

⁶ Don C. M., Scott L. Boyar, Charles M. Carson, Allison W. Pearson, A Production Self-efficacy Scale: An Exploratory Study, *Journal of managerial Issues*, Vol. XX, No. 2, Summer 2008, pp. 272-285.



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Drucker⁷ outlined discrepancies between productivity of manual-worker and productivity knowledge-worker:

1. Knowledge Workers have to manage themselves. Knowledge workers' responsibility for their own contribution. They have to have autonomy;
2. Continuing innovation has to be part of the work, the task and the responsibility of knowledge workers;
3. Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker;
4. Productivity of the knowledge worker is not – at least not primarily – a matter of the *quantity* of output. *Quality* is at least as important
5. Knowledge-worker productivity requires that the knowledge worker is both seen and treated as an “asset” rather than a “cost”. It requires that knowledge workers want to work for the organization in preference to all other opportunities. Thus employer branding “employer by choice” becoming more crucial
6. Knowledge workers are lead by coaching. Knowledge-worker productivity demands that we ask the question: “What is the task?”

Understanding Commitment

There are long standing discussion among researchers on finding significant differences between conceptualization of motivation and commitment. Comparing the definitions of motivation and commitment reveals an obvious similarity: both have been described as energizing forces with implications for behavior both developed in an attempt to understand, predict, and influence employee behavior. Still there is vague understanding which concept is stronger in explaining employee's performance and which employee turnover. One of the important findings is definition of commitment as generally more seriously related to one's self-responsibility with relatively long-term implications. Commitment is viewed as concept that can better explain intensity and stability of an employee's dedication to the organisation (Mester, Visser, Roodt & Kellerman, 2003). By contrast, motivation can be defined dependent on situational circumstances, being inconsistent behavioural signal with shorter-term implications⁸. However majority researchers are agree on multidimensional structure of employee commitment – first, it is the loyalty and support of workforce to the goals of organization” (Begin, 1997, p. 20, O'Reily, & Chatman, 1986).), second it (Greenberg and Baron, 2000) it is certain extent to which an employee identifies and third, it is involvement in one's organization or is unwillingness to leave it. Three another explanatory angles of employee commitment exist in the workplace: Affective commitment – employees' emotional & psychological attachment and involvement in the organization; Continuance commitment – continuation of employment inspired by the costs and benefits associated with leaving the organization, and

⁷ Drucker P.F., Knowledge-workers Productivity: The Biggest Challenge, California Management Review, Vol. 41, No. 2, Winter 1999, pp. 79-94, 84 p.

⁸ Meyer J.P., Becker T.E., Vandenberghe C., Employee Commitment and Motivation: A Conceptual Analysis and Integrative Model, Journal of Applied Psychology Copyright 2004 by the American Psychological Association 2004, Vol. 89, No. 6, pp. 991-1007, 994 p.



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normative commitment – obligation to continue employment with the organization resulting from externally exerted pressure. Of the above three forms of commitment, affective commitment is considered most desirable for an organization, as employees with high levels of affective commitment are more likely to willingly contribute to the organizational performance and productivity, and even do more than it is expected from them (Meyer, & Allen, 1991; Dunham, Grube, & Castaneda, 1994)⁹. Affective commitment to different targets at work may enhance proactive behaviour towards such targets. Den Hartog and Belschak (2007) suggest several explanations for the positive link between affective commitment and proactive behaviour. First, the affective element involved leads to activation that energizes employees to engage in behaviours, thereby facilitating positive action and proactive behaviour (e.g., Cacioppo, Gardner, & Berntson, 1999). Affective commitment to different targets at work may enhance proactive behaviour towards such targets. Den Hartog and Belschak (2007) suggest several explanations for the positive link between affective commitment and proactive behaviour. First, the affective element involved leads to activation that energizes employees to engage in behaviours, thereby facilitating positive action and proactive behaviour (e.g., Cacioppo, Gardner, & Berntson, 1999).

Understanding Telecommunication Industry

Telecommunication industry can be defined as both service and high-technologies industry. However particularly high-technology industries are sensor who follow invention and innovation in business strategy and compete in global and short-cycle product-markets (cf. Milkovich, 1987). In contrast to service and manufacturing industries, these industries rely more heavily on intellectual capital and invest significantly more in research and development. Some evidences from research suggested that employers in this setting are also likely to adopt commitment-based practices aimed at recruiting and retaining highly skilled employees, which can create a climate fostering knowledge exchange and combination (Collins & Smith, 2006). From this perspective telecommunication industry can be defined as one who is dealing with high profile knowledge workers therefore there is crucial to clarify greater understanding on knowledge-worker productivity.

Research Method

Survey methodology was used to collect the data. Two groups of target audience was defined – one employees of telecommunication industry, and employees from others (different ones) industries in Latvia. Two samples' frames for the defined target audiences were used. One sample was designed with involvement of two companies from telecommunication industry. The second sample comprised randomly addressed employed persons representing general public provided by respondents' panel of the respectable research company. Self-selection as sampling method was used for both surveys. Valid questionnaires from 473 respondents of telecommunication companies

⁹ Faizan Mohsan et al, Are Employee Motivation, Commitment and Job Involvement Inter-related: Evidence from Banking Sector of Pakistan, *International Journal of Business and Social Science* Vol. 2 No. 17, www.ijbssnet.com



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and 1073 respondents from general panel audience were used in further data analysis. Data was obtained from employee self-evaluation on effectiveness, commitment and evaluation of the focal company's internal culture, technical provision. Each of concepts was measured using multiple items taken, whenever possible, from previous validated measures. All the scales were measured using seven point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7). As well respondents were asked to evaluate list of intrinsic (10 attributes) and extrinsic (16 attributes) motivators according to company's ability to ensure them ("1" – company is not at all able to meet fulfilment of criteria, and "7" – company meets this criteria at highest level). A list of values that could be used to describe company's culture was provided. Respondents were asked to rate extent (7-point scale was used) on which value is typical for organizations. The same list of values is given to evaluate respondent's own personality. Demographics of gender, age, work experience, education was collected. Data was analysed using SPSS 16 and simple descriptive (i.e. mean, standard deviation and correlation), factor and linear regression analysis were run to analyse the data. Factor analysis did not provide an expected structure of factorial solution according to the preliminary assumed concepts on commitment, positive working emotions and motivational factors. To test authors hypothesised concepts' structure, Principal Component analysis was made by using one factor approach for desirable factor solution (all scales meets requirements of reliability, statistics for "self-made" scales are displayed in Table 1). Seven point scale was transferred to 100-point scale for exhibiting more visible way differences among evaluation of three agents – big size telecommunication company, small size telcom company and other industries.

Measures

Respondents were asked to evaluate productivity, self-efficiency and self-performance by using self-evaluation approach.

Table 1

Reliability test on Constructs' Scales Collinearity statistics

Scales	All industries			Big size Telcom company		Small size Telcom company	
	Items	Cronbach's Alpha	Tolerance	Cronbach's Alpha	Tolerance	Cronbach's Alpha	Tolerance
Effectiveness	5	0.8		0.82		0.78	
Commitment	8	0.88	0.330	0.87	0.287	0.85	0.376
Technical provision	3	0.77	0.593	0.73	0.728	0.79	0.786
Positive workplace emotions	4	0.76	0.365	0.79	0.344	0.69	0.431
Hygienic factors	16	0.91	0.301	0.88	0.254	0.88	0.258
Motivators	10	0.87	0.290	0.88	0.288	0.87	0.293

Source: Authors' transactions based on survey data (Survey method – online, sample method – self-selection, sample size – total 1543, 2011)



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The concept of core self-evaluations, a contemporary construct defined as individuals' appraisals of their own worthiness, effectiveness, and capability as people (Judge, Locke, & Durham, 1997). People with high core self-evaluations are well adjusted, positive, self-confident, and efficacious, and they believe in their own agency (Judge, Erez, Bono, & Thoresen, 2003). Individuals with high core self-evaluations appraise demands more positively, have greater ability to cope with these demands effectively, and thus have more resources available to invest in the performance of their work roles (Judge & Hurst, 2007)¹⁰

Effectiveness

To evaluate employee's effectiveness/productivity authors used 5 item scale.

One item was adapted and modified from Wayne and Ferris (1990) to assess overall productivity. However, to reduce the likelihood of bias in the self-reporting of one's own job performance, the referent for each item was changed so that respondents provided the performance rating from the perspective of their supervisor rather than from their own perspective. Accordingly, an example item in this study was „If your direct supervisor would be asked to evaluate your overall productivity how he/she would rate your productivity (1) as less productive in average at your organization and 7 – as the most productive at your organization in comparing with others”. The utility of having respondents provide a performance rating from their supervisor's perspective is supported by the results of recent research by Schoorman and Mayer (2008) who found that such ratings are more highly correlated with actual supervisory ratings than are direct employee self-reports of one's own performance. Employee self-efficacy was measured using three out of five items of scale which were adapted from an instrument of work-related expectancies (Sims, Szilagy, McKemey, 1976)¹¹, by assessing probability that effort would lead to good performance (*I always achieve my targets in time and in good quality, I feel fully confident on my skills to perform this job according to highest expectations, Job quality and volume that I perform daily usually fits with or even exceeds expectations towards me*).

Emotional competence is crucial for employees in working environment characterized by stress, intensive load, job autonomy and high self-responsibility. Emotional competence refers to individuals' perceptions of their own emotional abilities on four dimensions: understanding one's emotions, understanding others' emotions, regulations one's emotions and utilization of one's emotions. Employees with high emotional competence are likely to adopt positive coping strategies in the workplace. As suggested by Jordan, Ashkanasy and Hartel (2002) employees with low emotional competence are not well equipped to deal with affective consequences of job-related tension and are likely to react in way that not contribute overall performance¹². Therefore authors propose to include one's ability to direct emotions toward constructive

¹⁰ Rich L.B., Lepine J., Crawford E. J, Job Engagement: Antecedents and Effects on Job Performance, *Academy of Management Journal* 2010, Vol. 53, No. 3, pp. 617-635, 622 p.

¹¹ Wright B.E., The Role of Work Context in Work Motivation: A Public Sector Application of Goal and Social Cognitive Theories, *Journal of Public Administration Research and Theory*, Vol. 14, No. 1, pp. 59-79, 65.

¹² Kim T., Cable D.M., Kim S., Wang A.J, Emotional Competence and Work Performance: The mediating Effect of Proactivity and Moderating effect of job autonomy, *Journal of Organizational Behaviour*, 2009 (30), pp. 983-1000, 985 p.



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activities (utilization's dimension) in knowledge-worker productivity's evaluation scale. (*I am fully confident on ability to solve problems in my daily work*)

Commitment

In the context of this study, we also defined organizational commitment as multifaced concept. Commitment is one of the most often studied concepts with different measurement approaches, using from 6 to 33 items for evaluation this behavioural. When composing our understanding of the concept we adapted and formulated items covering several angles of the concept. First, we drawn loyalty idea from conceptualization of affective commitment as it explain attachment to organization (loyalty means both unwillingness to leave – *I would prefer to stay with my current company even if someone offered another good job*, and readiness to identify oneself with organization – *I am ready to recommend my company where to work*). We included also two items of overall job satisfaction as it is component of loyalty. Job satisfaction is important attitudinal variable that reflects an evaluative judgment of one's work circumstances (Weiss, 2002)¹³ (*In general I feel fairly rewarded, I am satisfied with my current job*). Second, as committed employees are more willing to participate in 'extra-role' activities, such as being creative or innovative (Katz & Kahn, 1978) we mirrored this enhancing power of proactive behaviour (*This company inspires to do the best I can; I am ready to go the extra mile to make my company successful*).

Other Self-Report Measures

One more „self-made” factors solution was used in analysis for exhibition of concept on atmosphere at workplace. Muros (2007) measured positive workplace emotions using a measure that combined scores on items that referred to the degree of enthusiasm, happiness, and optimism experienced at work. To measure the emotional aspect of engagement, we drew idea from Russell and Barrett's (1999) research on *core affect*, defined as a somewhat generalized emotional state consisting of two independent dimensions – pleasantness (feeling positive – *Colleagues at my team are energetic and positive*) and activation (a sense of energy – *There is a energetic working atmosphere*).

We measured value congruence using only one item taken as example from Caldwell, Chatman, and O'Reilly (1990) that focus on the alignment of employee values with organizational values (*Internal values and culture in my company fits my personal values*).

Helping coworker behavior (*I help my coworkers with my expertise and knowledge*) was obtained and modified from Coleman and Borman's (2000) scale.

Results

The aim of the research was to find out how does the efficiency and the significance of factors impacting it differ in small and large telecommunication companies operating in Latvia, as well as to compare the evaluation of the employees in these particular companies with that of other company employees. When comparing mean values of all essential variables among the

¹³ Aaron C.H. Schat, Michael R. F., Exposure to psychological aggression at work and job performance: The mediating role of job attitudes and personal health, *Work & Stress* Vol. 25, No. 1, January-March 2011, pp. 23-40, 30 p.



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three groups (Figure 1 and Figure 2), we conclude that, first of all, telecommunication companies differ from other firms in terms of ensuring motivation and efficiency; secondly, employees from a small telecommunication companies overall more highly assess the realization of all motivation attributes comparing with large companies in the same sector. This could be explained with greater employee loyalty/commitment due to the advantages of a smaller company, namely, being able to ensure a more family-like environment, more rapid reaction towards the needs of employees etc.

Initially, the authors assumed that the efficiency of an employee is influenced by such factors as commitment, different motivational factors (hygienic and motivators), ensuring the work place with the necessary technologies and systems, as well as the emotional state in a workplace. These factors were defined as independent variables and created by applying Principal Component Analysis (beforehand each hypothetical factor was defined as a scale which encompasses a set of particular statements). In order to find out to how large extent the above mentioned factors influence employee efficiency, we applied linear regression analysis for all three research subjects or separate data files – small, large telecommunication company and overall set of employed. Disregarding the fact that the independent variables were created consciously and therefore the risk of collinearity, all regression equations displayed sufficiently good results which allowed continuing the analysis.

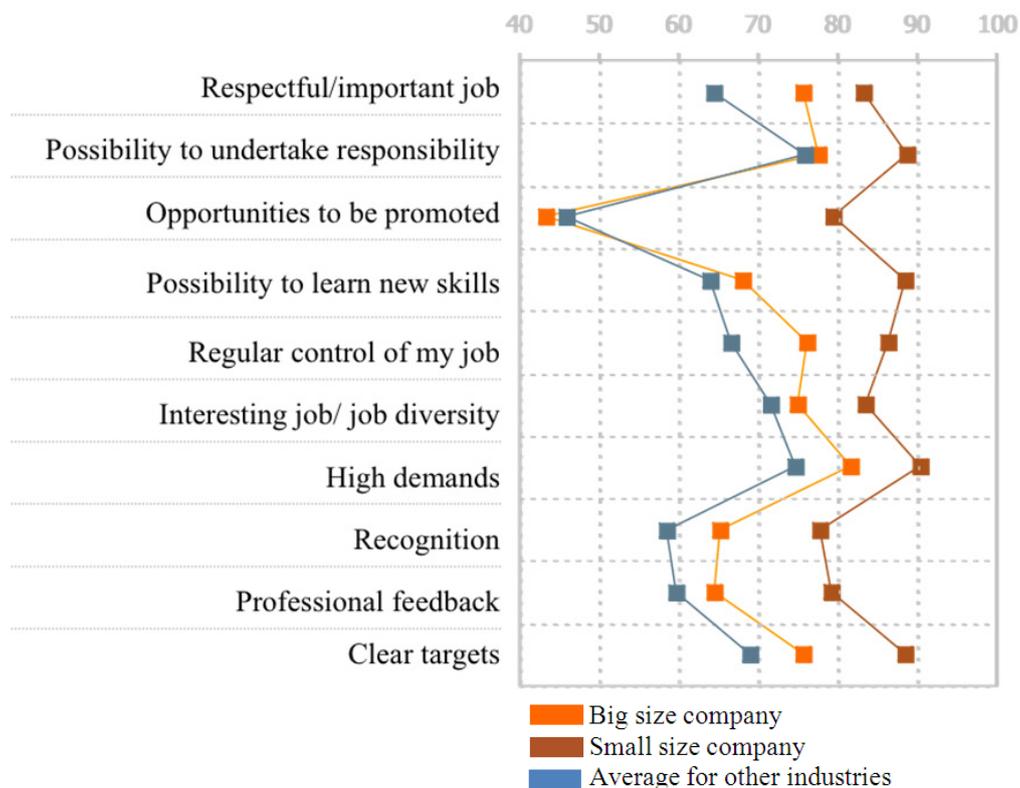


Figure 1. Comparisons on average evaluation on motivators



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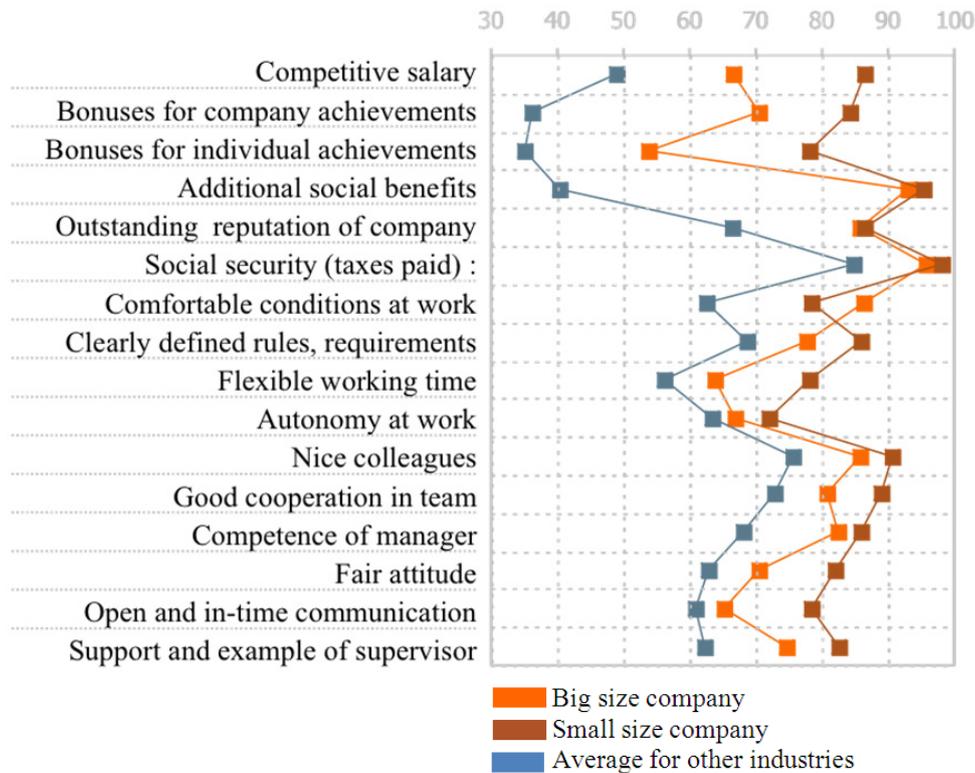


Figure 2. Comparisons on average evaluation on hygienic factors

Source: Authors' transactions based on survey data (Survey method – online, sample method – self-selection, sample size – total 1543, 2011).

From the regression results (Table 2) we can conclude that the efficiency in large telecommunication companies is mostly affected by technological support (β 0.27) and satisfaction with job as such (β 0.27). However, in small companies employee commitment (β 0.30) and technological support (β 0.25) emerge as the most important factors affecting efficiency. Moreover, overall commitment assessment in a small company is higher than in the other two groups (Figure 3) which might imply that employee engagement is the advantage of small telecommunication companies. Taking into consideration knowledge workers and the direction of the economic structure development, this implies that in a particular niche these companies might become a threat to the large firms. In regards to the overall set of employees, positive workplace emotions (β 0.26), commitment (β 0.21) and satisfaction with job as such or inner motivation (β 0.23) are the most significant factors affecting the efficiency of this group. The fact that the Hygiene factors are with a negative sign in all groups and are statistically insignificant in both small samples can be explained in two ways. It is plausible that negative sign could be due to different evaluation scales in the assessment of dependent and independent variables (possess/does not possess when evaluating motivators vs. agree/disagree when



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evaluating the efficiency). Another explanation could be regarding the logical data analysis, for instance, if we assume that the equation is internally stable (i.e. not affected by the differing scales), then when increasing the employee satisfaction with hygiene factors, one would expect that the employee efficiency will decline.

Table 2

Regression analysis results on measuring impact on effectiveness

	Big size Telecom company			Small size Telecom company			All industries		
	Stand β	Sig.	Adjusted R Square	Stand β	Sig.	Adjusted R Square	Stand β	Sig.	Adjusted R Square
Commitment	0.02	0.840		0.30	0.03		0.205	0.000	
Technical provision	0.27	0.000		0.25	0.01		0.104	0.001	
Positive workplace emotions	0.22	0.016		0.18	0.64		0.262	0.000	
Hygienic factors	-0.18	0.088		-0.13	0.307		-0.152	0.001	
Motivators	0.27	0.007		0.05	0.644		0.227	0.000	
a. Dependent Variable: Effectiveness			0.23			0.26			0.33

Source: Authors' calculations based on survey data (Survey method – online, sample method – self-selection, sample size – total 1543, 2011)

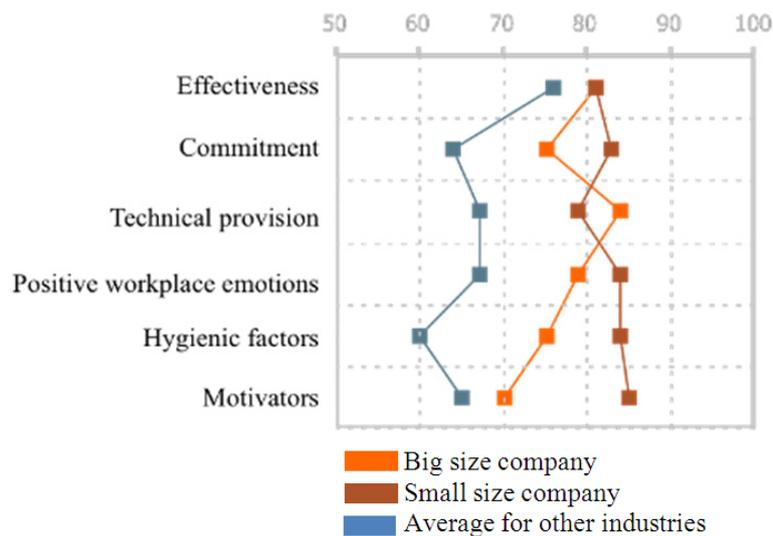


Figure 3. Comparisons on average weighted evaluation on concepts

Source: Authors' transactions based on survey data (Survey method – online, sample method – self-selection, sample size – total 1543, 2011)



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On the one hand, this could be plausible in an economy which is characterized by labour force insufficiency in the market. However, one must also consider the time period when the data was gathered (January 2011) and which could be still characterized as the time of crisis when the hygiene factors were to be especially important. Therefore, the authors suggest performing a more profound hygiene factor analysis in regards to employee efficiency. The dependent variables which were included in the regression equations does not provide sufficiently significant explanation in the variation of the dependent variable ($R^2= 0.23; 0.26; 0.33$). Because the statistical indicators for the largest group in the sample (all industries) are in general good, the authors conclude that the inner structure of the scale, namely, the chosen definitions of concepts, are optimal and can be applied in further research.

Conclusions

Our study confirmed that relationships between measures of organizational commitment and job performance are sufficient to affirm assumption on commitment role in predicting job related behaviour. One of the findings of the study is that internal and external motivators differently affect the commitment – if internal motivators have positive impact on effectiveness, in contrast external motivators in certain level can negatively influence growth of effectiveness.

Based upon results of the research, the authors conclude that in order to create a motivating and effective behavior practice in big telecommunication companies, it is necessary to shape a motivating policy with such factors as positive working emotions and internal motivators. Understanding of link between company existing culture and commitment or motivation can help to make corporate mission statement, execution of supporting police more focused

Limitations

Authors based this study on assumption of the hypnotised scale structure and used this “self-made” factor structure for regression analysis. Although multicollinearity statistics for all factors are satisfactory, there can be some drawbacks in explanational power of regression equity.

Factors solution “positive workplace emotions” did not receive sufficient reliability support (Cronbach’s Alpha 0.76; 0.79; 0.69). Authors conclude that some items (value congruence, personal involvement in helping co-workers) from this factors solution had to be included into Commitment concept. Further analysis must take into account previous results on commitment scale validity, for. Example, Meyer et al. (2004) in accordance with Becker, Billings, Eveleth, and Gilbert (1996), indicated that “the primary bases for the development of affective commitment are personal involvement, identification with the relevant target, and value congruence”¹⁴¹⁵

¹⁴ Meyer J.P., Becker T.E., Vandenberghe C., Employee Commitment and Motivation: A Conceptual Analysis and Integrative Model, Journal of Applied Psychology Copyright 2004 by the American Psychological Association 2004, Vol. 89, No. 6, pp. 991-1007, 994 p.



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ASYMMETRIC SHOCKS' IMPACT ON LATVIAN FINANCIAL SYSTEM STABILITY

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Abstract

Financial disturbances can be costly. In particular, systemic events in financial markets, such as banking crises, often affect the whole society in a deeply traumatising way. Consequently, it is important to anticipate risks of such adverse development so as to try to prevent that kind of disaster and ensure financial stability. Author of this paper analyses fragility of financial system of Latvia to the fluctuations in global economy and changes in direction of international capital flows. Latvia is a small, open economy. Hence, greater role is played by Foreign Direct Investments (FDI), on the one hand gearing Gross Domestic Product (GDP) growth through banks' sector and on the other hand making economy more vulnerable to global financial fluctuations, causing asymmetric shocks, resulting in current account deficit. Author of the paper also investigates financial sustainability of Latvia to inevitable changes in global economy raised by sub-prime crisis in USA. Author of the paper is modelling financial system stability index in Latvia, and gives recommendations for creation of preventive measures to minimize asymmetric shocks' impact.

Preface

Financial disturbances can be costly. In particular, systemic events in financial markets, such as banking crises, often affect the whole society in a deeply traumatising way. Consequently, it is important to anticipate the risks of such adverse development so as to try to prevent that kind of disaster and ensure financial stability. This paper aims at construction of financial fragility composite index for Latvian financial system and estimating econometric model that describes mentioned index development. Econometric modelling has been performed using EViews software. Quarterly data sample (from 2001:2 till 2011:1) has been collected from Financial and Capital Market Commission of Latvia, Bank of Latvia, Central Statistical Bureau of Latvia, statistical office of the European Union, Research Institute of the Centre for Economic Studies.



1. International Experience of Statistical Indicators Usage when Evaluating Financial Stability

In last twenty years researchers, including ones from central banks, have been trying to identify conditions that would ensure financial stability. For this purpose they have used various statistical indicators that characterize and describe vulnerability of financial system.

In reality many central banks in their financial stability reports try to evaluate financial stability related risks while only focusing on few main indicators. Furthermore there are efforts to create unified tools that would allow evaluating level of financial instability or stress.

There are significant advantages to financial systems stability qualitative tools that would allow to follow developments in financial system if compared to qualitative measuring. Qualitative tools would allow policy creators and financial systems participants to:

- 1) better supervise level of financial system stability;
- 2) forecast sources and consequences of financial stress;
- 3) communicate with other institutions and population on current situation and forecasted development in a more efficient manner.

Čihák [1] in his publication defines following characteristics of a good financial stability indicator can be easily calculated, easily interpreted, is based on adequate assumptions and has clear theoretical base.

Author of this working paper will evaluate newly established Latvian financial stability indicator taking into account financial stability indicators characteristics that were mentioned earlier. However in author's opinion there are 2 more characteristics of a good financial stability indicator – it gives true picture if applied to historical data; it can be economically modelled using fundamental factors of national economy.

Approach on forming and developing financial stability assessment tools has changed with the course of time. Eventually centre of attention for financial stability assessment and supervision has shifted from micro to macro level. If before early warning indicators that reflected risk of insolvency for specific institutions were analysed then now central position has been taken by assessment of broad financial market risks, institutional and infrastructure risks.

Supervision of financial system at macrolevel is very important and after last world financial crisis it has become even more urgent. For example, in 2010 UK Financial Services Authority chairman A. Turner said: “We need a new set of macro-prudential policy tools which will enable the authorities more directly to influence the supply of credit [...] These tools are needed because credit/asset price cycles can be key drivers of macroeconomic volatility and potential financial instability.” [2]. In 2010 H. Hanoun [3], deputy General Manager of the Bank for International Settlements, offered to add a level of macro-prudential policy to the micro-prudential policy base, therefore eliminating systemic risks. In H. Hannoun's opinion this additional level would have two important aspects: its goal would be to ensure stability in the course of time; it would ensure financial system stability in any given time period.

As it is seen from above macro supervision plays a great part in ensuring financial stability. Therefore development of relevant tools in order to effectively supervise macro economy is crucial. Policy makers and academic researchers focus on several quantitative indicators aiming to assess financial stability. International Monetary Fund developed set of financial stability indicators [4]; also Hawkins and Klau [5], Nelson and Perli [6], Gray and



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others [7] work can be mentioned as examples. Picture below summarizes sectors of economy that are usually analysed in scope of financial stability assessment in research papers (see Figure 1).



Figure 1. Sectors of economy that get usually analysed in scope of financial stability assessment

Source: Blaise and Kaushik work “Measures of financial stability” [8], author’s picture

Analysing real sector the most often used statistical indicators are: GDP changes trend and pace; fiscal position of government; inflation.

Pace and trend of GDP changes indicate economy health and development potential. GDP is an important indicator, especially in conjunction with such economic indicators as loans volume and fiscal deficit. Negative or low GDP trend points to economy in recession. Excessively high GDP trend could indicate economy overheating and unsustainable growth.

Government’s fiscal position shows possibility to attract additional funding for its unbalanced expenses. High level of sovereign debt to GDP indicates relatively unsustainable sovereign debt and country exposure. In scope of inflation various price indices dynamics are assessed. High inflation indicates weakening of economy structure, debt increase and also increasing risk of external competitive capacity decline. Too low inflation could encourage financial bubbles.

Similar economic indicators describing above mentioned sectors’ development and related financial stability risks are used both in scientific research papers and central banks’ financial stability reports (see Figure 1). It is noteworthy that some central banks actively use composite indices (see Table 1. Use of composite indices in financial stability reports).

However, as it can be seen from the table, use of composite indices for financial stability assessment is not yet widely spread and used indices are primarily indices of banking and financial state. Interesting fact is that none of the mentioned countries and international institutions has developed monetary condition index. According to publicly available information none of the above mentioned composite indices has yet been developed and used for financial stability analysis in Latvia. All that together even further stresses the importance of this working paper. Composite indices advantages and development opportunities and principles are discussed in the next part of this working paper.



Table 1

Use of composite indices in financial stability reports

	Financial stability index	Banking index	Index of financial condition	Monetary condition index
Czech Republic		X		
Switzerland		X	X	
UK	X		X	
Hungary			X	
Turkey		X		
ECB			X	
IMF	X	X	X	

Source: Blaise and Kaushik work “Measures of financial stability” [8]

2. Establishment of Latvian Financial System Stability Index

In 2010 Albulescu created composite financial stability index for Romania, thus greatly contributing to the development of financial stability assessment methodology described in research literature [9]. Approach described in his publication is taken as a base for Latvian financial stability index establishment. Working paper’s author will analyse available statistical data and will establish new Latvian financial stability assessment method that will be specifically adjusted for Latvian economic conditions. Working paper’s author establishes Latvian financial system stability index using five sub-indices that are also established by this working paper’s author and that describe development of Latvian financial system. These 5 sub-indices are incorporated in one system with the development of domestic and foreign economic and financial environment (see Figure 2): (a) financial development index, (b) financial vulnerability index, (c) financial stability index, (d) European economic environment index and (e) European financial environment index.

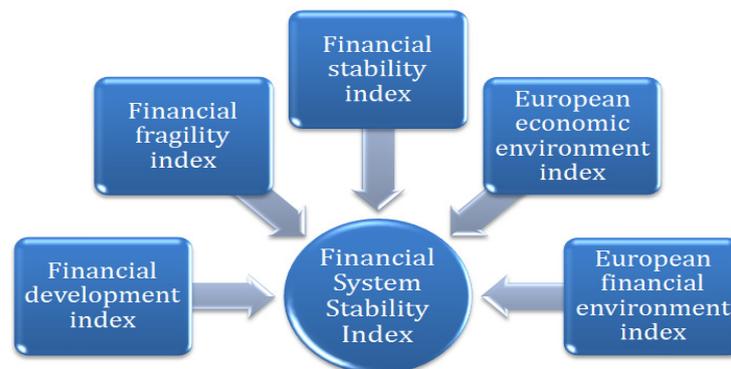


Figure 2. Latvian Financial System Stability Index comprising indices

Source: author’s picture



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(a) Financial development index

Working paper's author derives financial development index from 10 statistical indicators that describe Latvian financial system development and its effectiveness: ratio of financial market level of capitalization to GDP; ratio of disbursed Latvian lat (LVL) loans to GDP; ROE; ROA; banks funding effective interest rate; effective deposit interest rate; effective loan interest rate; net interest income margin; interest rate spread; banks reforms and interest rates liberalization index.

(b) Financial vulnerability index: share of credit to households for housing purchases in credit total issued to residents; loans issued to non-banks to deposits; ratio of total deposits to M2 (broad money); share of demand deposits in total deposits.

(c) Financial stability index: inflation level; ratio of state budget deficit to GDP; ratio of current account deficit to GDP; real effective exchange rate value increase or deterioration.

(d) European economic environment index: Eurozone economics climate index; Eurozone inflation level; Eurozone growth rate.

(e) European financial environment index:

Respectively, in order to develop European financial environment index paper's author has used data on harmonized long-term interest rates for Eurozone countries that are evaluated by the ECB and that represent government bonds with 10 year maturity. Variance is calculated from selected interest rates; in author's opinion this variance characterizes financial environment of the Eurozone.

After data selection composite index is calculated as a weighted average of chosen variables. Method of weighting indicators can differ: using overall factors analysis; weights can be chosen based on the size and importance of the market that is described by specific economic indicator; using sample's cumulative distribution function; using macroeconomic model's simulation results; assigning identical weights to all economic indicators.

Last approach is the most common and includes indicators' normalization and establishing of composite index using same indicators' weight. Blaise and Kaushik [8], as well as Albulescu [9] working paper's author will use same weights for all selected economic indicators in order to establish Latvian financial stability index.

Similar to Albulescu approach this working paper's author will use empirical normalization which in its nature is similar to mathematical normalization where lower and upper limits define interval from 0 to 100 which is achieved using formula (1) and multiplying its right part with 100.

Empirical normalization method is based on formula:

$$Y_t = \frac{X_t - \min(X)}{[\max(X) - \min(X)]}, \quad (1)$$

where Y_t is variable's normalized time series value for period t , X_t is variable's actual time series value for period, $\min(X)$ un $\max(X)$ are respectively variable's time series minimum and maximum values.

Normalization of selected indicators and establishment of Latvian financial system stability index's sub-indices have been performed using formula (1). That results in definition of Latvian financial system stability index. Depending on sub-factors' impact vectors reverse formula has also been applied to avoid cases when normalized factors eliminate each other's



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impact on sub-index dynamics (for example, inflation level increase negatively impacts financial vulnerability index while current account deficit improvement positively impacts financial vulnerability index).

$$Y_t = \frac{\max(X) - X_t}{[\max(X) - \min(X)]}, \quad (2)$$

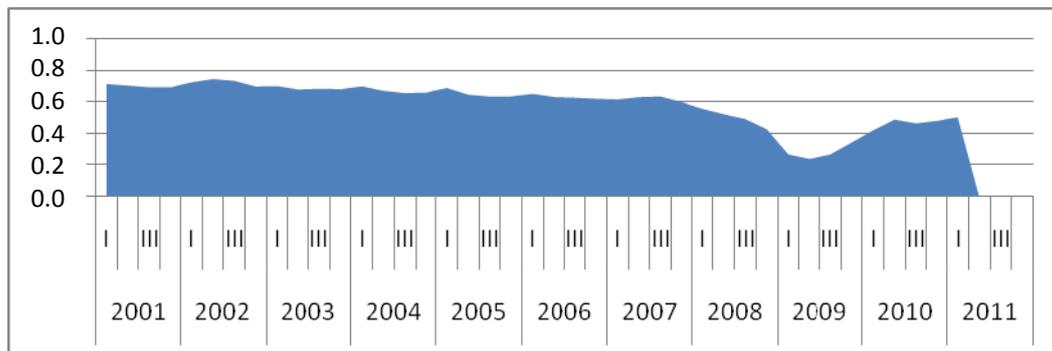


Figure 3. Latvian financial system stability index

Source: data from FCMC [10], Bank of Latvia [11], CSB [12], author's calculations

One could point out that Latvian financial system stability has been consistently decreasing starting from 2001 (see Figure 3). Especially rapid drop in Latvian financial system stability has been observed starting from early 2008, marking economic problems related to Latvian economy overheating.

As it has already been mentioned, Latvian financial stability index comprises 5 sub-indices and gets calculated as a weighted average with identical weights assigned to all sub-indices, in this way assuming same level of influence for all involved indices. First of them is Latvian financial development index (see Figure 4). As it can be seen from the picture since joining the EU Latvian financial development index has been gradually improving up until the beginning of 2008.

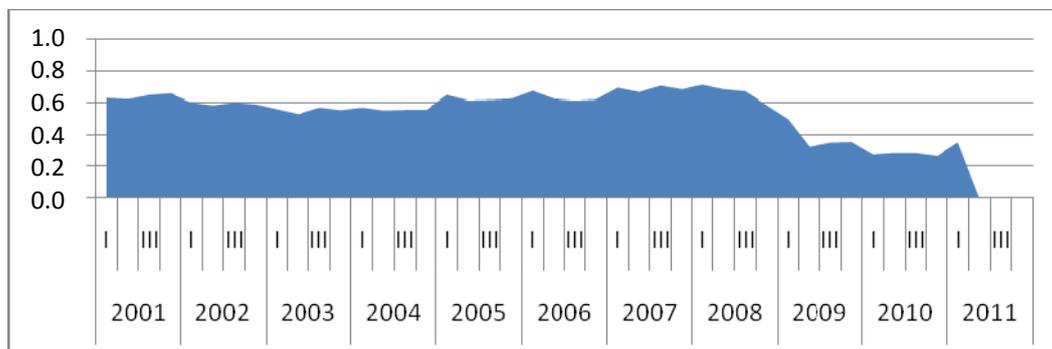


Figure 4. Latvian financial development index



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Source: data from FCMC [10], Bank of Latvia [11], CSB [12], author's calculations

Latvian financial vulnerability index is the next component of Latvian financial system's stability index (see Figure 5). Here we can see a completely different picture. It is clearly seen that Latvian financial vulnerability index began to decrease starting from the second half of 2005, thus pointing at increasing economic risks. This period corresponds to the beginning of Latvian economy overheating.

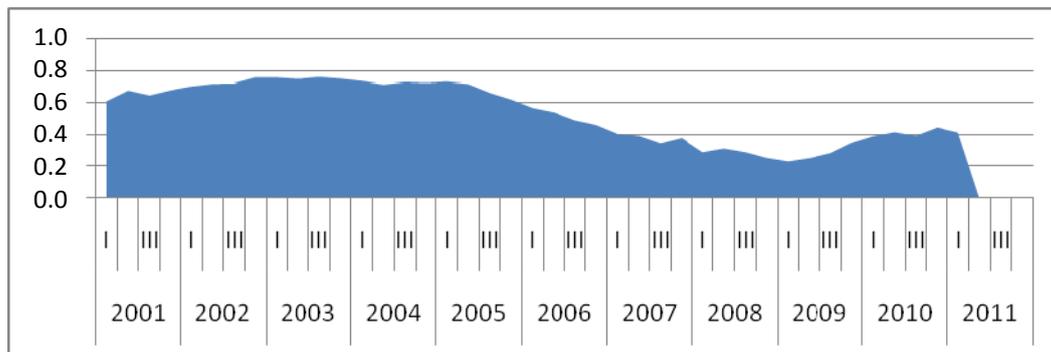


Figure 5. Latvian financial vulnerability index

Source: data from FCMC [10], Bank of Latvia [11], CSB [12], author's calculations

Poor quality assets write-offs and cessions to related 3rd party companies artificially improve banks' financials. Therefore there is a risk that it is impossible to reflect those actions using econometric modelling based on fundamental economic factors.

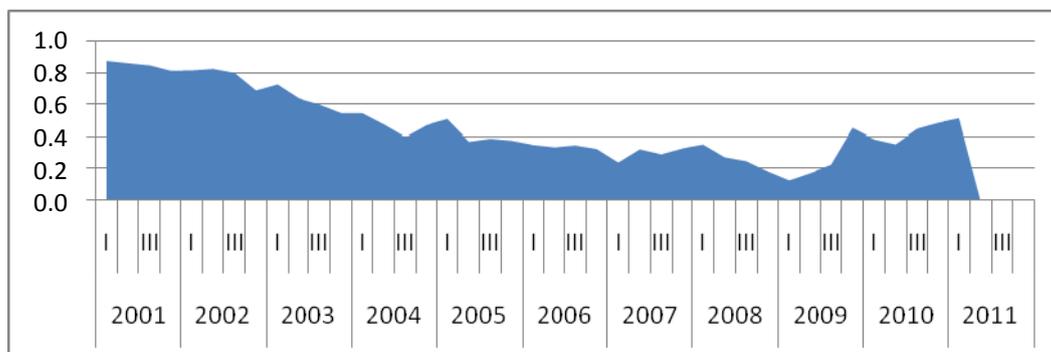


Figure 6. Latvian financial stability index

Source: data from FCMC [10], Bank of Latvia [11], CSB [12], author's calculations

Second to the last index that is included in Latvian financial system stability index is European economic environment index (see Picture 7). European economic environment index dynamics reflect European economy's cyclical development. It is interesting to note that



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European economic environment index started to notably worsen from as early as the beginning of 2008; it mainly happened due to unfavourable price dynamics in world markets.

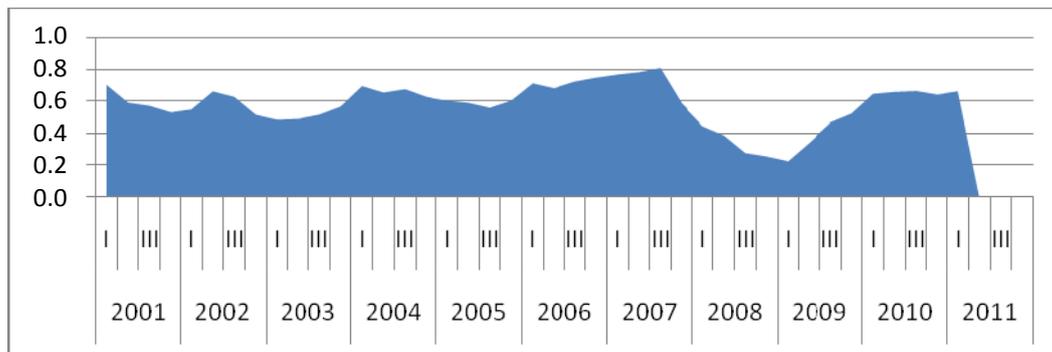


Figure 7. European economic environment index

Source: data from Eurostat [13], CESifo [14], author's calculations

Analysing last sub-index of Latvian financial system stability index it can be derived that in time period from 2002 to 2008 European financial environment was very favourable and sustainable (see Figure 8). However, world financial crisis has rapidly changed the picture, shifting European financial environment index down to very unfavourable. It has remained at that level throughout 2009. In 2010 conditions have improved, but European financial environment has not reached even half of what it has been before, pointing at structural issues in some of European countries.

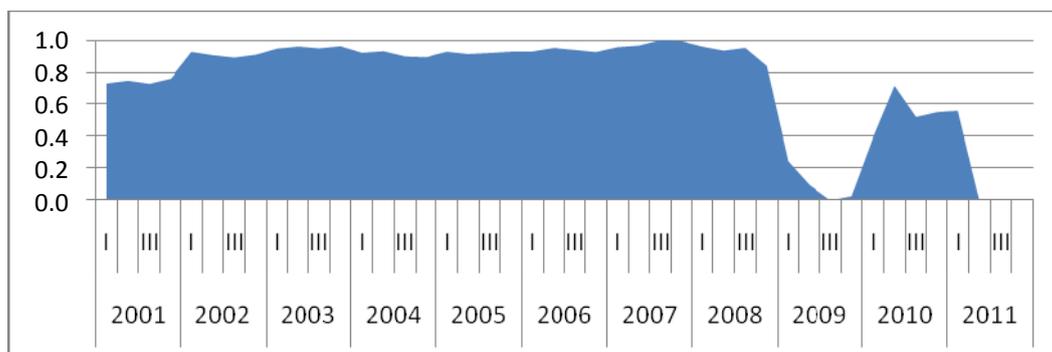


Figure 8. European financial environment index

Source: data from Eurostat [13], CESifo [14], author's calculations

Evaluating all developed indices together it can be concluded that they reflect situation in Latvia and world in a very efficient manner. Speaking of rapid decline in Latvian financial stability index in 2008 it is evident that it pointed at the necessity of quick response measures from economy policy makers in order to prevent situation's further worsening. It either has not



been done or has not been done effectively. But even more interesting conclusions can be drawn from established sub-indices dynamics analysis.

3. Latvian Financial System Stability Index Modelling

Econometric error correction model has been developed in order to assess macroeconomic fundamental factors' impact on Latvian financial stability index dynamics. This model belongs to the class of dynamic regression models and is used to analyse short-term impacts. It comprises two parts:

- long-term equation;
- short-term equation with error correction factor.

Long-term equation reflects fundamental variable impact on dependent variable and is based on long-term regularities that exist among economic time series used in modelling. In other words, mutually cointegrated economic time series have to be used while assessing long-term econometric equation. Cointegration power must be 1, or in other words cointegration analysis must conclude that there is only one cointegration vector among used time series. This would mean that there is long-term correlation between time series and that it can be written down in one equation.

Theoretical form of long-term equation for the econometric model in question can be written down as follows:

$$FSI_t = c + \sum_{i=1}^n \beta_i F_{i,t} + \varepsilon_t, \quad (3)$$

where c is constant, FSI_t is Latvian financial stability index at time period t , c is constant of the equation, $F_{i,t}$ is macroeconomic fundamental factor i at time period t and ε_t is regression error at time period t .

Econometric hypothesis on β coefficient signs in equation 3 will be defined after establishment of assessable econometric model with specific macroeconomic factors.

Construction of short-term equation with error correction factor is the second step of error correction model creation:

$$\Delta FSI_t = c + \sum_{i=1}^n \alpha_i \Delta F_{i,t} + \gamma \varepsilon_{t-1} + \varepsilon_t, \quad (4)$$

where Δ represents difference, γ is error correction coefficient, ε_t is regression error in time period t .

Actual econometric model of long-term equation can be depicted in following way:

$$FSI_t = c + \beta_1 F_{1,t} + \beta_2 F_{2,t} + \beta_3 F_{3,t} + \beta_4 F_{4,t} + \beta_5 F_{5,t} + F_{6,t} + \varepsilon_t, \quad (5)$$

where

- F_1 – Ratio of foreign currency loans to nominal GDP in period t ,
- F_2 – 3 month interbank market interest rate RIGIBOR in period t ,
- F_3 – Nominal effective currency exchange rate (logarithm),



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F_4 – Real workforce effectiveness (logarithm),

F_5 – Actual real GDP level deviation from potential real GDP to real GDP in period t ,

F_6 – Actual unemployment level deviation from structural unemployment level in period t .

In order to evaluate level of structural unemployment and potential level of real GDP Hodrick-Prescott filter has been used. It allows separating short and long-term fluctuations from the economic variable, thus evaluating long-term development trend of the variable; this trend is traditionally treated as structural trend or potential level. During variable filtering standard Hodrick-Prescott's filter „smoothing” coefficient has been used – the one that is normally used for smoothing quarterly data, $\lambda = 1600$.

Results of econometric modelling of Latvian financial stability index for long-term equation are reflected in next table (see Table 2). During econometric modelling 6 out of 14 selected fundamental indicators that characterize economic development showed the best results. As it can be seen all evaluated coefficients are of statistical importance and their signs comply with previously expressed economic hypothesis. Variables variances within the econometric model explain more than 96% of long-term fluctuations of Latvian financial stability index.

Table 2

Modelling Latvian financial stability: long-term equation result

Dependent variable: ΔFSI_t

Method: Least squares

Sample: 2001 year 2 quarter – 2011 year 1 quarter

Included observations: 41

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	-3.193	1.789	-1.785	0.083
Ratio of foreign currency loans to nominal GDP	-0.128	0.014	-9.246	0.000
3 month interbank market interest rate RIGIBOR	-0.011	0.001	-8.115	0.000
Nominal effective currency exchange rate (log)	0.749	0.340	2.205	0.034
Real workforce effectiveness (logarithm)	0.783	0.260	3.006	0.005
Actual real GDP level deviation from potential real GDP to real GDP	0.770	0.227	3.386	0.002
Actual unemployment level deviation from structural unemployment level	0.012	0.005	2.557	0.015



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R-squared	0.969	Mean dependent var	0.587
Adjusted R-squared	0.964	S.D. dependent var	0.133
S.E. of regression	0.025	Akaike info criterion	-4.362
Sum of squared resid	0.022	Schwarz criterion	-4.069
Loglikelihood	96.412	Hannan-Quinn criter.	-4.255
F-statistic	179.808	Durbin-Watson stat	1.679
Prob(F-statistic)	0.000		

Source: author's calculation

Results gained from evaluating the long-term econometric model are interpreted as follows:

- Foreign currency loan weight increase in GDP by 10 bps reduces Latvian financial stability by 1.28 bps with other variables remaining unchanged;
- 3-month RIGIBOR increase by 1 bps reduces Latvian financial stability index by 0.01 bps with other variables remaining unchanged;
- Nominal effective exchange rate increase by 10% improves Latvian financial stability index by 7.49 bps with other variables remaining unchanged;
- Real workforce effectiveness increase by 10% improves Latvian financial stability index by 7.83 bps with other variables remaining unchanged;
- Actual real GDP positive (negative) deviation from potential real GDP to real GDP ratio increase by 1 bps improves (worsens) Latvian financial stability index by 0.77 bps with other variables remaining unchanged;
- 1 bps increase of actual unemployment level's positive (negative) deviations from structural unemployment level improves (worsens) Latvian financial stability index by 0.01 bps with other variables remaining unchanged.

It is worth noting that quality of evaluated econometric model is good. Its F-statistics results prove its correct structure and Durbin-Watson statistics is satisfactory, pointing at autocorrelation absence amongst model errors.

Following econometrical tests has been performed to make sure that there is cointegration between model variables, the variables are stable, there is no error series correlation and etc.: Unit root, Dickey-Fuller, Breusch–Godfrey regression error, Heteroscedasticity and CUSUM.

Due to paper size restrictions author is not able to provide full description and necessity of performed tests.

Evaluating long-term econometric model it is possible to evaluate short-term error correction model, too, based on its theoretical definition (2).

$$\Delta FSI_t = c + \beta_1 F_{1,t} + \beta_2 F_{2,t} + \beta_3 F_{3,t} + \beta_4 F_{4,t} + \beta_5 F_{5,t} + \beta_6 F_{6,t} + \gamma \varepsilon_{t-1} + D_{2009:4} + \varepsilon_t, \quad (6)$$

In addition to selected fundamental variables dummy variable $D_{2009:4}$ has been added – its value is 0 at all periods except for Q4 of 2009 when its value is 1.

It has been done because of the fact that in given periods selected fundamental variables couldn't accurately define short-term dynamics of Latvian financial stability index. This could be due to the banking sector actions that resulted in non-earning portfolio write-off and bad quality assets hand over to 3rd parties with the purpose to show better financial results on



books. In order to eliminate effect of those manipulations on econometric model's evaluation, dummy variables have been introduced.

Due to paper size restrictions author is not able to provide full description of short-term equation calculation.

4. Conclusions and Suggestions

Firstly, analysing Latvian financial system stability index comprising sub-indices one can conclude that each and every sub-index has different development trend dynamics that are supported by very low level of mutual correlation (see Table 3). That means that dynamics of every developed sub-index show unique economic processes defining Latvian financial system's stability.

Table 3

Correlation among sub-indices of Latvian financial system stability index quarterly movements

	Latvian financial development index	Latvian financial vulnerability index	Latvian financial stability index	European economic environment index	European financial environment index
Latvian financial development index	1.00				
Latvian financial vulnerability index	-0.25	1.00			
Latvian financial stability index	0.09	0.17	1.00		
European economic environment index	-0.05	0.00	0.10	1.00	
European financial environment index	0.20	0.24	-0.05	0.08	1.00

Source: author's calculations

Secondly, sub-indices analysis allows to determine that Latvian financial vulnerability began to worsen in 2005, however, Latvian financial stability downward movement started in 2002, that in its turn shows the necessity for Latvian economic policy makers to get more actively involved in preventing growing risks of economy.

It is worth to add that overall Latvian financial system has been relatively stable up until 2008, but this was due to the fact that one part of this system has been experiencing positive changes while the other has been accumulating growing risks. Therefore, analysing only overall Latvian financial system stability index and ignoring sub-indices can lead to missing important signals on Latvian financial system stability potential risks and as a result being late on applying adequate improvement measures.



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Following are conclusions and suggestions based on author's performed research and analysis:

- Newly established index and its accompanying methodology can be further used in follow-up research and Latvian financial stability index improvement
- Latvian economic policy makers need Latvian financial system stability index that can be: easily calculated; easily interpreted; easily communicated across; defined econometrically using fundamental economic factors; used for taking timely response measures on financial system stability emerging threats.
- From 14 selected fundamental economic factors only 6 proved their econometric modelling usefulness. These factors are: ratio of foreign currency loans to nominal GDP; 3 month interbank market interest rate RIGIBOR; nominal effective currency exchange rate; real workforce effectiveness; actual real GDP level deviation from potential real GDP to real GDP; actual unemployment level deviation from structural unemployment level.
- Latvian financial system stability index established in this working paper would have allowed to determine economy's critically grown risks in 2008 and would have given at least half a year before the beginning of economic correction to perform loss minimising measures.

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INSURANCE ACTIVITIES GOVERNANCE: WORLD EXPERIENCE IMPLEMENTATION

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Keywords: essence, reasons and mechanism of insurance activities state governance, world experience of insurance markets organization economic policy, structure of insurance markets

Abstract

The paper considers the following issues analysis: the reasoning of insurance activities state governance, understanding of financial (insurance) activities governance system formation structure, process and mechanism of insurance activities state governance (goals, instruments and insurance organization structure). Special attention is drawn to the goals (solvency assessment control, equal and just access to insurance services, national insurance undertakings support, new type of continuous and sustainable economic growth provision) adequate to the methods and principles of economic policy (liberal, state, restriction of market organization mechanisms), and to the types of insurance market structure (monopolistic, oligopolistic, competitive) in different countries and regions of the world economy. We examine insurance here as a social-economic mechanism (not distinguishing between insurance lines). **The goal** of the article is to promote the idea of financial (particularly insurance) governance necessity whatever is the market structure adequate to the regulatory system having specific objectives and instruments. The **hypothesis** of the article is that processes of globalisation, liberalisation and concentration of the financial capital, have generated new outlines of national and world financial systems (financial convergence and a financial conglomeration) causing overcoming from functional to universal governance system development. The **methods** of the article deals with analysis-synthesis, historical and logical methods of investigation, methods of international comparisons. The main **summing up conclusion** of the article considers that due to the theory of the industrial organization governance the insurance market is regulated by state and non-state institutions supporting a balance between market and its structure from one side and state from the other side which keeps an equilibrium between market and state failures.



1. Insurance Activities Governance System Formation

Considerable liberalization and advancement of free market principles across national, regional systems and the global economy do not apply to insurance activities, where there is still a significant degree of state and supra-state regulation. That is characteristic even for traditionally liberal economic systems. Reasons for strict insurance activities state governance are as follows:

1. *Social nature* of insurance. Insurance products are in need, because they are necessary not only to the individual, but society as a whole. In many cases the state itself binds citizens to use insurance services, thereby creating the need for state regulation.

2. *Uncertainty of product value*. It is in an unambiguous assessment of costs effectiveness related to the insurance product at the moment of sale, and during the insurer's performance of its obligations, in particular, claims costs and loss control.

3. *Non-transparent price setting*. Pricing setting in the insurance requires expert's assessment of the net premiums rate and obligations to pay claims. Insurance products are intangible by nature and consumer is not able to assess insurance contract at the time of purchase. The products being offered could be designed accordingly and include errors and omissions which may turn out just after insured event. By above mentioned reasons insurance activities regulation is in need to avoid low-quality insurance products and services; to control an insurer for compliance with requirements of law; to prevent the abuse of insured.

4. One more essential reason for insurance activities regulation is that due to certain characteristics, insurance markets' soundness is fragile. Regulation is in need to allow policyholders to revise associated with significant *adverse effects of insolvency and / or financial instability* of insurance companies.

Due to mentioned causation insurance markets governance system could be described by the following scheme (Figure 1), embracing a set of state (and supra-state) regulation and self-regulation institutes. Insurance market as any industrial organization is the main institute of self-regulation and demand-supply interrelation establishment. The institutional part of self-regulatory system are insurers associations keeping the similar tariff's policy from one side and unions of insured – consumers of insurance services and products guided by the law protecting their rights from the other side. Unions provide information about insurance companies behavior into the supervisory authority body as a state institute which observes that the insurers don't break the law applying a set of regulatory tools to the market.

Consequently a system of industrial organization governance (a system of the insurance market regulation in our case) is formed supporting a balance between market and its structure from one side and state from the other side which keeps an equilibrium between market and state failures.

Contemporary world tendencies to the integration of bank's and insurance capital make national states to create legislative system governing new financial institutes (financial conglomerates [1]) activities and to develop new state economic policy providing interconnection and diffusion of banking, insurance, investment, etc. segments of financial market [2] without contradicting to the objective tendency to financial markets and their regulatory systems liberalization that reflects the necessity of market imperfections corrections. Due to the financial convergence process radical changes of developed and emerging markets



governance concepts are going on. Governance separation period and prevailing of functional over universal approaches to different sectors of financial market regulation has finished. However these new phenomena in financial markets development are adequate to the already formed insurance market activities governance that is characterized by very special reasoning and logic (process, structure and mechanism) of its formation and development.

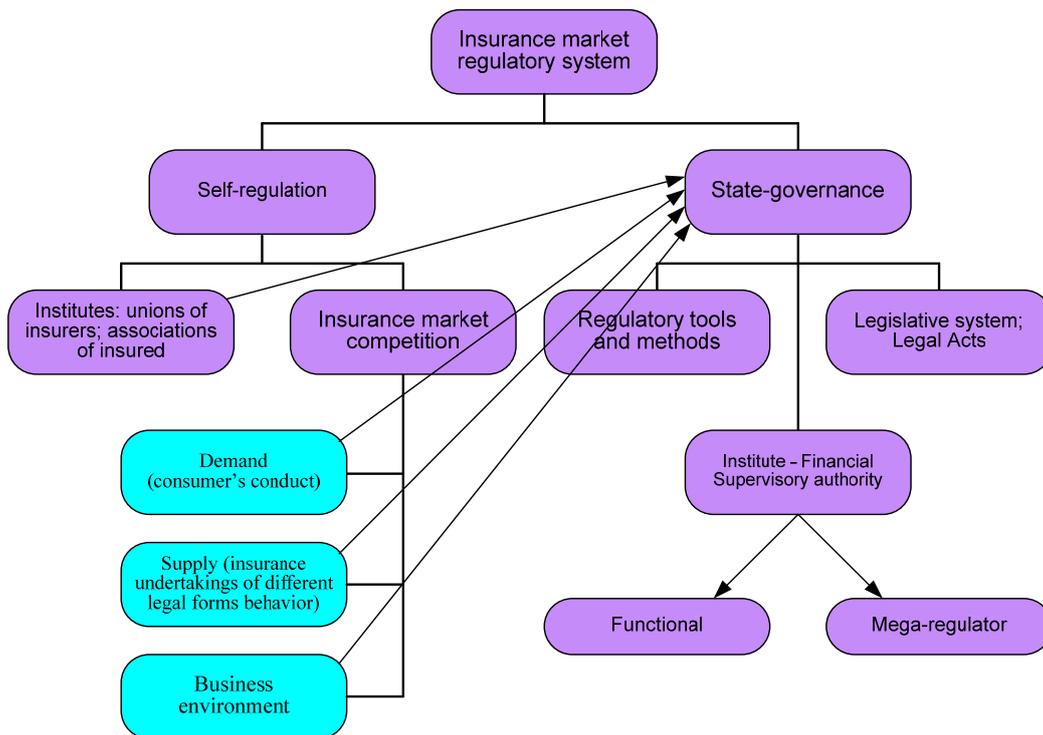


Figure 1. Insurance market regulatory system

2. Process, Structure and Mechanism of Insurance Activities State Regulation

Figure 2 shows the logic of the insurance market regulatory mechanism.

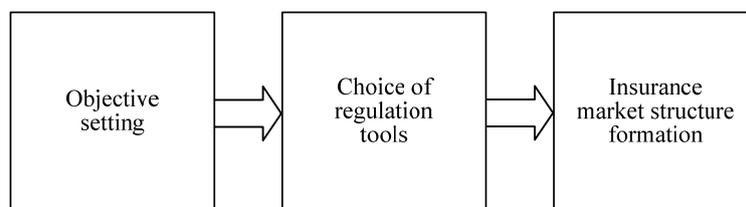


Figure 2. The mechanism of regulation of insurance activities

We figure out the details of the insurance market regulatory mechanism process.



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The Objectives of the Insurance Activities Regulation

The main purpose of the insurance activities regulation is consumer protection and social values encouragement. We identify five specific objectives of insurance regulation: 1) solvency control, 2) affordability and fairness of the product, 3) market stability, 4) domestic insurance companies support, 5) encouragement to sustainable economic development.

Solvency control is the basic regulation initiative and historically the first form of regulation. It is related to the social importance of insurance as an institution of social protection. Regulation of insurance industry is recognized as necessary by the majority of countries and regions in the world economy.

Affordability of the product and fairness are closely connected to the information asymmetry. Insurer's decisions in transactions must be fair as it has more and better information about risks insured than the customer. This creates an imbalance of power in transactions which can sometimes cause abuse. The other part of the insurance contract (customer) is better informed about individual risks of his own. Therefore in general regulation it can ensure fairness both for insurers and insured. In the market economy insurers push up prices to achieve greater efficiency and form a stable, balanced pool of risks. However high prices limit affordability of insurance product for low-income households and constraints demand in actual uptake of insurance products. Regulation is needed to elaborate insurance products tailored to the poor who would otherwise are not able to take out insurance.

Market stability. Price stability is important for good image of insurance companies and trust of the population to the insurance market as a whole. Price fluctuations make consumers and political elite more active and they interfere into the process of regulation and disturb the balance between bureaucracy and insurers.

National insurance companies support. Every developed sovereign country regulates the provision of insurance in different ways. In highly-regulated jurisdictions, the scope of regulation extends beyond the prudential oversight of insurance companies and includes such matters as direct ban imposed and extra taxation for foreign insurers. In developed states protectionism would assume hidden forms.

Encouragement to sustainable economic development. Every developed sovereign state strives for sustainable economic development. Insurance regulation that governs the business of insurance is typically assures only the insurance companies solvency. They aim common interests stimulating economic development. These five objectives of insurance business regulation dictate the appropriate regulatory tools implementation (Table 1).

But the main reasoning for insurance regulation is the fundamental characteristic of the insurance market: the need for high financial stability, due to the durable nature of the insurance product. The fundamental purpose of insurance industry regulation is solvency provision. Methods and instruments of solvency supervision are the same in all national insurance markets. A solvency and capital requirements are imposed: to reduce the risk that an insurer would be unable to meet claims; to reduce the losses suffered by policyholders in the event that a firm is unable to meet all claims fully; to provide early warning to supervisors for them to intervene promptly if capital falls below the required level; to promote confidence in the financial stability of the insurance sector. Own capital minimum level depends on the class of insurance. In addition, expert knowledge of company management is required at the licensing stage of the insurance company.



Table 1

Insurance activities regulation tools

Objectives	Tools
Solvency provision	<ul style="list-style-type: none"> • Legislative requirements for minimum amount of owned capital • Profit distribution and prospective reserve funds • Company's management competence • Separation of life and non-life insurance • Statutory reserves and actuarial reserves regulation • Investment earnings guidelines • Assets and liabilities • Financial reporting requirements • Compulsory audit • Reinsurance regulation • Reinsurance capacity • Early warning systems • Solvency margin provision • Minimum size of tariff's rate
Affordability and fairness of the product	<ul style="list-style-type: none"> • Maximum size of tariff's rate, mandatory rate reduction • Information transparency and requirements to publish information • Insurance contracts regulation • Cost restriction • Ads' restriction • Government grants and subsidies • Compulsory insurance introduction • Legislative requirement for insurance service provision • Evaluation of operating expenses • Market conduct behavior governance
Market stability	<ul style="list-style-type: none"> • Collection, processing and publication of information about the insurance market development • Creation of professional insurers associations encouragement • The development of self-regulatory mechanisms • Creating a national guarantee fund
National insurance companies support	<ul style="list-style-type: none"> • Licensing of insurance companies • Foreign capital regulation • Fair competition policy • Regulation of distribution channels (including the activities of insurance intermediaries)
Sustainable economic development economic policy	<ul style="list-style-type: none"> • Taxation principles • Rules of insurance reserves investments • Forms of insurance companies organization • The participation of insurance companies in social protection provision

Usually life insurance and non-life insurance operations regulation is divided. Thus, at the stage of an insurance company creation supervisory authority establishes legislative



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requirements for: minimum size of owned capital; competence of company's management; owner reputation; life and non-life insurance regulation.

For solvency provision *and financial soundness of* insurance company special rules are established: statutory reserves and actuarial reserves regulation, investment earnings guidelines, assets and liabilities adequacy, financial reporting requirements, compulsory audit; risk assumption limits are used to regulate reinsurance capacity of the company; prospective reserves amount designated as a future liability for life and health insurance to meet the difference between future benefits and future premiums; loss reserves for known claims due but not paid, known claims but not yet due.

The ratio of assets and liabilities is used as the main solvency indicator of insurance companies, which includes the calculation of the solvency margin and insurance company's minimum equity. The solvency margin is a minimum excess on an insurer's assets over its liabilities set by regulators reflecting the principle of early warning system implementation.

Insurance tariff policy is of particular importance for solvency regulation and affordability and fairness of the insurance product [3]. The more competitive the market is, the more adequate the tariff. In some countries rates are approved or even set by the regulator, the competition might still be transferred to the proposal stage. That increases the desirability of the regulatory rate setting [4].

We can distinguish three types of insurance tariff regulation: the first type regards mandatory approval of insurance tariffs by the supervisory authority before using them; the second type proposes tariffs made by the insurers themselves accompanied by supervisory authority informing; the third type presupposes no limitation in tariffs.

Another way to limit the price setting figures out the maximum share of the costs and fees paid by insurers in premiums. Insurers may be induced to charge dumping prices that eventually would not cover the claimants. Such tools can help to control evaluation of operating expenses and aim to affordability and fairness of the product.

For consumers solvency protection is not enough for estimation of insurance company's reliability because the latter may charge dumping prices, they also can exaggerate prices by abusing these consumers' relative disadvantages. To reduce existing information asymmetry in favor of insurance industry and, therefore, to achieve social justice at the level of the insurance company regulators control the following issues: mandatory provision of financial information; protection of consumers from misleading information about insurance companies; insurance contract regulation.

Supervisory authorities often act as the "Consumer Protection Commission", accepting and settling customer complaints and claims to insurance companies and handling, thus, market conduct of insurers. To ensure *equal access* ("for the sake of fairness and equality") to insurance products for various social groups, regulator establishes the following control tasks: 1) direct subsidies to the poorest strata of the population as they are in need of insurance coverage; 2) introduction of compulsory insurance as a foundation for active constraints leading to lower prices so far as insurance coverage should be accessible to anyone; 3) in some cases a requirement of the contract extension or renewal of the insurance; 4) setting adequate premiums for urban and suburban areas.

Simultaneously today in accordance with the theory of the insurance activities governance formation a significant role in maintaining the reputation and stability of the



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insurance market is played by informal professional associations of insurers and self-regulatory mechanisms. For example in the emerging insurance market of Russia the self-regulatory organizations (SRO) could be applied in addition to some form of government regulation. The informal insurance regulation bodies are strongly connected to the formal authorities. They serve as a platform for information exchange and coordination of regulatory activity. The main cooperation between self-regulatory organizations (SRO) and State authorities relates to the insurers' financial conditions and bankruptcy prevention.

Market stability maintenance assists in early identification and business forecasting of market fluctuations. This is achieved by setting guidelines for commercial conduct and fair competition, by statistical analysis based upon the collected database of insurance market and its actors.

National insurance companies support and the restriction of foreign insurers is a specific distinction of developing insurance markets. The regulatory intervention in the insurance market could be expressed as active (restrictive practices of licensing, foreign participation in domestic insurance companies), or passive (access restriction to distribution channels).

Economic opportunities and positive consequences of insurance industry regulation for *economic development and innovative economic growth* achievement are almost unlimited. Among the most obvious are: taxation principles, insurance companies' investment regulation, social insurance. The tax incentives implementation is connected with a pension schemes development causing long-term savings and investment funds growth. Social solidarity resulted by insurance protection decreases state budget and separate insurance company's burden: the obligations to give (and the right to get) help in case of certain losses companies involved [5].

3. Regulation of Insurance Activities: The World Experience

3.1. Structure of Insurance Markets

The theory and practice of industrial organization link market structure and type of regulation. Structural and logical description of insurance markets is usually analyzed from the point of view of the structure-conduct-performance concept [6], where market **structure** – is the degree of concentration and ability to use market mechanisms by means of the entry barriers, institutional structure, limiting competition, market **behavior** figures out limited but fair competition and economic pressure impact on insurance market and **effectiveness** is characterized by long-term results of the insurance market dynamics and its key indicators.

According to the prior made analysis [7] we could distinguish three types of insurance market structure and behavior: free market: USA, Great Britain, Netherlands, etc, oligopolistic: Japan, emerging markets of CEE and Russia and monopolistic: China, India. **Effectiveness analysis** involves the study of market dynamics and its profitability. Key performance indicators of national insurance markets are: direct gross insurance premiums and gross claims payments, premium density (average insurance spending per capita), the importance of the insurance industry (insurance penetration) – measured by the percentage ratio of *premiums collected to GDP*. As to the characteristics of maturity of the insurance market we can use profitability, amount of own funds, amount of domestic insurance companies reserves.



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Table 2

The major insurance markets development, 2010 (bln US\$)

	Ranking by premium volume, 2010	Life premiums	Non-life premiums	Total premiums	Insurance density	Insurance penetration, 2010, %
Industrialized countries	-	2156	1533	3689	3527	8.6
USA	1	506	660	1166	3759	8.0
Japan	2	441	116	557	4390	10.1
UK	3	214	96	310	4497	12.4
France	4	192	88	280	4187	10.5
Germany	5	115	125	240	2904	7.2
Italy	7	122	52	174	2766	8.1
Hong Kong	24	23	3	26	3636	11.4
Emerging markets		364	286	650	110	3.0
Latin America and Caribbean		55	73	128	219	2.7
Brazil	15	33	31	64	328	3.1
Mexico	29	9	10	19	173	1.9
Central and Eastern Europe		20	68	88	272	2.6
Russia	19	1	41	42	297	2.3
South and East Asia		238	98	336	94	3.7
China	6	143	72	215	158	3.8
India	11	68	11	78	64	5.1
Middle East and Central Asia		8				
United Arab Emirates	46	1	5	6	1248	2.1
Africa		47	20	67	65	3.9
World		2520	1819	4339	627	6.9

Source: *swissre.com*

The most advanced countries in Central and Eastern European countries and emerging markets of Latin America, South and East Asia (GDP per capita – about \$ 5-8 thousand) insurance penetration (insurance premiums as a percentage of GDP) is about 3-5%; USA, EU and Japan, Hong Kong (per capita GDP – about \$ 30-40 thousand) it reaches 10-12%. Data show that emerging markets of CEE and Russia are far behind. In 2010, insurance sector penetration was 2.6% and 2.3% adequately, which is 3-5 times less than in developed countries.

The structure of the national insurance market – monopolistic, oligopolistic and competitive is adequate to the system of the state regulation.



3.2. Insurance regulation systems

In accordance with the structure of insurance markets we distinguish three main types of state regulation of insurance activities: *liberal*, regulation system that limits the market mechanisms and centralized state regulation (see Figure 3).

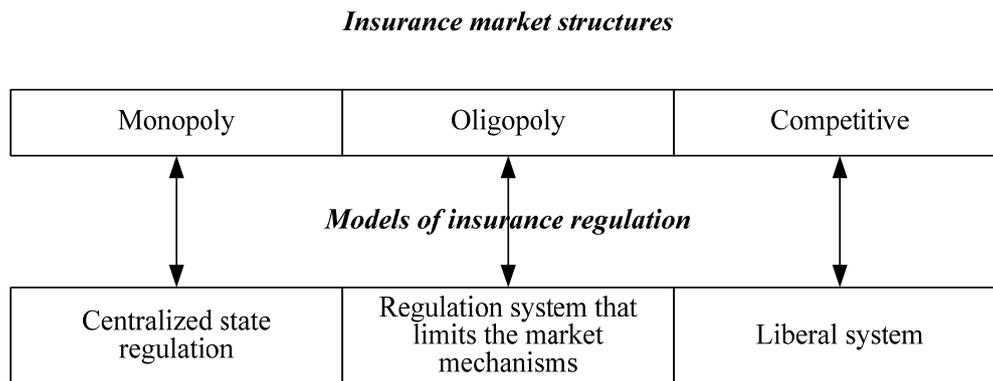


Figure 3. Interconnection of insurance markets structure and state regulation models

The first type of insurance market regulation – *liberal system* – a minimal governmental intervention and open free market competition. This model of regulation is limited to the control of the solvency of insurance companies. It can also be described as *ex-post* regulation: the government intervention has been carried out only after the deviation from the desired result has detected. Such a system of regulation of insurance activities exists in some European countries (UK, Ireland, the Netherlands), in most states in the U.S. and Chile.

Systems of the second type of insurance activities state regulation stipulate a significant *limitation of market mechanisms* and the partial or overall protection of private insurance companies from competition. Regulation of this type is known as *ex-ante*, that is, to prevent possible problems in advance by establishing rules of conduct on the market. Such regulatory systems has been implemented in Japan, South Korea, some of European countries (Germany, Sweden, Switzerland) and in developing countries.

The third type presupposes insurance markets, which are based on *state provision of insurance* and regulation for the benefit of economic and social purposes achievement. Public provision leaves almost no place for market mechanisms. The third type of regulatory system was observed in the former USSR and socialist countries of Central and Eastern Europe and still remains in China and India.

Insurance industry regulation has a considerable impact on the formation of national insurance market structure. The result of the first type regulation is usually the creation of a competitive market structure, second type develops market structure similar to oligopoly, the third type, usually forms a state monopoly on insurance activities.

Each regulatory system taken separately could be used in certain circumstances. There are advantages and disadvantages in each system.

The system of *state provision* guarantees the best control over the insurance market development, overcoming the distrust of the market and protecting the interests of



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policyholders. However, in the course of time in monopoly insurance markets obligatory insurance has been prevailing over voluntary insurance. It is considered to be an extra tax burden (the government compensation for losses). Market development is slow, the burden on the state budget is increasing, without providing the potential demand for insurance services, sluggish innovation and new insurance product development. This approach is leading to bureaucratic regulation and development of collective irresponsibility.

Liberal regulatory systems offer significant advantages: (1) ensure wider demand for insurance products and develop new ones to adapt the market needs; (2) the competition provides a more efficient asset management and lower rates; (3) self-regulatory mechanisms lead to a reduction of government spending. In the early 1960s in the UK (liberal regulatory regime) Supervision Authority staff was only 8 people, while in the State of New York (one of the most severe regulatory systems in the U.S.) Supervision Authority staff reached 200 workers in early XX century [8].

Rivalry on a domestic market favors the development of national insurance companies and strengthens comparative advantages in comparison with the foreign insurance companies. This makes them more competitive when entering the international arena. Liberal regulation regime was one of the factors that had given European insurers leading positions in insurance services export.

In general, we should note a gradual leveling in the systems of state regulation of insurance activities. The number of monopoly markets is gradually declining, competitive markets introduce harder and faster regulation, and partly restricted insurance markets are gradually becoming more open. Among the reasons for harmonization of insurance activities regulation we identify general economic trends, financial convergence development [9], and the processes of global integration and institutionalization of regulation.

Special (sometimes contradictory) mode of governance is demonstrated by Russia which lags behind in the process of bringing the regulation of insurance activities in compliance with international standards. One of the factors of such mode of development is obvious tendency to return to the first variant of strict state regulation [10] According to the level of liberalization the Russian insurance market founds itself on the stage of limited liberalization [11]. From the other side particular influence is observed due to Russia's accession into WTO in December 2011 and hence to GATS and Russia's ratification of WTO deal in May 2012. In these conditions the inevitable transition to a more flexible liberalization allowing to be a prominent participant of international economic relations could be predicted [12]. However, neither the public provision of insurance, nor liberal regulation are not able to contribute to the development of the Russian insurance market; therefore we recognize the intermediate mixed type (regulation of market mechanisms) as the best. This model is almost ideal from the standpoint of promoting the internal market development, protection of national insurance companies, improving the stability of the results and eliminates cycles. This method of regulation is most common to countries with emerging insurance markets.

Instead of Conclusion

1. According to the theory of the industrial organization governance the insurance market is regulated by state and non-state institutions supporting a balance between market and its



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structure from one side and state from the other side which keeps equilibrium between market and state failures. Insurance market activities governance is characterized by very special reasoning and logic (process, structure and mechanism) of its formation and development.

2. Due to the financial convergence process radical changes of developed and emerging markets governance concepts are going on. Governance separation period and prevailing of functional over universal approaches to different sectors of financial market regulation has finished.
3. Reasons of the state insurance regulation are: socially-significant nature, lack of costs transparency, uncertainty of product value, non-transparent pricing, significant adverse effects of insolvency and / or financial instability of insurance companies.
4. Structure and mechanism of insurance activities state regulation are determined by the definition of objectives and choice of tools of regulation.
5. The dominant structure of national insurance markets (competitive, monopolistic, oligopolistic) fixes the chosen model of state regulation of insurance industry: the liberal model, the regime of state security, the regime of limitations of market mechanisms.
6. Analysis of advantages and disadvantages of diverse regulatory systems results in the need to combine liberal and centralist control methods, the closest achievable in the model limitations of market mechanisms.

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COMPLIANCE RISK OVERSIGHT: ORGANIZATIONAL CHALLENGES FOR BANKING BOARDS IN LATVIA

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Introduction

The purpose of this paper is to examine the use of systemic approach and compliance management system as an organizational framework for the compliance risk management from a theoretical perspective and practical application.

Last year at the conference author presented review [1] of the compliance risk definition in Latvia where compliance regulatory framework had been introduced in 2007. Taking this somewhat further, this paper research some important organizational aspects of the compliance risk management and how the Latvian regulatory requirements use approaches espoused in the literature.

Research is limited by the fact that it considers one financial sector system (banking). Bank based system still dominates in most of continental Europe [2] and Latvia, where banks have 92.4% of total financial sector assets [3]. Banking sector in Latvia is presented only by commercial banks and two other types namely savings and co-operatives don't exist [4].

Traditional compliance organizational structures are crumbling under the weight of ever-increasing regulations that drives greater accountability and transparency. Leading Banks are on the forefront on building new and improved structures that support and enhance this new compliance environment, and best practices are emerging [5]; [6]. The complexity of banking business and compliance function urges compliance and other bank managers to use the concepts of “systemic thinking“, the bases of the new management culture of the twenty first century [7]. There appears exist a common approach that makes it possible to understand better and describe better the organized complexity – “systemic approach” that rests on the conception of “system”.

Banking as any other business process is a socio-technical system, executed by humans and machines. Research problem of this paper is compliance management system in order to organize and manage human part of the banking business process in area of compliance. Basel Committee survey [8] confirmed that regulators in some countries promote use of such system as a compliance organizational framework. Compliance management system in a context of organization consists of three interdependent elements: Board oversight, compliance program and compliance audit program.



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In general the expectations for compliance risk management in banks are consistent with the principles outlined in a paper issued in April 2005 by the Basel Committee on Banking Supervision (BCBS) [9]. The high-level principles have become widely recognized as global sound practices for compliance risk management and oversight, and the regulators [10]; [11] different countries including Latvia endorse these principles that mainly contain *what* and *why*. While the guiding principles of sound risk management are the same for compliance as for other types of risk, the management and oversight of compliance risk presents certain challenges as banks appear to be totally averse to risks related to compliance [12]. Unfortunately, there are no off-the-shelf formulas for compliance risk management. The complexities of each compliance issue and the unique circumstances of every bank make understanding compliance risk management challenging [13] and compliance risk management process and systems are ultimately only strong as the people controlling them [14].

The current global compliance risk regulatory framework can be summarized in one sentence: compliance function must be established to manage compliance risk. But how compliance function needs to be organized and structured? Survey organized by Basel Committee [8] confirmed that this is one of the major issues for small and medium size banks and therefore relevant to many banks in Latvia. The Basel Committee and literature do not offer definitive answers to this question since there is no “one size fits all” approach. Neither is it easy task to identify what constitutes a good compliance function’s organization.

It makes sense to assume that appropriately designed and implemented compliance management systems aimed at establishing compliance responsibilities, communicating those responsibilities to employees and stakeholders, ensuring that responsibilities for meeting legal requirements and internal policies are incorporated into business processes, should improve compliance. Currently empirical evidence reported in literature is far from supporting this claim, but this paper provide theoretical basis for compliance management system promoted by regulators.

To the best of the author’s knowledge, there are no papers empirically examine theories for construct of compliance management system in a context of compliance organization. It is of interest to regulator and Banking boards in Latvia to consider the use of such system for compliance risk organizational structure.

The presented research finds that the Latvian regulator sets up requirements for compliance function, but regarding its organization address only small fraction of the dimension that literature considers important. The Latvian banking regulator has made supervisory councils (no executive functions) as an integral and important part of its compliance regulatory framework. Council is similar construct to the Board that is widely used in literature. Regulator doesn’t provide oversight framework and tools for assessment of the supervisory council’s effectiveness. Concept of system is used mainly concerning internal control and program approach is not offered.

The paper is organized as follows. First the compliance function is reviewed, then role of compliance in corporate governance discussed. In section 3 theories of complexity, organizations and systems reviewed as a theoretical background and application of systemic approach described. Section 4 reviews the best practice. Section 5 concludes.



Discussion and Literature Review

1. Compliance Function

The compliance literature (Bryant, 2004 [15]; Haynes 2005 [16]; Apreda, 2006 [17]; Bauer, 2007 [18]; Mills, 2008 [19]; Birindelli 2008 [20]) and surveys (Basel Committee, 2008 [8]; European Commission, 2009 [21]) maintains compliance function as the function that should facilitate the implementation and maintenance of the compliance culture, arrange for or provide compliance framing, advise on regulatory matters, conduct monitoring, maintain lines of communication with the regulator, handle regulatory issues, conduct reviews, provide reports and guidance to management, assist in identifying, assessing and managing regulatory risk, manage internal, external and inter-relationships, and turn regulatory burden into competitive advantage (e.g. such as recommending IT solutions, regulation and guidance). In general terms, the inter-relationships for the Compliance function are: the Board of Directors has the responsibility for overseeing the management of the compliance function; Senior Management is responsible for establishing a compliance policy and a permanent and effective Compliance function. Some regulators [8] promote two levels of compliance function: 1) operational and 2) oversight that is independent from business.

In Latvia, the bank regulator is the Financial and Capital Market Commission (FCMC). Similar to other bank regulators, it must decide on compliance regulatory framework. The analysis of the FCMC requirements confirmed that such framework is defined in two laws [22]; [23], three regulations [24]; [25]; [26] and non-binding guidance (handbook) [27]. Author finds that FCMC requirements regarding the compliance function is similar to Basel Committee recommendations and reflect to the wording and spirit in compliance literature. A risk management framework in Latvia consists of at a minimum the following three internal control functions: Internal Audit, Risk Management, and Compliance. The roles of each of the respective functions along with the Board of Directors, Senior Management, Compliance Staff and Business Unit personnel, all have a part to play in contributing to the overall success of the three internal control functions as they form an effective risk management framework. Latvian regulator FCMC doesn't distinguish levels of compliance function.

2. Corporate Governance and Compliance Responsibilities of the Banking Boards

The compliance functions starts at the top. How banking boards can fulfill compliance oversight function and what kind of framework they can use for that? The general understanding of corporate governance is needed before to look for answers to this question. Corporate governance is a very general phrase and refers to the process and structure used to direct and manage the business. Cadbury Report [28] says: "the system by which companies are directed and controlled". Hardoiun [29] emphasizes that the governance of the financial sector goes through two channels. One is the general organization and regulation of the sector. Governance depends first from the framework defined by the regulator [30]. The other channel is corporate responsibility. After the recent financial crisis, Basel Committee on Banking Supervision (BCBS) and European Banking Authority (EBA) have called attention to the need to improve corporate governance of financial entities and issued new guidelines [31]; [32] endorsed by local regulators. Now regulators more than ever believe an efficient compliance function is a prerequisite for good corporate governance that should restore trust, integrity, and responsibility



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in the banks. They believe that compliance is key facet of governance because it shows how actually bank meets corporate responsibilities. Regulators especially advocate a governance structure composed of Board of directors and senior management that are responsible for overseeing the management of the bank's compliance risk and effective compliance function. The BCBS is aware that there are significant differences in legislative and regulatory frameworks across countries as regards the functions of the board of directors and senior management. The notions of the board of directors (some countries including Latvia supervisory board) are used not to identify legal constructs but rather to label two decision-making function within bank.

Several scholars (Handley-Schachler et.al [33], de Andres and Vallelado [34]) in their extensive banking corporate governance literature reviews found that there are many studies on corporate governance, but only few papers focus on bank's corporate governance (Ciancanelli and Reyes, Macey and O'Hara, Levine, Adams and Mehran, Caprio et al.). The literature emphasizes that regulation distinguishes the banking industry from other industries and presents several challenges in the field of corporate governance. Regulation can be considered an additional mechanism of corporate governance, but in most situations it reduces the effectiveness of other mechanisms in coping with corporate governance problems. The main aim of the regulator, which is to reduce systemic risk, might come into conflict the main goal of shareholders, which is profit. Corporate governance in banks plays a special role due to the uniqueness of the organizations. Studies above acknowledge the existence of difficulties, such as complexity and intense regulation, in the corporate governance of the banks. The reasons stated consider that bank board becomes a key mechanism to monitor managers' behaviour and to advise them. McIntyre [35] suggests that regulators can expect more from banking boards.

Recent corporate governance empirical literature beyond traditional topics such as: board size and composition, performance and compensation, has focused on effectiveness of the banking boards. Belkhir [36] using panel data set of nearly 170 banks found that there is no evidence in banking organizations that smaller boards are more effective, and induce an increase in performance. Andres [34] indicated that board members' specific knowledge of the complexity of the banking business enables them to monitor and advise managers efficiently. Careta [37] offers a model to assess the effectiveness and compliance of bank boards. He concluded that regulatory recommendations alone are not sufficient to guarantee board and director effectiveness and focused on two major drivers of board effectiveness. Board level drivers refer to size, composition, duality, committees, meetings, incentive schemes and management information reporting systems. Individual drivers refer to competencies and commitment of directors, who should develop and maintain appropriate level of expertise as the bank grows in size and complexity. Regarding compliance Corporate governance regulatory arrangements require from the boards two major things: 1) establishment of the compliance function and 2) oversight of the management of the bank's compliance risk. According risk regulations there should be a compliance framework and a common language to discuss risk issues.

The analysis of the FCMC requirements confirmed that Latvian regulator FCMC obliges the banking boards to perform compliance risk oversight by approving compliance risk management policy and at least once a year to assess the effectiveness of the compliance risk management. Regulator doesn't offer particular oversight framework or mechanism.



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Compliance officer should help Board to design oversight mechanism and therefore author aims to design board compliance empirical oversight model based on theory and best practises.

3. Applying Theories for Compliance Management System

There is a need to review some basic theories covering corporate (organizational) governance, before to offer compliance management system as an oversight model. Theories broaden appreciation of organization and the world in general and open mind to new ideas and possibilities for change and transformation.

3.1. Compliance and Complexity Theory

“The world is getting more complex” [7]; [38]. Globalization and technology developments are mentioned as main drivers for the high level of complexity. De Andres and Valledo [34] analyzed studies of Furfine, Levine, Morgan and concluded that complexity of the banking business increases the asymmetry of information and diminishes stakeholder’s capacity to monitor bank manager’s decisions. Complexity greatly aggravates the governance problem and requires a board not only to monitor managers efficiently, but also to give them access to independent and valuable advice to run the bank.

Compliance complexity arises from several factors. As human society becomes more complex, the complexity of regulation also increases. Compliance as an element of order follows the same development as regulation [39]. Compliance organizational complexity is related to the fact that regardless of the compliance functions origin and make-up, regulators are demanding that compliance is built into the business process. From the risk management this requires to organize in bank three lines of defence where compliance risk taking is business unit’s responsibility.

How better understand organizational complexity? Complexity theory has been used extensively in the field of strategic management and organizational studies. The theory treats organizations as collections of strategies and structures. Anderson [40] in his extensive literature review found that since the open-systems view of organizations began to diffuse in the 1960s, complexity has been a central construct in the vocabulary of organization scientists. Theory has treated organizations as an enormously complex (Daft and Lewin) and defined complexity as a structural variable that characterizes both organizations and their environments. With respect to organizations, Daft [41] equates complexity with number of activities or subsystems within organization, noting that it can be measured along three dimensions. Vertical complexity is the number of levels in organizational hierarchy, horizontal complexity is number of job titles or departments across organization, and spatial complexity is the number of geographical locations. Organization design tries to match the complexity of organization’s structure with the complexity of its environment and technology [42]. Anderson [40] noted that both social scientists and people in organizations reduce a complex description of an organization to simpler one by abstracting out what is unnecessary or minor. To build model is to encode a natural system into a formal system, compressing a longer description into a shorter one that is easier to grasp.

3.2. Applying Organization and System Theory in Business

Organizational theory and management philosophies have undergone a dramatic change since 1960s with the emergence of the systems approach to management. Ascher [43] notes that



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this theory was developed to account for very wide range of organizational behaviors and problems and is the systematic study and application of knowledge about how people – both as individuals and as groups – act within organizations. Willmot [44] analyzed development of the organization theory during the 25 years. He observes that theory is framed by meaning attributed to the particular concepts – such as “structure”, “role”, “process”. Modernist organization theorists focus on how to increase efficiency, effectiveness and other objective indicators of performance through the application of relating to structure and control. Organization theory addresses the problems regarding complexity and organizational reactions to the complexity. Organizations cope with complexity through various modes of structure and adaptation, including departmentalization, specialization, strategic planning, etc. Ascher [43] argues that organizations need to cope with complexity through coordination. Organization theory not only supports the technical aspects of operations, but explains their socio-cultural aspects as well.

In the early of sixties practitioners were able to translate the general systems theory of Boulding and Bertalanffy into meaningful business theory that could be applied to business-world problem solving. In 1967, Johnson, Kast and Rosenzweig [45] defined business organization as a man-made system which has a dynamic interplay with its environment – customers, competitors, labor organizations, suppliers, government and many other agencies. J. de Rosnay [46] in his famous book (1979) wrote that according to the most widely used definition, “a system is a set of interacting elements that form an integrated whole” and the fundamental concepts that recur most often in the biological, ecological, and economic models can easily be grouped into several major categories: energy and its use; flows, cycles, and stocks, communication networks; catalysts and transforming agents; the readjustment of equilibriums; stability, growth, and evolution. Each of these concepts applies to the industrial company [bank] as well as. Beyond the vocabulary, the analogies, and the metaphors there appears to exist a common approach that makes it possible to understand better and describe better the organized complexity. This approach is called the *systemic approach*, and this is the approach that presented as the concept of the macroscope. The systemic approach rests on the conception of system. It is not to be considered a “science”, a “theory”, or a “discipline”, but a new methodology that makes possible the collection and organization of accumulated knowledge in order to increase the efficiency of our actions. The concept of system appears in two complementary aspects: it enables the organization of knowledge and it renders action more efficient. The most complete definition: “a system is a set of elements in dynamic interaction, organized for a goal”. Several other scholars [47];[48] in their comprehensive reviews of the literature (A. Holl, R. Feigin, J. Kleer, R. Acoff, V. Sadovsky and others) on systems found similar system definitions and descriptions of the systemic approach. The exact definition of system depends on the users, environment, and ultimate goal. J. de Rosnay [46] defines complexity by using two important factors: the variety of elements and the interaction between elements.

Application of the system theory to business created a management technique that is able to cut across many organizational disciplines – finance, marketing and so on – while still carrying out the functions of management. This technique is called **systems management**, project management or matrix management. Practitioners of system management redefined the hierarchy of systems first proposed by Boulding [49]. The information extracted from Alvin Kayole by Kerzner [50] summarizes in his famous book: the upper level systems include the universe, solar



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system and earth. The second level is environmental level and includes those effects that may result from economic, social, political, legal, and technological conditions. The third level is the business firm system. The purpose of such system is to develop relationships and channels between organizational resources; to obtain information; to assist in the decision-making process; to be a link between the organization and the environment. A variety of business systems and subsystems can exist within organization: organization systems; information systems, financial information systems and etc. Systems are collections of interacting subsystems that either span or interconnect all schools of management. Military and government organizations were the first to attempt to define clear boundaries of systems, programs, and projects. Programs can be construed as the necessary first-level elements of a system and literature define it as the integrated, time-phased tasks necessary to accomplish a particular purpose. Programs can be regarded as subsystems. However, programs are generally defined as time-phased efforts, whereas systems exist on a continuous basis. Projects are also time-phased efforts, but much shorter than programs and are first level of breakdown of a program.

3.3. Application of the Systemic Approach

Certainly there has been a revolution in our way of thinking; what now are the practical uses to which we can put it? Beyond the simple description of the systems of nature it leads to new methods and rules of action. The construction of models and simulations are among the most widely used methods of the systemic approach [46]. Curtis et al. [51] lists five modeling goals: to facilitate human understanding and communication; to support process improvement; to support process management; to automate process guidance and to automate execution support. Warboys et. al [52] divided models up into five characterizations, which overlap: Static models; Dynamic models; Passive models; Active models; Enactable models. They wrote, "Models, either physical or graphical, provide a way of mapping and preserving a clear relationship between model and real world subject" and then listed four things that are necessary for model to exist: the part of the reality that is subject modeled; the model itself; the relationship between the model and the subject modeled; and an observer, user or creator of the model. A model is a planned abstraction of reality represented in a form that is usable by a human. Author aims to construct compliance oversight model and therefore it is valid to draw some conclusions from deRosnay [46]: "The more complex a system, the more complex its control system must be in order to provide a "response" to the multiple disturbances produced by the environment. This is the *law of requisite variety* proposed by Ross Ashby in 1956. This very general law asserts in mathematical form that the regulation of a system is efficient only when it depends on a system of controls *as complex as the system itself*. In other words, control actions must have a variety equal to the variety of the system. Not surprisingly regulators more and more stress a need for efficient internal control system and governance, where compliance plays a big role.

3.4. Practical Application of Systemic Approach and Compliance Management System in Banking

Regulators are demanding that compliance is built into the business process. Shaw et al. [53] define a business process as a socio-technical system, executed by humans and machines. Compliance management systems are widely used term by technology providers



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Several scholars [54]; [55] analyzed the automation of compliance with laws mandating risk management. Compliance technology products – known generally as “governance, risk, and compliance” (GRC) software grew tremendously. The main conclusions by Bamberger [55]: “While these technology systems offer powerful compliance tools, they also pose real perils. They permit computer programmers to interpret legal requirements; they skew decision making through an automation bias that privileges personal self-interest over sound judgment; and their lack of transparency thwarts oversight and accountability. These phenomena played a critical role in the recent financial crisis.” In authors view such systems are an expensive and not efficient for a small and medium size banks. Compliance is complex because involves behavioural business processes – fundamentally different than more transactional and structured processes within organizations [56]. The role of human system is more important in compliance risk management.

The use of systemic approach is not a new in Latvian banking. Solovjova [49] defined and constructed model “Komerbanku sistema”. Author performed analyses of Latvian compliance regulatory framework and found that term system is used mainly in context of internal control system. The term program is not used at all. Due to limitation of this paper the separate discussion is needed regarding above mentioned analyses.

4. Best Practice and Compliance Management System in US

Some banks may still be considering how they will structure the compliance function going forward and Caret et. al [37] in his board effectiveness model offers best practice as one of the tools. To truly be considered a “best practice”, a practice would need to have a great deal of history and consensus from many users. The United States (US) has the longest history for the compliance function of any country. The compliance in US started in 1930th and therefore could be looked as place for a “best practice”. The US banking regulators all defined compliance management system as framework for compliance function.

The Office of Comptroller of currency (OCC's) was established in 1863 and have primary mission to charter, regulate, and supervise all national banks and federal savings associations as well as supervise the federal branches and agencies of foreign banks. The Federal Deposit Insurance Corporation (FDIC) is an independent agency created 1933 by the Congress to maintain stability and public confidence in the nation's financial system.

OCC first in 1996 and FDIC in 2009 introduced requirements [57]; [58] regarding compliance management system and defined such system as the method by which the bank manages the entire compliance process. A compliance management system is how an institution: 1) learns about its compliance responsibilities; 2) ensures that employees understand these responsibilities; 3) ensures that requirements are incorporated into business processes; 3) reviews operations to ensure responsibilities are carried out and requirements are met; and, 4) takes corrective actions and updates materials as necessary.

An effective compliance management system is commonly comprised of three interdependent elements:

- 1) Board and management oversight;
- 3) Compliance program; and
- 3) Compliance audit.



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When all elements are strong and working together, an institution will be successful at managing its compliance responsibilities and risks now and in the future.

Conclusions

Compliance function must be established to manage compliance risk in banks. FCMC requirements regarding compliance function is similar to Basel Committee recommendations and reflects to the wording and spirit in compliance literature.

The Basel Committee and literature do not offer definitive answer to the question how the function should be organized and structured.

The literature confirms that banking business and compliance function as a part of it is very complex business and as any other business process is a socio-technical system, executed by humans and machines. Literature concludes that due to information asymmetry banking business is very complex. The role of Board of directors in the bank plays a more important role as in other organizations. Complexity greatly aggravates the governance problem and bank board becomes a key mechanism to monitor manager's behavior and advise them.

Effectiveness of the banking boards is one of the hot issue in current debate in cooperate governance literature and evaluation models are offered. The best practice is among the evaluation tools.

The compliance management system (CMS) is promoted by few regulators as a compliance framework to better perform their oversight of the compliance function. The two levels of compliance function is recommended: oversight and day-to-day.

The compliance literature confirms that CMS could mean different things for different people. Literature critically appraises the potential of technological compliance management systems, but the empirical evidence is not provided regarding compliance management system as part of socio system. Regulators define such system as system that has three interdependent elements: Board oversight, Compliance program and Independent audit.

Complexity, organization and system theories support those regulators that are promoting compliance management system as an organizational framework. Organization theory argues that organizations need to cope with complexity trough coordination. Complexity theory treated organizations as an enormously complex and define complexity as a structural variable that characterizes both organizations and their environments. The system theory offers systemic approach that makes possible to understand better and describe better the organized complexity. According system theory: a system is set of elements in dynamic interaction organized for a goal. Theory defines complexity by using two important factors: the variety of elements and the interaction between elements. A variety of systems and subsystems can exist within organization. Systems are collections of interacting subsystems. Programs can be constructed as the necessary first-level elements of a system and generally defined as time-phased efforts, whereas systems exist on a continuous basis. Projects are also time-phased efforts, but much shorter than programs and are first level of breakdown of program.

The construction of models and simulations are among the most widely used methods of systemic approach. A model is a planned abstraction of reality represented in a form that is usable by human. Models could exist either physical or graphical.



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In some ways, theory supports creation of a compliance management system as model that could be used to better deal with organized compliance risk complexity.

The US best practice confirms that compliance management system exists and could be used as a benchmark for designing model for particular bank.

The FCMC compliance framework provides mixed feeling regarding use of systemic approach and concept of systems. Concept is proposed for internal control system that is described as set of elements and could be presented as a graphical model. Systems or systemic approach is not used for compliance function. The regulatory framework offers only in one occasion term program for staff training.

Further research is needed to review how actually besides the FCMC regulatory framework banks in Latvia are using compliance management system.

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**PRACTICAL USE OF INNOVATIVE METHODS
OF INSTRUCTION FOR PERSONNEL TRAINING FROM
THE POINT OF VIEW OF HUMAN CAPITAL DEVELOPMENT
IN ORGANISATIONS**

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Abstract

Human Resource Management has recently encountered a number of new tendencies. Among them the most important is a transition of requirements from narrow expertise to the skillset that allows employees to be flexible and able to adapt to the new work environment and job requirements. Technological progress also requires mobility, foreign language skills and ability to continuously learn and acquire new skills.

The EU countries have experienced new conditions as a result of the economic crisis of 2007-2008. The new economic environment required employers at all levels to reconsider their attitudes towards personnel. Employers cannot afford to maintain an excelerated numbers of staff and are compelled to reduce numbers of employees. By the end of 2011, the rate of unemployment has reached 13% in Latvia and has essentially raised competition in the labour market.

As a result of the recent economic crisis, many employees have lost their jobs. At the same time, those who managed to stay employed, suffered through cancelled bonuses, salary reductions, prolonged working hours and an increase in the workload.

The new economic situation requires employees to be able to acquire new skills quickly, adapt to the changing situations and constantly confirm their competitiveness. This requires strong motivation from each employee, however maintaining high morale at workplace becomes difficult due to the lower compensation levels.

According to the author, it is crucial to consider opportunities of using all skillset and potential of the employees. Those who have kept workplaces after major layoffs are compelled to work under constant pressure. These employees became responsible for the jobs previously performed by their former colleagues. As a result, these employees require effective methods that would allow them working faster and more effectively.

Current article is devoted to the description of the personnel training methods that provide the maximal results within minimal timeframes. Many articles are dedicated to the subject of what employees need to learn, however effective learning techniques have not been widely



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spread until now. The author suggests conducting speed reading and speed memorising trainings before any professional personnel trainings. This approach allows achieving higher efficiencies from the professional trainings and work results within short time periods. For example, the speed reading techniques training conducted for three hours during a six day course allows increasing the speed and efficiency of information processing in 2-3 times.

During the period of 1999-2011 the author conducted a number of corporate trainings in the largest organisations of Latvia and abroad. All results of these trainings were consolidated into reports and questionnaires completed by all trainees, both before and after the testing.

It has been confirmed that during these trainings each trainee increased the speed and accuracy of information processing in 2-3 times without additional pressure. It looks as if a person starts thinking 2-3 times faster. Imagine, if you come to the office to realise you can think three times faster than your colleagues! You start noticing that people talk slowly. Did you become smarter? No, you have just acquired new skills and abilities. It should be noted that the efficiency and effectiveness of the training increases significantly when a team or a department are trained together.

The importance of this work increases as a result of continuous outflow of human capital from Latvia to the foreign countries. From the state economic efficiency point, it would be more beneficial to export highly skilled human capital, instead of cheap labour. At the moment, Latvia possesses great opportunities for establishing a system of personnel speed re-training techniques and its successful adaptation to the new economic conditions.

Introduction

In the recent decades in Europe and in the world, new tendencies such as globalization, migration, creation of the single European labour market, absence of boundaries, consequences of the global financial crisis, and ageing of Europe can be observed that caused significant changes in the sphere of adult education and personnel development in organizations. At the informal Summit of the leaders of the EU member states held at Hampton Court in October 2005¹, it was noted that demographic ageing is one of the main problems to be solved by the European Union in the nearest future. The negative demographic tendencies connected with population ageing and, as a consequence, with workforce ageing, in the near future will also unavoidably affect the quality of employees and will require more active processes of refresher training, competence development and mastery of additional skills and capabilities for professional development. Therefore, at the present stage, finding ways for improvement of educational activity of adults becomes more topical. Due to rapid professional, skill and competences obsolescence, new approaches and tendencies become topical and demanded in adult education that is aimed at professional development, i.e., the development of professional competences in the field of realisation of the concept of lifelong learning.

In the EU countries, at the level of state policy it has been recognized that knowledge increasingly becomes the basis for the development of society, and that there is need for transforming humanity into society that uses the concept of lifelong learning for the development.

¹ http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0621en01.pdf



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The most substantial changes occur in vocational training of adults specifically in the sphere of professional development and guarantee of competitive ability on the Pan-European labour market.

In accordance with the Pan-European 2020 Strategy², human capital, knowledge and innovations have been recognized as the basic resources that need development.

At the same time, it should be admitted that an adult cannot learn constantly. He/she must have enough time for the realisation of his/her own interests, for the family, reading of literature, sport activities, hobbies, etc. From this point of view, the use of innovative methods of instruction can become a tool that would allow them to free up time for these activities.

This article is dedicated to findings ways for adult and personnel training that would allow adults to preserve their flexibility, to react to the changes flexibly and would ensure a possibility to retrain and acquire new knowledge fast regardless of their age. Such instruction can be carried out both on the basis of formal and informal education, which will ensure practical implementation of the Bologna process [1].

Topicality

Implementation of the Bologna process [1] requires introducing into the unified system the factors, which have recently become crucial in the management theory, i.e. human capital, innovations, creative work and lifelong learning. On the basis of such approach, the author sets herself a task to unite these factors into a unified system to use it in personnel training.

Analyzing approaches in the sphere of adult education, it seems necessary to point out the fact that the analysis of the employees training programmes shows *what* exactly adults should be taught, but the attention is rarely paid to *how* they should be taught, what methods would contribute to making adult education more effective.

The methods of instruction described in this article are effective as such, but from the point of view of the author it would be interesting to examine the possibility of their use as a basic model for personnel training. It is meant here that, first of all, adults should be taught how to perceive new information, how to learn, and only afterwards to conduct any training necessary for professional development and maintenance of competitive ability.

Such approach becomes even more topical in the European Union and it is being used not only on the basis of informal but also on the basis of formal education, which proves that the need for finding and using more effective ways and means of working with information has been recognized. In many European higher education establishments searching for innovations in the process of instruction becomes a priority. Thus, for instance, in 2010, the University of Copenhagen³ together with the University of South Denmark developed a programme for more effective teaching of students. According to the statistics of the university, students do not often have necessary skills for mastery of information. For this purpose, training modules were developed for determining and improving the speed of reading and the quality of comprehension of the read material. The training materials are prepared for educational purposes in order to involve students and increase their interest and include graphic representations and examples of speech.

² http://ec.europa.eu/regional_policy/sources/docoffic/working/regions2020/index_en.htm

³ http://socialsciences.ku.dk/students/news_students/tutorials/



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The Cambridge University Students' Union⁴ (Great Britain) developed basic recommendations on how to increase the reading speed, pointed out the factors, which retard the reading speed as well as specified the conditions necessary for improvement of the reading speed. Following the example of the Cambridge University, the University of Manchester⁵ (Great Britain) placed training materials on speed-reading on its website in the section Study Skills with the aim to provide information on skills that would help obtain and comprehend information more effectively.

De Montfort University⁶ (Great Britain) offers to its students to master the speed reading skills in order to more effectively use their time during the study of materials for research activities and reading of educational literature.

Alongside Europe, a new wave of interest in these methods of instruction is observed in the USA and Canada. This way, the Regent University⁷ (USA) developed lessons on speed reading in order to increase the reading speed of students while fulfilling daily training exercises.

The employees of the University of Victoria⁸ (Canada) set themselves a task to facilitate the process of comprehension of the training material by students and developed a set of rules on more effective reading methods. These rules include improvement of concentration while reading, determination of motivations and purposes of reading, the analysis of the reading speed during several days, increase in the reading speed and the analysis of mastery of the material. These rules were developed for independent use by students during their extracurricular activities.

Such explosion of interest in the methods of speed reading in the world is caused by the fact that in the contemporary world when the total volume of information doubles every six months and the volume of information on the Internet, according to the data of the analytical company IDC, doubles every eighteen months, the old proven methods of working with information are not enough anymore. And if the question of improvement of the information processing methods becomes ever more topical for students, i.e., people who were successfully admitted to universities having initially being focused on earning money in future by intellectual labour, then this question becomes even more topical in the sphere of personnel training, especially if adults had obtained their diplomas more than twenty years ago.

In the EU countries, even more attention is paid to these methods of adult instruction. Thus, for instance, the British Broadcasting Corporation⁹ (BBC) developed programmes for adults on skimming and scanning of texts and placed videos on its website. Having read the training texts and having viewed the videos, anyone who is interested can pass an online test to evaluate his/her own progress and determine skills necessary for further improvement of the reading speed and mastery of the read material.

Many EU member states develop at the national level the programmes on improvement of reading skills and ability to analyze information. For instance, in the spring of 2011 the daily

⁴ <http://www.cusu.cam.ac.uk/academic/exams/speedreading.html>

⁵ http://www.humanities.manchester.ac.uk/studyskills/essentials/reading/speed_reading.html

⁶ http://search.dmu.ac.uk/search?q=speed+reading&btnG=Search+DMU&entqr=0&ud=1&sort=date%3AD%3AL%3Ad1&output=xml_no_dtd&oe=UTF-8&ie=UTF-8&client=dmuweb&proxystylesheet=dmuweb&site=dmuweb_collection&filter=0

⁷ http://www.regent.edu/admin/stusrv/student_dev/online_workshops/speedreading/

⁸ <http://www.coun.uvic.ca/learning/reading-skills/speed.html>

⁹ <http://www.bbc.co.uk/skillswise/topic/skimming-and-scanning>



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London newspaper Evening Standard launched a massive current affairs programme in order to determine the general level of reading in Great Britain and to acquaint people with this growing problem, to obtain the support of population for the sake of improvement of reading skills in Great Britain. The initiative of the newspaper under the title Get London Reading had wide resonance and the dispute it had caused is still going on in various strata of society.

According to the data published in the newspaper Evening Standard on 25 January 2011, illiteracy costs the economy of Great Britain approximately 81 trillion pounds a year. Whereas, the report published by the World Literacy Foundation¹⁰ on 25 January 2011 states that people who do not read fast enough earn less, do not make substantial contribution to the growth of the British economy as well use government grants. The study carried out by the Foundation showed that an adult who reads slowly will earn at least 30% less than those who can read fast. According to the experts' opinion, the children of illiterate parents will most probably grow up unable to read, too.

The initiative of the newspaper Evening Standard attempts to combine volunteers in order to become instructors for schoolchildren experiencing difficulties with reading. As of January 2012, having been inspired by that campaign, 313 volunteers started working at schools. According to Andrew Kay, Director of Foundation, "This is the key to boosting employment and income of people".

The complete report of the World Literacy Foundation will be published at the World Literacy Summit that will be held in Oxford in April 2012. This is the first conference dedicated to solving the problem with reading and its interrelation with poverty.

All the above-mentioned factors testify the growth of interest in Europe and in the world in the speed reading methods and the urgency of development of new methods in this direction.

Description of the Issue

According to the data provided by EMC in the study *The Expanding Digital Universe: A Forecast of the Worldwide Information Growth through 2010*¹¹, the volume of worldwide information in the following ten years will show a 50 times increase. The analytical company IDC provides data that the volume of information stored on the Internet doubles approximately every 18 months¹². At such rate of global information expansion it becomes increasingly difficult to know what is what in the information traffic and separate important ideas from the secondary and unnecessary ones.

The increasing volume of global information makes personnel of organisations master new skills and capabilities, having which, until recently, was taken as a matter-of-course. The skills meant here are the speed reading skills, the ability to analyse information and memorise it fast, which make it possible for personnel to be more effective at their workplace.

The increasing competition in the labour market as well as the problem of demographic ageing in Europe and problems related to job placement and opportunities for youth career

¹⁰ <http://www.thisislondon.co.uk/standard/get-london-reading/article-24030751-cost-of-illiteracy-to-uk-tops-pound-81bn-each-year.do>

¹¹ <http://www.emc.com/collateral/analyst-reports/expanding-digital-idc-white-paper.pdf>

¹² Article Big Data Becoming Big Business (5 April, 2012) – <http://optimalsapblog.com/>



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development and, as a result problems with the income level of youth, makes employees more flexible. On the one hand, the problem of fast retraining is topical for persons of ripe age, since constant extension of the pension age in Europe forces people to master new trends and expand the range of their knowledge irrespective of the already existing experience and requires increasing the competitive ability at any age; on the other hand, the problem of quick mastery of new knowledge and possibility of fast training and retraining is important for youth, since the number of workplaces keeps decreasing and there are less opportunities for career development because workplaces are not freed due to extension of the retirement age. It requires a faster response to the changes in the environment. The work becomes ever more result-oriented rather than process-oriented. Similar changes also concern the employees of the government sector.

If the majority of heads of organisations both in the business and government sector have a clear understanding of *what* the personnel should be taught, the issue of *how* to teach them becomes ever more topical today.

Any training of personnel requires time and specific efforts on the part of trainees. An adult cannot constantly work in parallel with learning. Any learning requires time. And the question where to find this time becomes ever more crucial.

Another problem that appears in relation to personnel training is the percentage of the material proposed that an adult is able to memorise, comprehend and use. This question becomes particularly important in case if training is conducted after work. Constant pressing, shortage of time and the need of continuous professional development may lead to the effect of “professional burnout” [2].

These problems forced the author to start finding possible solutions in this direction. Today, the methods described in this article allow personnel to be not only more effective, but also to essentially save time necessary for professional development. Thus, for instance, one of the clauses of the contract of a marketing director of a large network of supermarkets was the requirement to read during the first year of employment 52 books on business according to a specified list of literature. It means that he/she had to read one book per week, which implied that he/she had not just to read it, but also analyse it, correlate the data, and arrive at conclusions. Taking into account that at this position the rate of intensity of work must be very high, and an adult is obligated to read all these books during his/her non-working hours, the question should be asked as to where such employee can find time for the family or rest. It is clear that there are grounds for such requirements to the contract and that to be competitive the employee will have to read this literature. At the same time, it is easy to imagine how long it will take a manager to perform this work, if he/she does not have the skills of accelerated perception of information. And such examples are far from rare.

To solve such problems, the author proposes to more actively use the innovative methods of personnel instruction, which would allow reducing substantially the time necessary for mastery of new knowledge and skills. In the opinion of the author, it is important now than ever to examine the possibilities of maximum use of the employees’ potential.

Novelty

Teaching of speed reading, fast memorization and skills of fast processing and structuring of text information using logico-graphic symbols [3] was first used in order to train personnel in organisations. Given methods were used not only as having the effect as such, but also as the methods, which would make it possible in future to use the human capital of an organisation



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more effectively under the conditions of abrupt changes in the environment caused by the crisis, the situation in Europe, introduction of a new organisational strategy, reduction in the number of workplaces. The methods described in this article allow preparing personnel for the abrupt changes connected with the activities of the organisation.

Despite the fact that the speed reading and fast memorization methods with the use of associative thinking have been known from long ago, for the first time they were purposefully tested for training of personnel in organisations on the request of the heads of the organisation, heads of a division or subdivision.

For trainings, the curricula based on practical instruction were developed (minimum of theory, maximum of practice). In the course of the training carried out, the rate of information exceeding the speed by three times a second (or 208 beats per minute on the metronome) was used for the first time. Such rate of information in the course of training developed in people the skill of accelerated perception of information, raised attention (since there simply was no time for distraction) and respectively, improved perception.

For the first time, a speed reading programme showing real and measurable results after six days of daily 3-hour trainings with the rate of information 208 beats per minute on metronome was developed and put in practice. The basic effect of speed reading lies in the fact that the programme allows adults to learn thinking two or three times faster. It does not mean, though, that an adult will immediately become cleverer; at this rate of processing of information a person may reveal specific capabilities.

The methods of fast memorization of information were first used for corporate training with the aim to increase the volume and speed not only of memorization, but also of subsequent retention of the learned information that must be used for fulfilment of the work responsibilities [11]. Programmes were specially compiled under the corporate order taking into account the requirements of a specific organisation.

It was the first time that these methods were used so widely, since the methods described in the article were tested in ten EU projects, PHARE and Socrates programmes; training was also conducted for the implementation of the national programme of the Republic of Latvia *Support of Vocational Education*, which was developed and put in practice within the framework of the international project *Vocational Education 2005-2006*. All in all, 2562 people in 119 groups in 21 regions of the Republic of Latvia underwent training within the framework of only this training programme [4]. All materials of the project were recorded and submitted to state bodies and the EU bodies within the framework of lifelong learning.

Altogether, in the time period from 1999 until 2012 inclusive a total of 4587 people underwent training under the programmes described in this article. The research of the possibility of applying the innovative methods of instruction were conducted on the basis of the licensed Training Centre Lando® (license of the Ministry of Education and Science No. 3360800220) established specifically for the implementation of such training.

Materials and Methods

Personnel instruction using the speed reading and fast memorization methods as well as the methodology of text information processing was conducted in the form of trainings, since the basic wish of the clients of training (owners of companies, heads of organisations) was



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conducting of training activities in the shortest possible time. Moreover, the clients of training assigned the facilitators to ensure that after completion of training personnel would be able to work as fast and more effective as possible.

Therefore, in the course of training all information was given at the rate 208 beats per minute. This rate was selected on the grounds of studies conducted by Lozanov and Novakov [5]. In 1977, according to the results of studies conducted by Lozanov and Novakov, the most convenient rate for perception of information by a person was established at the rate 60-64 beats per minute on the metronome. In the opinion of the author, this rate of information can be increased 2 and 3 times (proportionally). The greatest effect is observed upon transfer of the rate of information to 180-184 beats per minute, which exceeds the tempo of classical music three times, which was investigated by Ericsson and Cooper who found that people memorize and learn best of all after they have listened to the sound of the metronome at the rate of sixty beats per minute. During personnel training, the rate of the metronome was 208 beats per minute, but this speed was used not only for listening; information was given at this rate [6].

One 3-hour training day is sufficient to achieve the effect of perception of information at this rate by an adult. The trainees' purpose on the first day of training was getting accustomed to working at this speed.

During the second training day, the rate of information remained as high, but the purpose was to determine the leading strategies for perception of information while reading at this rate and specify the most convenient motion of the eyes at the rate of reading 208 beats per minute on the metronome.

On the third day of training, the basic theme of instruction was the work with semantic structures and the ability to emphasize the main idea. Working with semantic blocks occurs at the same speed.

On the fourth day of training, the basic emphasis is made on the rate of switching from one process to another with the aim to retain understanding during such work.

On the fifth day, the trainees learn to conduct three processes in parallel. It is achieved by placing three books (which they need for their work) in front of them and each trainee reads one line switching attention from one book to another three times per second. This exercise is done not less than twenty minutes in a row after which the degree of comprehension of the material is checked in the course of retelling each book separately.

On the grounds of the results of the fifth day, the speed of reading of an unknown text and the speed of reading of three different books is fixed.

On the sixth day, all skills acquired in the course of training are reinforced. The results are fixed during reading of twelve unknown texts of different degree of complexity, style, length, and content. The average speed of reading is derived according to the results of the reading of texts. Afterwards, the results of speed of reading of three books that are different in style are fixed. Then, the initial results are compared with the results achieved.

When teaching the methods of fast memorization, the method of associative thinking is proposed to be used for memorization and subsequent retention of the learned information; in the course of exercises the trainees learn to use associative thinking for the memorization of information that is not interrelated, memorization and subsequent reproduction of names, surnames, foreign words with translation, digital information, texts, etc [10]. To increase the



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effectiveness of instruction, examples for memorization are taken from practice in accordance with the request of trainees or upon the demand of the clients of training (usually heads of organisations). The personnel can immediately use the skills acquired in the course of training in practice.

In their turn, logico-graphic symbols [3], are used for work with text information if there is a necessity to memorize it precisely and reproduce later [7]. The purpose of such training is to provide the personnel with a tool, which would allow them to more rapidly and effectively work with any information [8], process it, draw logical conclusions, set up alternatives, memorize complicated texts, structure information, generalize basic concepts and categories and logical thinking, including synthesis, analysis, and data classification.

Depending on the purpose set by the clients of training, the modules of training programmes can be changed and the materials specified by the client may be used for instruction.

Judging from practice, the optimum form of teaching speed reading is practical training for a period of six to seven days during three or four hours a day (it depends on the region of instruction, national and cultural peculiarities). Fast memorization can be taught in two to four days during six hours a day (the quantity of days depends on the quantity of modules selected by the client). As to work with logico-graphic symbols, the most effective time for training is five days during three to four hours a day. These data have been acquired in the course of the many-year experience of conducting practical training.

Results

Altogether, in the time period from 1999 until 2012 inclusive, a total of 4587 people underwent training under the programmes described in this article. Trainings were conducted in open groups and in the corporate form. The methods of speed reading and fast memorization of information proposed by the author were used on the basis of informal education for training of top managers and C-level executives, owners of business in Latvia, Lithuania, Estonia, Russia, Kazakhstan. Trainings in the corporate form were carried out for personnel instruction in 56 organisations in five countries.

In the process of planning of personnel training in the corporate form, the clients of training were interviewed in order to determine the directions in which the results obtained in the course of training will be used. During interviews, the purpose of trainings, the reasons why they were conducted as well as the desired results were specified.

Upon completion of trainings, the participants were asked to fill out questionnaires and protocols were collected confirming the results of training per each day of training as well as the owners or directors of organisations who were direct clients of training were interviewed. Repeated interviews with the clients of training were carried out immediately at the end of training and two weeks after the training in order to assess the results gained and understand the degree of the client's satisfaction. On the grounds of the analysis of the obtained data it is possible to arrive at conclusions listed below.

The clients of training send their subordinates to learn the programmes described in this article in the following cases: staff reduction in the organisation when those who were lucky to preserve their workplace must take upon themselves the fulfilment of the part of the work of



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colleagues who were made redundant; expansion of the organisation into new markets; recruitment of new employees who will have to master large volumes of new information related to the fulfilment of working responsibilities; working under time pressure conditions; instruction can also be used as a reward; some organisations train only promising employees or top managers creating this way the Big League of the organisation, i.e. people who possess such techniques and skills which the rest of employees do not possess; preparation for the introduction of a new strategy.

The trainer should take into consideration peculiarities of the motivation of employees undergoing corporate training. If the owner of the organisation pays for his/her instruction him/herself, the hired employees most frequently learn at the expense of the employing organisation. During learning, the employees have a somewhat different motivation. It is important for them to spend time well, raise their self-esteem and make use of the personal development opportunity. The difficulty of the trainer's work consists in meeting the expectations of the hired employees, who learn, and the expectations of the clients of training, who pay for this process. In the course of the conducted training, the results are recorded at every lesson.

Fast Memorization. When teaching techniques for fast memorization, it is necessary to record the results gained on a regular basis. Testing is carried out before lessons. Adults are given a task to memorize 10 unrelated words. The analysis of initial tests of 967 employees from different organisations who underwent training under this programme showed that the spread of data is rather wide, i.e. from 4 to 10, $Mo=7$, $Me=6$. These data correspond to the results acquired by Miller, G. A. [8] in his research conducted in 1956 in which he established that short-term memory is capable of holding only 7 (+2) pieces of information simultaneously. This is what causes main difficulties with memorization in adults.

Initial testing prevents adults from assessing their capabilities subjectively, since the majority of them subjectively describe their memory capacity as "good" or "bad", but cannot express it in quantitative indicators. Initial testing also allows building a complete picture of how a person memorizes information using methods to which he/she is accustomed to.

Then, adults are given explanations regarding how the methods of memorization work after which adults start applying them. A repeated testing is carried out in one hour and a half after the beginning of the lesson. This time, the same control group is to memorize 20 unrelated words. In terms of repeated testing, the spread of data is narrower than in the initial test, i.e. from 15 to 20, $Mo=16$, $Me=16$. In both cases, simple words denoting objects are used in tests. This is the way how adults are taught to memorize simple information.

In the following test, adults are to memorize 10 words denoting abstract notions (something that cannot be depicted). The data spread from 6 to 10, $Mo=8$, $Me=8$. In one hour, after the theory has been explained and the new method has been mastered, one more testing is carried out. 10 out of 10 newly given abstract words are memorized by 84% of trainees.

Lessons are built in such a way that on the first and on the second day the trainees work with four different topics. During the first day of learning, adults learn to memorize 50 people by names and surnames just during one hour of the lesson which is achieved with the help of photographs and business cards. During the second day of learning, adults, depending on their individual peculiarities, memorize 50-150 unknown words in a foreign language with the



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translation thereof, memorize complicated terminology and carry out other tasks related to the fulfilment of their job responsibilities.

Use of fast memorization methods in adult training requires great flexibility of the trainer. The author believes that in order to increase the interest of trainees in the process of learning within the corporate training, it would be effective to use examples related to fulfilment of specific tasks at the workplace of the group of trainees. For instance, to memorize terminology necessary for their work, names and surnames of employees of other departments and subdivisions, i.e. something that can be practically used upon completion of training. Such approach increases the interest of trainees in the process of training and builds additional motivation.

Speed Reading. In the course of teaching speed reading, the initial speed of an adult usually varies within the limits of 180-250 words per minute. The results are very much different region-wise if the final quantitative result is taken.

During initial testing, after the trainees have read a text, they are offered to provide written answers to six questions and identify the main idea of the text. According to the results of initial testing it was established that the reading comprehension rate did not exceed 50%. Nonetheless, all trainees were sure that they fully comprehended the text. However, 83% of them gave answers only to 4 out of 6 questions and their answers were not complete. At initial testing, the task is to read a text at the speed at which one can comprehend it well. In the course of practical training, the speed of reading grows by two or three times given that the information is comprehended completely (6 out of 6 questions are answered). At that, the faster the initial speed was, the more a person can speed up while doing the exercises. Initial testing is performed on the texts of medium degree of complexity. The rate of comprehension of the material is then checked by written answers to questions about the text. Final testing is conducted on 12 texts of different speed according to the results of which the average speed is calculated, and on three different books which differ in topic, style, and content. In terms of books, the average speed is not calculated, since they differ in the degree of complexity, but a final result showing that a person can read an easy book 30% faster than a complicated book is checked. The results are shown in graphs. The author can provide the results of tests of each student who had undergone training.

From the author's point of view, a good speed of reading for an adult is 500-1000 wpm with full and complete comprehension of information. The topicality of this research increases due to the fact that for the new generation of adults reading is not leisure but hard work. It should be pointed out that the initial reading rate in adults who read little may be just 120-180 wpm, which equals to the reading rate of a Grade 4 student. It implies that an adult who can think minimum four times faster than a child is not able to perceive information in the text fast. It significantly restricts the development of adults, since they can acquire new information related to fulfilment of work responsibilities only through reading.

Discussion

The greatest distrust to the methods described above is caused by the fact that a number of authors pointed out in their articles that during fast reading some part of the information may be missed. From the point of view of the author of this article, this assumption is totally wrong.



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The whole information must be read letting the brain grasp the entire picture. At the same time, working at high speed in the course of exercises helps decrease the effect of silent speech or subvocalization (when during reading the words as if sound in the ears of the reader). This way, seeing the whole text, at fast perception a person sounds out not all the words like in regular reading but just the basic ones; whereas, he/she does not miss the rest of the words, he/she simply recognizes them without sounding them out. Another habit of perception is formed this way, the basic purpose of which is to perceive text information by blocks rather than separate words, as we do, for example, when speaking a foreign language.

Since learning occurs in the form of practical training, an important question for consideration becomes the training of teachers according to this system. Only a teacher having practical skills who can demonstrate them to the learners is able to conduct practical lessons using the methods described in the article. Instruction in the form of lectures in this case is not effective. A wide use of methods of fast memorization and speed reading will soon require the training of new trainers capable of practical instruction according to these programs.

Since at present, time is one of the most expensive resources in the life of personnel, the training programmes described in this article were aimed at giving a real, measurable and practically applicable outcome within a maximum short term. This way, it is possible to master the fast memorization technique in sixteen academic hours. However, twenty four academic hours are necessary to master the speed reading technique given that classes are taken during six days. It is connected with the fact that training is a stressful process and requires of the trainees the maximum feedback during the fulfilment of exercises. Only in this case a maximum possible result can be achieved. The activity of the brain during training can be compared to the training of muscles when a second breath is necessary. The same effect is observed when working under the pressure of time.

The fact that in the course of training programmes described above an adult begins to think two or three times faster does not mean that he/she becomes cleverer. Nevertheless, he/she reveals completely different capabilities in comparison with others. The author understands that measuring of the speed of thinking can be problematic, but measuring of the reading speed and assessment of the degree of comprehension in this case can be quite precise.

The growing interest in such methods in Europe and in the world testifies the need for wider use of these methods in personnel training.

If ten years ago such instruction was conducted on the basis of informal education, the fact that a number of leading universities in Europe and in the world began introducing the given methods on the basis of formal education proves not only the effectiveness but also great demand for these methods. Therefore, from the point of view of the author, it would be expedient to discuss possible ways of more extended putting of these methods in practice, to organize scientific studies on the basis of formal and informal education and use the developments obtained in personnel training.

Conclusions and Recommendations

Training programmes on speed reading, fast memorization and processing of text information with the aid of logico-graphic symbols can be successfully used for personnel training in organisations both in the private sector and in public administration.



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These training programmes satisfy the needs of the management allowing the employees to achieve the goals set by the management. Simultaneously, these programs also satisfy the needs of the trainees in terms of raising their self-esteem, general development as well as contribute to more rapid and more effective fulfilment of their work responsibilities.

This type of instruction can be used in all spheres, since it does not require preliminary knowledge and skills except for the skills acquired at secondary school. Unfortunately, these skills fade year after year. The programmes developed by the author can also be introduced at an earlier age – at schools and higher education establishments. If we regard the growing generation as the future of the country whose task is to ensure and contribute to the growth of GDP, pension benefits and social allowances, then it should have skills in working under time pressure and freely use the techniques of fast memorization and speed reading.

Every three years, the Organisation for Economic Co-operation and Development (OECD) carries out an international study *The Programme for International Student Assessment (PISA)*¹³ focused on comparison of education attainment across the world. The level of cognitive development of children, who are the pledge of economic prosperity of any country, in Latvia also leaves much to be desired. In terms of the ability of students to analyse information and use the skills acquired at school in practice, Latvia ranks only 30th among 65 countries of the world; whereas, Estonia is ranked 13th and Lithuania – 40th.

In the author's opinion, it is not difficult to image the level of income to be gained by the adults into whom the children not able to analyse information and draw logical conclusions will grow up. It might happen that these children will grow up into people who will represent just cheap labour force.

The methods described in this article produce effect right after completion of training. Training programmes with the use of innovative methods of instruction can be used both as a whole and as separate blocks. The methods described in this article bring a real measurable result, which is noticeable already after the first lesson.

Usage of such methods also serves for the purpose of personal development of people who have undergone training. In the majority of questionnaires filled out after the training, in which adults evaluated the training they underwent and gave their free-form comments, they noted such aspects as improvement of the effectiveness at their workplace, increase in the rate of information processing, and raised self-esteem.

The basic effect due to which personnel is given a task to undergo such training programmes is the increase in the speed of thinking and processing of information. A person cannot read faster than he/she thinks. If a person is a slow thinker, he/she is not likely to be a fast reader. To increase the speed of thinking, it is advisable to work with texts. The speed of thinking, however, is rather difficult to measure just like, for instance, to measure motivation. But on the grounds of the practical experience of conducting lessons, the author can claim that if an adult learns to read fast, he/she will also be able to think fast. It refers to reading given that the information is comprehended fully and completely.

Apart from protocols and the results gained, the effectiveness of conducted instruction and training programmes can be proved by repeated corporate orders for trainings as well as the fact that 43% of people who underwent training in the corporate form were further attending

¹³ http://www.pisa.oecd.org/pages/0,2987,en_32252351_32235731_1_1_1_1_1,00.html



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classes in other modules of training programmes in open groups at their own expense or brought their children for training according to the analogous programmes.

On the grounds of the aspects mentioned above, the author recommends as follows: to expand the range of application of innovative methods of instruction using the techniques of speed reading and fast memorization; to summarize the results gained and make them available to general public for discussion; to describe the most demanded skills and capabilities adults should possess for the purpose of effective training within the concept of *lifelong learning* and successful integration into the European labour market.

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ESTIMATING POTENTIAL IN EXPORT OF FINANCIAL SERVICES

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Abstract

The purpose of the current research is developing tools which help to estimate country's financial industry potential in export of financial services. For achieving this purpose expert and econometric methods were used. Statistical dates for potential estimation were taken from such public sources as UNCTAD Services Trade Database, World Databank and World Competitiveness Report. In the result of this research one has created gravity model of financial services export. Financial industry of Latvia was taken as an example for estimating potential in export of financial services.

Introduction

During the whole period of the development of world trade in financial services a trend in growth of its volumes was preserved. Actually all countries of the world are engaged in financial service trade, to a greater or lesser extent [1], and some of them specialized in it as a main kind of foreign economic activity and achieved impressive results in it. Despite the fact that foreign trade in financial services can acquire a specific negative role under conditions of global crisis, export of financial services as a component part of international trade, in author's opinion, is less exposed to the risk of detriment to financial stability of country.

During the last 30 years export of financial services increased approximately 100 times [2]. For all this, its rate of growth outstrips the increment of world export of both all services and world export of goods. At the same time geographical distribution of financial services exporters undergoes considerable changes nowadays [3]. Progress in means of communication, information technologies, computerization of processes and new ways of delivery [4], in conjunction with removal of national restrictions on transnational capital flows provide a possibility even for countries with a rather small population and territory with scarce natural resources to achieve a high living standard only by providing financial services to the world market.

Country's intentions to stimulate export and re-export of financial services must be substantiated by the availability of sufficient potential for that. It's just on its basis that one ought to form complete country's strategy of the development of financial services export. But the problem lies in the fact that it is difficult to define this potential. One needs a special set of



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instruments that indicates in what direction, in what volume and even what kind of financial services one ought to export. However, neither the widely used analysis of Porter's five forces, STEP-analysis, SWOT-analysis and their varieties [5], nor risk analysis and the other ones [6, 7] are able to settle the fundamental problem regarding the way of combining heterogeneous parameters in a general assessment of possibilities. "Export capability" is difficult to yield to definition. As a rule, in analytical articles one quotes one or another market potential but without any substantiation of the cited "concrete" figures. Most authors are proficient in avoiding concrete examples and calculations. Some of the few researchers who, in any case, are engaged in this passing matter linked it with market capacity. Market capacity gives the possibility of showing what volume of financial services calculated in currency can be realized at a certain price level, demand, etc. The methods of evaluation differ depending on definition of the market level: the whole market, real or potential, admissible, target, main, territorial one, and so on. When one speaks about market capacity, at the same time one also includes in this concept 'sales volume', 'sales potential', 'market capacity', 'market potential' proper, as well as 'economic potential' [8]. Some of the authors speak about possibilities of realization under invariable circumstances, while the others mention time changes, and the third ones ponder over some factors essential for realization of goods/ services and the necessity of coefficients taking into account the importance of one or another factor [9, 10].

In view of the fact that at the present moment none of the officially accessible researches provide the calculation of capability of country's financial industry in export of financial services in monetary value, consecutive targets of the current research proved to be:

- working out conception of capability's notion in export of financial services;
- creating a set of instruments for measuring capability of country's financial sphere in export of financial services;
- calculating potential for financial industry of a certain country (financial industry of Latvia was taken as an example in view of the intention of this country to develop export of financial services) [11]).

For realization of the given tasks one mostly used methods of econometric analysis. Statistical information used for construction of set of instruments of potential's evaluation was limited by database of international organizations – The World Bank, UNCTAD.

Concept of Capability in Export of Financial Services

Capability is something possible but not yet actual. In authors opinion, from economical point of view *potential means possibilities of sufficient resources under maximum improvement of the existing state of influencing factors*. In mathematical terms one can express *potential* in the following way (1):

$$\text{Capability} = \text{theoretical possibility} - \text{actual result} \quad (1)$$

where *theoretical possibility* is a maximum result that can be achieved using sufficient resources under conditions of the most favorable state of *influencing factors*. *Influencing factors* (or *factors of influence*) are those environment factors whose impact limits *theoretical possibility*. In some cases one can exert an influence on the state of factors in order to improve their impact.



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Then one can speak about *maximum possibility*, i.e. maximum result that can be achieved using sufficient resources on condition of maximum improvement of actual state of *influencing factors yielding to influence* (fig. 1). In other cases influencing factors are actually beyond the zone of influence. *Maximum possibility* can be roughly forecasted. As regards to resources, they are undoubtedly important. One can imagine a situation when possibilities actually available under the existing state of influencing factors or opening as a result of its maximum improvement are not realized in full measure through insufficiency of resources. Incomplete use of even surplus resources can be regarded as insufficiency of resources.

In author's opinion, on the whole one can present *potential* in the form of *current potential* and *additional potential* (Figure 1). *Current potential* is characterized by the situation when under the existing state of influencing factors available resources don't allow to achieve the result equal to the *open possibility*. And vice versa, current potential is considered exhausted when with the help of the available resources and under actual state of influencing factors one achieves the result that is equal to the primarily assumed possibility or even exceeds it.

Potential can be higher than the *current* one in case there is a possibility to improve the state of influencing factors, so that they could stimulate the growth of possibilities. Thus, the actions favoring the improvement of influencing factors are leading to the increase of possibilities of using *additional potential*.

Theoretically potential can be even higher if one can succeed in improving the state of influencing factors in other countries (or that may happen without our interference) and get the possibility of using *external potential*.

Potential is indicated schematically in Figure 1.

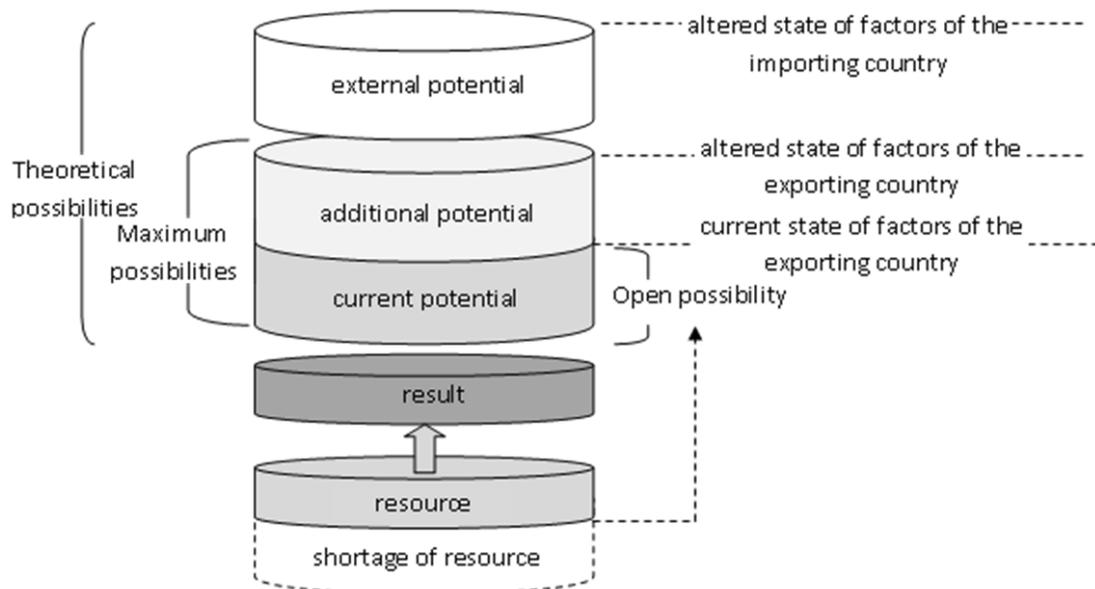


Figure 1. Levels of possibilities

Source: compiled by the author



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Potential in export of financial services is income in excess of the achieved result gained through sale of financial services to non-residents that might be received on account of sufficiency of resources under maximum improvement of the current state of those factors influencing export on which one can exert influence. In the frames of a individual financial institution one can relate to its resources qualified personnel, technical equipment of the organization, company's capital and other resources connected with rendering services. In the frames of international trade one can consider the whole financial industry of every country as its resource. In the context of financial services export the author tends to consider as resources that part of financial industry which includes resident parent financial companies due to the fact that subsidiary companies and branches of foreign banks represent individually their mode of international trade in financial services on the territory of host country (commercial presence). As a rule, they are not intended for further export of financial services to the markets of other countries. However, in the current work the author leaves out of account resources in order to calculate potential in export of financial services. The main consideration is given to calculation of additional capability of country's financial industry in export of financial services the importance of which for the country lies in:

- ascertaining the volume of its benefit for both country's national economy and resident financial institutions (owners and employees) in case of realization of potential;
- substantiated re-orientation of business strategy or a considerable concentration of the efforts of financial institutions towards rendering service to non-residents;
- well-considered decisions of government administrative bodies regarding stimulation of financial services export;
- choice of the most appropriate country's strategy for the development of financial services export.

As an example the author made calculation of capability of financial industry of Latvia. Separate aspects of potential were also analyzed in a number of other countries. In the given research one did not consider potential of a concrete financial service or an individual financial institution in export of financial services but the financial industry of Latvia as a whole because, in author's opinion, it is just at the level of a country there is a possibility of altering influencing factors which form the environment level that is favorable for the development of export of financial services.

Gravity Model for Measuring Capability in Export of Financial Services

For making research of *maximum possibilities* (Figure 1), the author went on using mathematical methods of econometric analysis. When choosing the model type the author decided in favor of *gravity model* as, in author's opinion, under conditions of the suggested conception it suits best for making calculations. Theoretical basis of working out *gravitation models* is founded by analogy with Newton's law of universal gravitation where the degree of gravitation between two objects is defined by their size and distance between them. Among all kinds of gravitation models of macroeconomic level the most popular is *gravity model of international trade* which, in its essence, is an adaptable regression model. The gravity model of



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international trade specifies trade as a positive function which attracts “masses” of two countries whereas the distance between them is regarded as a negative function that pushes them away. Defining total trade between countries “*i*” and “*j*” as $TRADE_{ij}$, the distance between both of them as $DIST_{ij}$ and considering as gravitation mass the product of gross domestic products GDP of countries “*i*” and “*j*”, then the classical gravity model of trade is as follows [12] (2):

$$TRADE_{ij} = f[(GDP_i \cdot GDP_j) / DIST_{ij}]. \quad (2)$$

Transformed into natural logs, the regression equation is commonly specified as (3):

$$trade_{ij} = a_0 + a_1(gdp_i \cdot gdp_j) + a_2(dist_{ij}) + u_{ij}. \quad (3)$$

Researchers have a right to adapt the model for their purposes on their own including, for example, variables to control for demographic, geographic, economic and other conditions. Having studied peculiarities of adaptation of gravity models in economics [12, 13, 14], the author modified the classical gravity model of international trade to calculate country’s additional potential in financial services export. Having taken obligatory elements of gravity model of international trade – *distance* and *GDP* of two countries, the author supplemented the given classical model by two of the formerly disclosed by her key factors – *total business tax rate (as % of profit)* and *financial market sophistication* [15]:

$$FSE_{ij} = a_0 + a_1(gdp_i \cdot gdp_j) + a_2(fms_i \cdot fms_j) + a_3(tax_i / tax_j) + a_4(dist_{ij}) + u_{ij} \quad (4)$$

FSE_{ij} – volume of financial services export from the country *i* to the country *j* [16];

$gdp_i \cdot gdp_j$ – gravity factor that reflects product GDP of both countries. Besides the fact that GDP of every country is a classical gravity factor by itself there is a synergy effect of their interaction that is explained by the fact that the size of GDP can be also defined, among other factors, by international trade. The higher and more successful it is, correspondingly, the higher are capital flows between the countries one has to serve, and that (factor) increases export of financial services. That is why the author applied multiplication of countries’ GDP and did not use GDP of every country as a separate factor.

$fms_i \cdot fms_j$ – financial market sophistication [17] of country *i* and country *j* is a key factor of gravitation. The product of factors of both countries was used due to the fact that in case financial market is developed in one country, then the participants of that market come to know well the particulars in financial services. This fact, in its turn, means that, when importing services, they will tend to accept services from more developed markets where one understands their demands. In that way one can expect the more considerable export/import of financial services between the countries with most sophisticated markets of financial services.

tax_i / tax_j – difference between tax burden for business between countries *i* and *j* [18]. The given factor is attractive as customers aspire to get from jurisdiction with high taxes to jurisdictions with lower taxes, and that factor is reflected in export of financial services. As this factor works with reverse traction, i.e. the higher the taxes the weaker attraction, it is calculated with reverse motion – from importer to exporter. The power of attraction is defined through division of total tax rate for business in importing country by analogous parameter in exporting country. Calculation of power of attraction for countries with privileged (low) taxation, “grey and black



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off-shores”, is an exclusion. Specific character of these countries lies in re-export of capital. That is why these countries not only export but also import in large quantities financial services accompanying capital flows. Proceeding from such a specific character, the author considers it correct to apply division so that the rate of the given off-shore is always in denominator, irrespective of the fact whether it is an exporter or importer of financial services regarding the partner country.

$dist_{ij}$ – distance between capitals of countries as usual places of most financial activity. The factor is repulsive. The author holds the opinion that the factor of distance, to a certain extent, will also work in modern conditions of transition to remote service. It can be explained by 1) lack of convergence of working hours due to difference in time zones, 2) customer’s necessity to visit, at least rarely, the residence country of financial services supplier for identifying oneself or settling some urgent problems, 3) a number of other minor reasons (mutual understanding, language, peculiarities of mentality).

Gravity model is intended for calculation of additional capability of a certain direction of export. For defining additional capability of country on the whole it is necessary to summarize additional potentials of all its directions in export of financial services.

When creating gravity model for export of financial services there exist a number of restrictions:

- 1) for dependable parameter FSE_{ij} one used statistics presented by *United Nations Service Trade Statistics Database*, section 6 “Financial services” [16] where one indicated not only total export and import of financial services of countries but, in many cases, they are subdivided into partner countries. However, in subdivided into countries statistics the volume of export from one country to another often greatly differs from the volume of import of the second country from the first one. In these cases the author used in her calculations the biggest of the two volumes assuming that the smaller volume is a consequence of omission of some data when compiling statistics.
- 2) in the model one used statistics of Austria, Germany, Poland, USA, Russia, Denmark, Czech Republic, Netherlands, Luxemburg and Cyprus in all directions of their imports. The data of these ten countries were used due to establishing the fact that only they imported financial services from Latvia. In their turn, the data of Latvian export of financial services for concrete countries were inaccessible. Thus the data of Latvian import to each of these ten countries were used as indices of export from Latvia to each of these ten countries.
- 3) this model was created according to the data of 2008. The access to the data of subsequent years was restricted on the moment of carrying out the research.

The author created gravity models (by the type of linear regression) for each of the ten importers. In author’s view, the models indicated rather similar parameters. On their basis the author created an integrated gravity model of financial services export of Latvia. The used for construction of the model data mass which includes definition of export flows from the whole world to the ten above mentioned importers made 475 combinations.

To construct a more sensible gravity model on the basis of the regression model, the author used logarithm function (natural logarithm) (5):

$$\ln(y) = \ln(a) + \ln(b_1) + \ln(b_2) + u ; \quad y = ax_1^{b_1} \cdot x_2^{b_2} + u ; \quad b_1 = e^{\ln(b_1)} \quad (5)$$



by adapting it for the case under consideration in the form of (6):

$$\ln(FSE_{ij}) = \ln(a_0) + a_1 \ln(gdp_i \cdot gdp_j) + a_2 \ln(fms_i \cdot fms_j) + a_3 \ln(tax_i / tax_j) + a_4 \ln(dist_{ij}) + u_{ij} \quad (6)$$

After processing the data by program SPSS, gravity model of financial services export was received with the following parameters (see Table 1).

Table 1

Parameters of gravity model of financial services export

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.636 ^a	0.404	0.399	2.317172

a. Predictors: (Constant), Dist(ij), FMS_i * FMS_j, Tax_i / Tax_j, GDP_i * GDP_j

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1713.895	4	428.474	79.801	0.000 ^a
	Residual	2523.564	470	5.369		
	Total	4237.459	474			

a. Predictors: (Constant), Dist(ij), FMS_i * FMS_j, Tax_i / Tax_j, GDP_i * GDP_j

b. Dependent Variable: FSE(ij)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-17.221	1.346		-12.793	0.000
	GDP _i * GDP _j	0.708	0.052	0.587	13.646	0.000
	Tax _i / Tax _j	2.003	0.286	0.289	6.998	0.000
	FMS _i * FMS _j	3.768	0.364	0.371	10.348	0.000
	Dist(ij)	-1.040	0.106	-0.380	-9.852	0.000

a. Dependent Variable: FSE(ij)

As it is seen from Table 1, the level of significance of all factors *Sig.* does not exceed 10%, i.e. one cannot accept a zero hypothesis. Determination coefficient *R Square* is equal to 0.404, and that indicates the fact that the proportion of variance of dependent variable *FSE_{ij}* can be fully explained (more than 40%) by the influence of the chosen factors. Verification of the hypothesis as regards determination coefficient indicated its statistical significance. One should note that the power of influence of every key factor on dependable parameter is not equal, as it is indicated by coefficients *Beta*. The strongest influence is exerted by GDP of two countries. Further, with practically equal level of influence, follow “distance between capitals” and “financial market sophistication”, for all that the factor “distance between capitals” as a



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repulsive one has a negative meaning correspondingly. The list is completed by “difference in taxes” as the weakest of the factors. The formulated by the author regression logarithm model looks as the following formula (7):

$$\ln(FSE_{ij}) = -17,221 + 0,708 \ln(gdp_i \cdot gdp_j) + 3,768 \ln(fms_i \cdot fms_j) + 2,003 \ln(tax_i / tax_j) - 1,04 \ln(dist_{ij}) + u \quad (7)$$

Inserting factor parameters into the given formula, the author calculated theoretically possible volume of financial services export for each of 475 directions. For visual proof of the result the author made use of the program for visualization of modeling results – *GEPHI* (<http://gephi.org/>). Visualization of the data received with the help of the model on ten importers and all of their exporting partners is indicated in figure 2. In the given scheme countries are designated by spheres, their diameter depends on the amount of country's GDP. The ten chosen importing countries are marked in green, and the red ones are the countries which are engaged in financial services export to these countries. The flow of financial services export is marked by arrows, and the width of an arrow corresponds to the volume of the delivered financial services calculated on the basis of the model. The wider the arrow the larger export of financial services is. The location of the countries in space approximately corresponds to their situation on geographical map of the world.

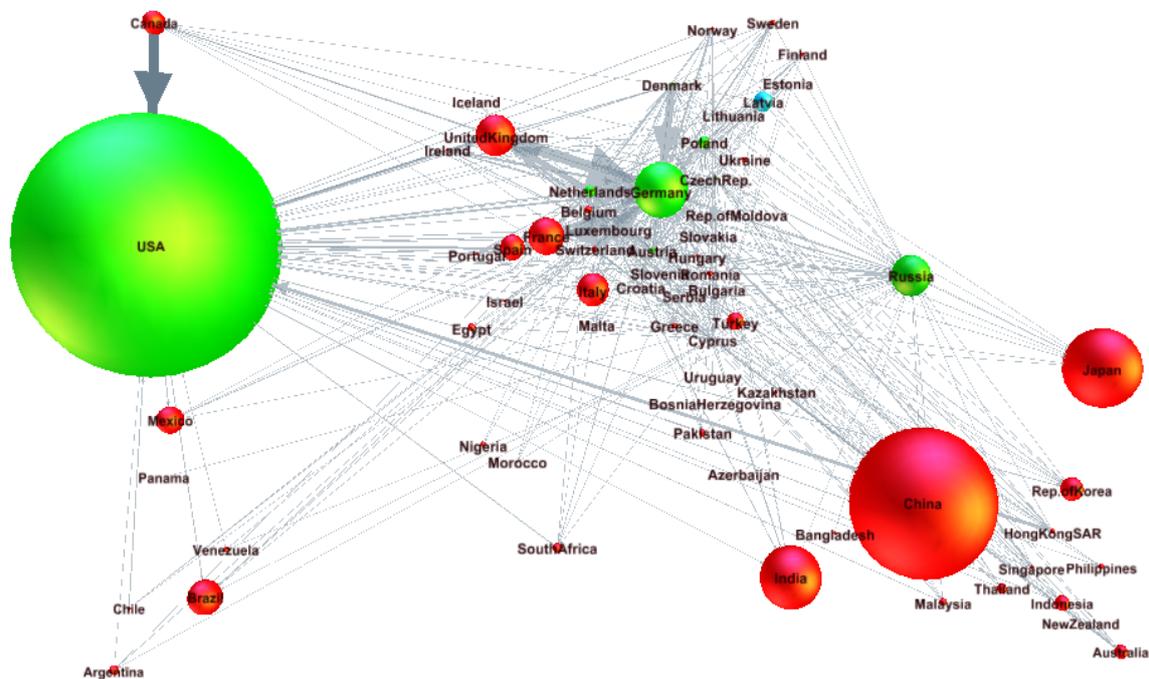


Figure 2. Directions of financial services export

Source: compiled by the author



Capability in Export of Financial Services

The indicated in Figure 2 flows of financial services export are not yet additional potential as such but calculated export of financial services based on four main factors of the model which make up 40.4% of all factors creating actual result. Additional potential of the country under study is calculated as the difference between maximum possibilities and calculated export of financial services in the direction of a certain country. For getting maximum opportunities one ought to improve at most the state of those key factors (on not all of which there is a possibility to exert an influence). In the first place, there is no opportunity to alter the condition factors of the importing country. In the second place, from the factors of the exporting country it is most difficult to exert an influence on the distance due to its physical essence, the existence of time zones, language and mental differences. Probably, only the development of information and communication technologies and the transition to serving in the regime 7x24x365 are in a position to smooth over these barriers. Another classical factor, GDP, is a mirror of economics whose change is also a rather slow process. It is easier to change the tax burden on business, but only in the frames of EU, where Latvia is a member country in the given case, whereas to change it radically for a tax-free harbor seems hardly probable.

The only chance to gain *additional potential* proves to be maximum improvement of the factor of *financial market sophistication*. To define maximum level of its improvement, the author took as a reference-point the best condition of this factor achieved in the period under research. Switzerland had the best parameter – 6.8 points on a 7-point scale [17]. Thus, instead of Latvia (4.5 points), this parameter was inserted in the model. The difference between the received second and first calculation results made up the sought-for *additional potential* of Latvia in financial services export by factor of financial market sophistication in 2008 (Table 2).

Table 2

Calculation of Latvia's capability in financial services export

Financial services						
No.	Expor-ter	Importer	Actual export	Theore-tical export	Theoretical result, improving the factor fms_i	Export capability, improving the factor fms_i
1	Latvia	Netherlands	9 876 420	2 285 576	10 828 902	8 543 327
2	Latvia	Luxembourg	6 479 428	1 163 608	5 513 096	4 349 488
3	Latvia	Cyprus	2 091 088	163 437	774 351	610 915
4	Latvia	Czech Republic	2 828 489	1 040 834	4 931 401	3 890 567
5	Latvia	Poland	838 585	1 781 479	8 440 528	6 659 049
6	Latvia	Denmark	187 145	1 270 733	5 946 292	4 675 559
7	Latvia	Russia	789 461	2 104 418	9 970 588	7 866 170
8	Latvia	Austria	1 472 597	3 636 402	17 229 026	13 592 624
9	Latvia	USA	831 600	3 299 303	15 631 872	12 332 569
10	Latvia	Germany	1 472 597	20 328 830	96 316 615	75 987 785
Latvia: Total, USD			26 867 410	37 074 619	175 582 673	138 508 053

Source: compiled by the author



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As it is evident from Table 2, under maximum improvement of the factor of financial market sophistication Latvia obtains considerable additional capabilities for the growth of financial services export by 474% (by 138.5 million USD).

Conclusions

In financial services export potential is an income in excess of the achieved result from the sale of financial services to non-residents that one might obtain owing to sufficiency of resources under maximum improvement of actual condition of those factors influencing export on which there is possibility of exerting an influence. Resident parent financial companies constitute country's resources. *Potential* is presented as a difference between a maximum possible income and actual result of export. It can be roughly prognosticated by orientating oneself on the state of factors of the leader of financial services export. *Current potential* is characterized by the situation when due to insufficiency or non-activation of resources one failed to obtain possible income under actual condition of influencing factors. *Influencing factors* are environment factors the influence of which restricts maximum possibility of financial services export. Maximum improvement of the state of influencing factors provides *additional potential*. Calculated with the help of modified gravity model that is adapted for the needs of financial services export, *additional potential* of Latvia in export of financial services in the direction of Austria, Germany, Poland, USA, Russia, Denmark, Czech Republic, Netherlands, Luxemburg and Cyprus, under improvement of the factor of *financial market development* to the level of Switzerland, makes up 474% of the calculated result for the period under research.

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A STRUCTURAL APPROACH FOR ONLINE SURVEYS – VALIDATE, MOTIVATE AND PROVIDE TRUST

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Keywords: online questionnaires, online surveys, user participation, user interaction, user design

Abstract

The article targets the issues which are rising in the environment of online interaction by proceeding information requests to an anonymous audience. The author has as target to understand possible issues during the preceding of online surveys from the organization and participant point of view to provide solutions in the sector of communication and technical infrastructure to increase the validity from the results of an online survey.

To understand the possible issues in an online survey first the different possibilities for errors are defined through expert interviews with experts in the online environment. With this information users are researched to understand the perspective of participants and the motivation for signups and providing of personal information. For this the drivers for the providing of truth and the reasons for the trust in providing that information are defined. With the gathered information the drivers for a valid interaction are defined.

To support the validation directly during the usage, state of the art technics, based on learning out of former online surveys are provide, to avoid the usage of non-valid data. To support the participant during their interaction by providing content in a survey or by filling out a questionnaire several technics are described and provided with the goal to increase the quality from the content and to avoid wrong data. Out of the collected and aggregated information as also from the provided best practices and possible solutions for the setup from the infrastructure of online survey platforms, a technical and process oriented framework is provided to increase the quality of online questionnaires.

Introduction

In the current time, the Internet as communication channel is responsible to gather more and more information. Also empirical research is preceded with this technic to react fast and cost effective on the research market and in the global environment. Beside the traditional procedure, with the collection of personal information or opinions during a personal contact, via a face to face interview, a questionnaire, which is provided by a person or a telephone interview, surveys via the Internet are more anonym. This allows the participant to answer complete anonymous and maybe also to answer in a not correct way.



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The anonymous environment leads to an issue, which also exists in a personal interview, but which has an expected higher possibility on the online environment – the providing from wrong data and information. This leads to the situation that people can estimate that an online survey has not the scientific output as a normal survey would have. To avoid this situation and to increase the quality from data and the research itself, this article provides information about influences on the data quality and provides directions to satisfy participants more effectively, as also provides technical ideas how to increase data quality also from the technical perspective.

To the end from the article, the findings of research are aggregated to display the most effective factors in the supporting from users and visitors to participate in online survey with a high efficiency. In this context ideas for best practices are determined, which tries to be on the first side to influence the participant and to support him on the second side during his participation.

Relevance

For the author as also for all students or researchers which use online surveys as research medium the data quality in online surveys is an important issue. In this case, the influences factors are research, to understand the influence for an upcoming research for the doctoral thesis. This is done to understand user behavior in a more correct direction and to use questionnaires with a higher success.

With the finding from this article, which were aggregated in the conclusion section, suggestions and factors are identified, which should be supported during an online survey to increase the quality from the data as also the participant from the visitors and user of an survey itself. Those will allow researches in general and other peoples who wants to precede a survey in an online environment to increase also their quality and with this the results itself.

By following those best practices, the author will try to increase the quality from his research during April-May 2012 for the definition of online milieus which made the usage from online surveys for the gathering of information in this sector necessary.

Empirical Background

Empirical research is necessary for our daily life. It is used for marketing approaches, advertisement, media, forecast or as basement for changes in politics. It has as target, to be useful in our daily life and tries for this to support researcher in their daily life to supported hypothesis and to establish theories. This happened always in the context to provide a relationship between a scientific approach and the reality itself [1]. In this context it is important, to be able to measure a situation or to research in information, to break down a situation or context into variables with different indicators, which allows the measurement from those [2]. To be able to measure the response from participants, which is mostly the motivational reason behind a questionnaire, a number or scale must be defined for an empirical relative. To support the participants in this situation, the usage from scale is highly recommended. For the sector of scale, nominal scales, ordinal scale, interval scales or ratio scales are possible [3]. Based on the situation, the right scale must be selected for the too measured empirical relative.



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To gather the necessary information for this research it is mandatory to describe the methods which are used in this research. For this the methods group discussion, interviews and questionnaires are described. In this context, the terms from open and closed questions are explained.

One of the most used techniques, which is well known from the daily life of human beings, are questionnaires. Those can consider of the mentioned open or closed questions. A Questionnaire contains mostly several questions which are provided with additional information, to participants, which are part of a target group. Those target groups should be selected in combination with the hypothesis or area in which is researched. Normally questionnaires are handled manually with the target group as print out. The filled out questionnaires are collected and insert in a database or balance sheet to provide the ability for further research. The important factor for the usage of questionnaires is that advantage of standardization. With this a comparing from the answers is possible, which is needed to provide objectivity, reliability and validity. For the publication from a questionnaire two other directions exists, except the face to face providing from the questionnaire. It is also possible to gather information via telephone, based on the questionnaire, where a researcher is reading the questions and answers to the participant and, as option, which is interesting for this paper, via an online questionnaire. In this case, the questionnaire is sending out to selected amount of people or is available for all persons which want to participate. The past has provided a good acceptance from this technique, but it is important to understand how to support the user during the usage process [4]. For all content in questionnaires, it is important to have the right questions – open or closed, they must be wisely selected.

With the term of open questions, the ability to participants is given to answer in that direction as the participant wants to answer. The participant writes the answer or response down. With this qualitative approach it is possible to gather all kinds of response and to receive the broadest band of response as possible. From the context of those answers, possible answers can be subtracted and suggested to the participant by transferring those open questions into closed question. During this process it must be keep in mind, not to influence the participant during those suggestions. For the analyses from those answers it is hard to establish a scale and the response must be sorted manually, based on the assumption and experience the researcher has in this sector. By using closed questions, a participant is only allows the response on a scale or with the selection out of predefined answers. The approach of closed questions is to follow the approach from scales to make it possible to measure answers in a direct way. With this, the quantitative approach is supported. With the results, a direct measurement is possible and results can also be measured in a mathematical direction, via dedicated analyses methods.

In this context, it is mostly recommended to collect first possible way of responses. In this approach, first open questions are preceded and as next, out of the results, closed questions are established. Beside the mentioned questionnaires, which is preceded without a high level of interaction between researcher and participants, two other methods must be mentioned and explained. Those are group discussions and interviews, so called psychological research methods.

Group discussions have several advantages. People are able to providing and establish knowledge and ideas more effective in a group as one human being itself. The psychology of a group has displayed in the past, that solutions can be find more effective, that the group



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members can influence them in the group, which increase the level of ideas and reflection and that the people in a group, react based on a good structure, which establish a group normally by itself, more spontaneous and with this the group reacts fast and effective on changes. For a group discussion it can be possible just to discuss topics, or to guide the members through a prepared guideline. It always has a basic conversation guideline, which sets the borders for the discussion itself. The discussions can follow approaches from brainstorming, pure discussion about a topic or explorations of predefined topics. With this, an additional qualitative method is available to gather, as mentioned, ideas and factors for closed questions or quantitative research.

As last technic, the interview approach needs to be introduced. Interviews itself can be provided in a face to face interview, which allows to see the direct response from the participant and to react faster on his reactions. If it is not possible to interview a person face to face a telephone interview is also possible. This method allows also to handle a dedicate amount of persons in fast way as it is possible by face to face interviews, based on the transaction time for the change of the place to meet up with the next interview partner, which is a similar advantage as by providing from questionnaires via telephone. Both interviews can be handled in a closed direction, by only providing the questions. With this an interview guideline is followed. This allows the researcher and with this, the scientific approach behind the research, to receive standardized answers. Standardized in that direction, that the source from the response is standardized, this allows a more detailed interpretation from the results, also for other researchers. If the researcher does not provide additional information the interview can be called a closed interview. When a topic is discussed in general, this method is then called an open interview. Based on the factor that in this case, a discussion can go quickly in a direction which does not fit the approach of the research anymore the exploration of the direction from the research can be done, to support the output. In this case, the interview is a so called explorative interview [5].

For the following research, the introduced methods will be used to determine the mentioned framework for online surveys.

Research

To receive a dedicated understanding about the influence factors about the handling from private information in the communication via the Internet and the providing of those in online surveys, dedicated methods, which were introduced in the sector from the empirical background, were used. For this, the method of interviews, in person and via telephone, were used and supported by a questionnaire, which was filled out manually.

As first step, a group interview was done with 12 students from the University of Applied Science Weserbergland on November 16th, 2011. Following on the gather information an interview was preceded with Torben Friedrich, a politician from the German pirate party, a political party which had their focus on data protection and online usage, on November 19th, 2011. Out of the information from the interviews a questionnaire was build which was handed out offline to 65 people. Beside the questionnaire, additional telephone interviews were done to receive more information regarding the providing from personal information in an online environment. In the following the several research steps are described in a more detail way.



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As described, in the first step a group interview was preceded. Those had as goal to gather as much information as possible about influence factors. The group interview was started with 12 students in the sector of Business Informatics with a specialization in application development. With those persons, a group was found which has to work on a daily base with user interaction and with the gathering of information in applications. The participating students could be divided into 3 females and 9 males in the age range between 19 and 40 years. Before the discussion started, the participants were informed that the discussion has as target to gather as much information as possible about the handling of private information in the Internet. During the discussion the following two topics were during a moderation discussed:

- When do you share private information in the Internet?
- When do you provide valid data or invalid data in the Internet?

For each question a dedicated amount of ideas and results were provided from the group. Interesting were during the discussion that several approaches for the communication of information in the Internet exists. Out of the provided information the following findings can be determined, which influences the information sharing behavior of people.

- It must be distinguished in which situation is share personal information with another person or website.
- It must be distinguished with whom I share the information.
- It must be clear under which circumstances I share the information.
- Under which reasons and for which goal do I share the information.
- How serious is the environment in which I share information and to which institution or person do I share the information.
- What is the added value from the participation? It should be clear, what the participant gets out from the interaction.
- A user must be aware that information are directly provided by the usage from the Internet itself, such as forums or search engines.

To increase the deepness of those results and to get a better understanding from the user perspective, the mentioned interview with the politician Torben Friedrich was setup. Based on this political work Mr. Friedrich has a deep knowledge about Internet privacy and especially the current post-privacy discussion. Before the interview was preceded Torben Friedrich was informed, that the interview has as goal to find influence factors for the valid providing of personal data in the Internet and factors which would influence the providing of valid information in online surveys or which would influence the participation in online surveys in a negative direction by providing non valid information.

The interview with Torben Friedrich, which was preceded based on predefined questions, resulted in the following findings:

- A relationship should be established with the person/organization to which I send information, to increase a higher efficiency in the response.
- It must be clear who is working with the information, after the information is send.
- Can the participant influence or change something with the information which is provided?
- Do I understand the goals from the requesting of information and do I agree on them?



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- It should be understandable what will be done with the information and how the result will influence the participants life.
- The security features and functions, which support the data transfer, must be understandable for the participant.

Together with the findings from the group interview, those findings were the basement for a questionnaire regarding honest in the participation in the Internet. The questionnaire was preceded with Business Administration and Business Informatics students, as also with additional people in the hometown from the author. The questionnaire itself had the following questions.

Table 1

Questionnaire “Honesty in the Internet”

Gender:	<input type="radio"/> M / <input type="radio"/> F										
Age:	_____										
Start Internet usage (Month/Year):	_____										
<u>You are providing valid personal information in the Internet if:</u>	Do not agree		–			Neutral		–		I agree	
	1	2	3	4	5	6	7				
A1. You want to test the service:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A2. Use the service for a longer period of time:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A3. Friends or acquaintance have sign up:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A4. You want to use a service for business purpose:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A5. You want to use a service for private purpose:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Do not agree		–			Neutral		–		I agree	
<u>You are answering honest in the Internet, if:</u>	1	2	3	4	5	6	7				
B1. You are expecting an added value from the participation, like a price:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2. You are expecting an added value from your participation, like a change from the current situation (i.e. in politics):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B3. The survey is related to myself:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B4. The survey is in combination with a raffle:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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B5. You are in a relationship with the person how is requesting information from you:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B6. The Internet form is secured with a codification like HTTPS:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B7. The questioner is serious:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B8. You have to fill out an empty attribute:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>What is for you important to accept a survey as serious?</u>	Do not agree – Neutral – I agree						
	1	2	3	4	5	6	7
C1. Internet address of the survey:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C2. Design (no advertisement, lean illustration):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C3. Scientific questions:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C4. Objective questions:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C5. Kind of language:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Are you responding to a survey in a more positive way, if:</u>	Do not agree – Neutral – I agree						
	1	2	3	4	5	6	7
D1. You can win a price:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D2. The answers can be get connected to you:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D3. You are in a relation with the institution which sets up the survey:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D4. An ID or PIN is displayed on the address from the survey:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For the age, as also for the time period, since when the Internet is used, free text field were used. The answer possibilities for the questions A1 – D4 were designed as closed answers with a seven-level Likert scale, to allow the participants to differentiate their answers in a certain manner. The questionnaire itself was answered by 65 people (24 women and 41 men), with an average age of 23 years (median: 21, mode: 21) in a general age range between 18 and 54 years. This focus on younger people happened first based on the later approach from the research, which focusses also in younger people as also on the handing out from the research in a local university. Based on this place, the most participants were also students. Those students were mostly from the sector of business administration and business IT. The preceded questionnaire was well accepted and the feedback was well. For the results a database was setup



to gather all the data and to be sure that the data is inserted correct. After this, the data was analyzed in MS Excel to receive the median, mode and standard deviation for each question. The result displays, beside that fact the average start year for the Internet usage was in 2001, to following figures.

Table 2

Results “Honesty in the Internet”

	Median	Mode	Standard deviation
A1. You want to test the service:	2	1	1.73
A2. Use the service for a longer period of time:	6	6	1.65
A3. Friends or acquaintance have sign up:	6	6	1.62
A4. You want to use a service for business purpose:	7	7	1.59
A5. You want to use a service for private purpose:	5	6	1.61
B1. You are expecting an added value from the participation, like a price:	5	6	1.69
B2. You are expecting an added value from your participation, like a change from the current situation (i.e. in politics):	5	5	1.54
B3. The survey is related to myself:	5	5	1.61
B4. The survey is in combination with a raffle:	3	2	1.58
B5. You are in a relationship with the person how is requesting information from you:	6	7	1.53
B6. The Internet form is secured with a codification like HTTPS:	5	6	1.65
B7. The questioner is serious:	6	6	1.46
B8. You have to fill out an empty attribute:	4	4	1.47
C1. Internet address of the survey:	6	6	1.70
C2. Design (no advertisement, lean illustration):	6	6	1.52
C3. Scientific questions:	6	6	1.44
C4. Objective questions:	5	6	1.54
C5. Kind of language:	6	6	1.60
D1. You can win a price:	4	6	1.85
D2. The answers can be get connected to you:	5	5	1.73
D3. You are in a relation with the institution which sets up the survey:	5	5	1.50
D4. An ID or PIN is displayed on the address from the survey:	4	4	1.74

The results provide a basic ability to receive information out of it, also if the amount of participants is with 65 people not as high as it should be. The request how a person act (A1) if s/he tries the service, displays clear that a test of a service results with a high possibility in the providing of wrong personal data, based on the situation that it is not planned to use the service for a longer time period. With this in mind, it should be avoided to let the user in a test situation. The user should receive the assumption that a long term usage would made sense. In this case,



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the participants answered in median with a 6 (A2) comparing to 2 (A1). Interesting is in this context the differentiation between business and private providing of personal information. The median from A4 displays with a 7 displays for the providing of information in a business context (A4) a very high support, instead of a 5 for providing information in a private situation (A5). This means that for business purpose nearly everyone provides his real information and response with true information. In the private sector, and with this it is more related to each person itself, the willingness is reduced. In this context the question A3 is very interesting. It displays that a person response more valid personal information if friends or acquaintances have already sign up to the network or service. In this case, the willingness to provide more valid information is higher as in the response on the question A5. This means in the case that friends have signed up, which would also be a private situation, the willingness is higher to provide more valid data. Those questions, which were related to the personal added value of a person displays a lower influences on the personal behavior in responding (B1-B3). Interesting is in this situation the response on question B4, the providing of a raffle in combination with the answering behavior. In this context, the response of a person is not valid, based on the possible winning. This is displayed in the average response of 3.14, a median of 3 and a mode of 2. A high influences on the valid response to a survey or on a questionnaire has the relationship between the person how participates and the person or organization which provides the survey (B5). This provides an opportunity for further questionnaires, if a relationship can be established to the participants. Those can be done by providing personal and additional information regarding the questionnaire and the organization or the organizer itself. This is attended with the response to seriousness from the organization or person which published the questionnaire (B7), which has also a high influences and a high response rate. The usage of encryption technics is also supported by the users, which is displayed in a positive average and mode (B6). For the proceeding of surveys in general is the response on B8 interesting. This question asked for the response on empty fields, where the user has to insert information. In this case, the response was neutral overall. A direct look onto the figures, displays that slightly more people answered positive, as negative, but this can mean, that the responding on those free questions is not as supported as it should be. For this, the usage from those questions should be avoided online, based on the missing direct interaction with the participant. In the sector from the factors for the question section regarding „What is for you important to accept a survey as serious?“ all factors (C1 – C5) displays a similar influence, with a median and mode of 6 (except the median for C3 with a 5). For further online questionnaires this means that all of those factors should be taken into account for the building of a survey. In the sector of positive answers during a survey, the providing from a price has and significant influence on the behavior from a participant (D1). The relationship to the person or institution, which provides the survey (D3), has the same influence as the ability that the answer can be connected to the participant. In both cases a little positive influence can be measured, in the average, as also in the median and mode. The question D4, if an ID or PIN in the URL influences the behavior in responding, was mostly rated as neutral. This provides two options, first the participants do not care about that information in the URL from a survey or, which is also supported by the additional and personal requests, during the hand out from the survey, that they didn't understand the question and were not able to understand the relation between an ID and the survey itself.



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After the questioner two additional telephone interviews were done with persons who work business related in marketing departments in the Internet sector. This happened first, to double check the results from the survey and second to understand if additional factors exist. The first interview was preceded on December 28th, 2011 with Nina Mayerhoff, Managing Director Non Book Products at Buch.de Internetstores AG. This interview had as finding that trust is the mandatory basement for the communication and interaction with possible customers and visitors. Buch.de supports this active as company by providing trust first to their customers. This is being done, as best practice, by let customers first receives the goods, before the pay via money transfer. During this procedure, the customer is support by providing him the ability, after receiving the good, to setup an automatic bank collection for one time only. In this context it is also highlighted, that the way of gathering information has an influence on the success possibility. If data is collected where the customer see no connection to the procedure itself, the data will not be provided or only with a higher level of failure.

In addition to this telephone interview, an additional interview was done via telephone on January 5th, 2012 Jens Loddeke, Product Manager Mail at the leading German Internet portal 1&1. The interview was preceded with the same questions and provided as findings, that a user can sometimes not distinguish if private or business data are communicated. In general it was determined that user will mostly communicate private information, from the private as also business perspective, when a position needs to be done or will be done by the person. This can happened for business as also for private reasons. Highly interesting was the response on the request why people will not provide valid information. It was suggested, that the main reason for users would be to stay anonym and to avoid the providing of private data, instead of try just to passing the sign up process quite fast. In this context, and based on the business experiences, it was also stayed out that the design itself can support users in providing private information. A good design can also bring users in the position to provide data or information for a non-serious signup.

With all this feedback a framework of statements can be defined, which allows the design and communication of an online survey more successful. Beside this feedback from users and business participants it is also important to understand the possibility, which is provided from the technical area for the supporting of online surveys. During past survey, in the years 2009 and 2010, the members from the German Pirate party were investigated from the author of this article. During those investigations it has be determined, that a contact page for participants should exists, as also an information page about the data privacy. For the content of the information page about data privacy it was helpful, if people, which works on their daily business on this topic, review those formulation. This was helpful not only from the legal side of view, but also from the user point of view, regarding the understanding from the formulation and the communicated content. That approach also leads to the situation that the participating persons supported those surveys via the forwarding from the request to support the survey and that the reacted on requests regarding the data protection. In this context it was also helpful to let those people check the security functions of the technical framework, to receive also their support in this direction. For the security functions from the system it is important to avoid, so far the system is not an invitation only system, where each interaction can be tracked individual and could be set into relation with a dedicated and know user, that SQL injection, as hacking mechanism, is checked by the database itself. With SQL injection, existing data can be deleted



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from the database or can be changed. That mechanism must be implemented for fields, as also for requests itself. For this it is also important to work with “get” mechanism on the server side from the application instead of “push” variables. Regarding the acceptance of online survey it must be checked in advance if the server can work with a high amount of requests to handle several users at the same time. In the past, when supporters resend invitations for previous surveys, this has become an issue, when more as 5 persons insert content at the same time. For this, also the amount of questions should be reduced on a level of 20 variables per request page at one time to reduce possible data lost as also to reduce the amount of transferred data for the database to a level which let the server works efficient with the provided data. Is good practices, to avoid the inserting of data from the same person in a survey and with this the inserting of wrong data, could be defined the HASH5 encryption from IP-address and Operating system, as also the same variable and browser in addition. This allows in an anonymous way to compare the sending computers and with this the check if a system has insert data several times. Of course is in this situation the manual double check of validity from the insert data possible and the insert data should not be deleted only based on a double HASH5 code.

Conclusion

To increase the participation on a survey several factors must be taken into consideration. During this article, the way to gather those factors were described in a manner which allows each person to understand the way from the gather of the information and the way factors were determined. Based on that information the most important findings are highlighted in following part to support the honest answering in online participation.

Overall the following requirements can be determined for online surveys and questionnaires:

- Trust must be established, which can be supported by the design from the survey as also from the way of communication from the questions and descriptions.
- The target and goal of the questionnaire must be understandable for the participants. If the direct communication from the survey is not possible at the beginning from the research, the participant should be receiving possible information after the participation. At the beginning the user should be information in this case that it is not possible to provide additional information at the beginning.
- The provider of the survey should be communicated and it should be understandable which targets the provider has.
- For the design an approach should be used, which is free of advertisement (noncommercial) and which should create trust and did not deflect the user from the participation.
- It should be possible for a person to receive additional information about the scientific work, also after the participation.
- To support the data protection the user should have the possibility to erase his data after the participation. Also it should be possible to change possible answers afterwards.



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In addition to these requirements onto questionnaires, additional factors could be determined, which influence the providing of honest information in online surveys:

- Should questions should be preferred and free text field, where participants can insert individual response should be avoided. This should be done, to avoid extra barriers in the inserting of information and data for the participant. This barrier can be a reason for a participant to insert invalid or wrong information. For this closed questions should be preferred.
- The user should be informed, if private or business related information should be communicated and that a distinguishing between both can be necessary to avoid extra complexity for him.
- It should be tried to establish a relationship with the participant in a direction that the motivation from the person how has established the survey is understandable, but it must be communicated also in such a situation, that the survey must be answered honest and true.
- It should be avoided that the participant has the feeling that s/he can test the survey. For this at the end from the questionnaire a question “Did you filled out the questionnaire honest? If not, if you only tested it, please click here” can help in this situation. This helps the user to be honest and maybe to proceed the questionnaire again and at those moment with valid information.
- A participant should have the possibility to share the survey with his friends or associates, if this would create an added value for the research, to establish an additional relationship with the survey.

For the technical setup, if a system is developed independently for an online survey, it must be kept in mind, to communicate the data protection and to check if SQL Injection is avoided. Also a contact possibility should be provided. As last factor, the ability from the server to serve under load, if a high amount of users access the survey, should be checked or taken into consideration to be aware to respond in such a situation fast and successful.

By following those suggestions, from the three sections above, the quality from the preceding of online survey to fulfil a questionnaire in the Internet, will be increased. For this, the following of the suggestions can be recommended for person who wants to precede such an empirical technique like an online survey.

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INVESTIGATION OF THE OPPORTUNITIES OF STUDY PROGRAMME QUALITY ASSESSMENT

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Abstract

In the world to assess the higher education quality there are used different methodologies, assessment criteria and various indicators, as a result of which there are ranged higher education institutions and study programmes, however, the results of them cannot be perceived unambiguously. It is clear that the assessment results which higher education institution or study programme will be better or worse is very often detected by the choice of criteria. It is very difficult to find objective criteria which could be used universally for all study programme types and allowed to assess them far and wide. Because of that besides the ranging of higher education institutions there are still made investigations and worked out methodologies to assess study programme quality and improvement.

In the democratic society a person has the right to have different opinion; therefore there is not a single “correct” quality definition. Quality can mean different to everybody. Mostly everybody understands intuitively what the word ‘quality’ means, but it is hard to ground and explain. Probably the different understandings about the higher education quality create doubt in the interested sides about the higher education quality itself. So, one of the research tasks is to clear out how different are the understandings of two main interested sides (students and higher education administrators) about higher education quality and its major criteria.

The aim of the research made is by doing expert survey and using The Analytic Hierarchy Process (AHP) method to investigate the opportunities of study programme quality assessment to form the methodological basis of study programme assessment, as well as to clear out main higher education experts’ (students and higher education administrators) understanding of study programme quality. In the research the experts evaluated 24 criteria which characterise both the quality of study programme offer and study programme implementation. Experts’ task was to determine importance coefficients for criteria in study programme quality assessment.

Introduction

Higher education quality has always been an important precondition for the development and long lasting of national economy. At the moment in Latvia when all the higher education study



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programmes are evaluated centrally, the question of study programme quality assessment criteria is becoming especially topical. Which criteria should be used to evaluate the study programme quality valuably and objectively? Which way should the study programme quality be evaluated: by using experts' assessment, quantitative indicators or students' assessment? Very often the choice of assessment criteria determines the result of quality assessment. In its turn, to select the assessment criteria it is necessary to understand to detect what is understood by the quality in higher education.

The aim of the article is by using expert survey and hierarchy analysis method to investigate the understanding of the main interested sides of the higher education (higher education administrators and students) about the study programme quality and to determine importance coefficients for selected criteria in programme offer and implementation quality.

The first part of the article there are viewed the theoretical aspects of higher education quality definitions. The second part shows the research methodology and informative basis. In its turn in the third part the author summarises the results acquired in the expert survey by using different quantitative analysis methods to investigate experts' understanding of study programme quality and detect the main criteria for study programme quality assessment. Summarising the results of expert survey, there is used AHP method, which allows acquiring each expert's individual assessment about the importance of study programme criteria. To detect if the understanding of the main interested sides about study programme quality is similar, there is done t-test analysis. In its turn, to compare the assessments of expert groups about the significance of criteria in study programme quality more clearly, the criteria are ranged. With the help of ranges there are detected the main and less important criteria, as well as there are detected those criteria which were most differently assessed by the experts.

It is very important to set a right criteria for study program quality assessment because criteria have influence on evaluating purposes and expected results. [3] For example, if learning-outcomes are using like evaluating criteria: they can evaluate student's knowledge and skills, but they can not evaluate content of study program or organization of study process. There were use different source of information about practical experience to choose criteria for this investigation:

- scientific publications of researchers from Griffith University about significance of interpretations of criteria [3];
- policy documents and recommendations from International Network of Quality Assurance Agencies in Higher Education (INQAAHE) [5] and practical experience from University of Exeter [10] about definitions of evaluating criteria;
- publications from University of Catalonia [9] and Maastricht University [2] about practical experience and recommendations how to set criteria;
- guidelines for quality assurance from Lund University [6, 7] and policy document about accreditation from European Higher Education Area [1] about usability of criteria in higher education quality evaluation and assurance;

Determination of criteria promotes explicit research for investigation. Dictionary of science and technology defines criteria as main sign or indication for classification. But dictionary of foreign words defines criteria as standard, rule, or test on which a judgment or decision can be based. In higher education, for example, University of Exeter evaluating criteria apply to assessment of student's knowledge [10]. Evaluating criteria are defining like description of knowledge and skills, what student will be able to demonstrate after finishing



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study program or course. Purpose of evaluating criteria are to determine clear and unambiguous standards for learning-outcomes. [4] In this investigation is used perception of criteria from INQAAHE [5]: criteria are benchmarks, what allow assessing quality of input and process. Criteria not only assess quality of study program, but also characterize study program in this perception. Wherewith administration of study program can use criteria as describe indicators in making decisions about improving offer of study program or implementation of study program.

1. Theoretical Aspects of Higher Education Quality Definition

Before evaluating higher education study programme quality one should understand what exactly we want to evaluate, what characterises best qualitative study programme. Is there evaluated only the ability of a graduate to enter the job market and earn the income as much as possible? Is there evaluated the usage of the knowledge and skills acquired in studies? In both the cases there is evaluated the result of studies which, of course, is very important. However, it does not always characterise study programme quality, because it is affected by a lot of factors outside studies. So, it is important to evaluate also the resources available to study programme and the study process itself.

Table 1

Higher education aims and interest sides

Higher education aims	Interested sides in higher education	Aims of interested sides	Higher education tasks
Research development	Higher education institution and academic staff	<u>Higher education institution image:</u> Scientific achievements; Graduates' competitiveness in the job market; International cooperation	Promotion of new scientific inventions; Material and technical supply for science development; Study quality development; Promotion of international cooperation
Personality development	Students as separate personalities	<u>Respectable status in the society:</u> Material prosperity; Certain cultural, intellectual, moral and physical level; Suitability for society	Provide competitive education; Provide good theoretical and professional knowledge; Promote the usage of acquired knowledge in practice; Develop the generally used skills, including communication skills
National economy development	Employers	Increasing business effectiveness; Increasing profit	Prepare highly qualified and knowledgeable specialists
Society development	Society on the whole	<u>Developed society:</u> Creative, Cultural, Physically healthy, Economically, politically and socially developed	Prepare the new generation of scientists researchers; Prepare good specialists; Prepare educated, culturally and virtuously developed personalities

Source: added by the author from [N.Š. Ņikitins and P.E. Ščeglovs]



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To detect what is qualitative higher education and study programme, there should be set its aims and tasks in modern society. Higher education can be divided into four main aims and set four main interested sides; Table 1 clearly shows the connection between the higher education aims and the needs of interested sides. Table arranges the interested sides according to correspondence to one of higher education aims, as well as there are indicated the aims set by Russian researchers Nikitins and Ščeglovs for each interested side. [11] In their turn, looking at the aims of interested sides, there are detected higher education tasks concerning each interested side.

The aims of higher education and interested sides are mutually connected. Therefore the precondition of study programme implementation is qualitative education, because this way there is proved the usefulness of higher education. According to the Table, we conclude that qualitative higher education is a precondition of successful development of any country and its society. Education brings good not only to the individual and higher education institutions, but also to the society and the country national economy on the whole.

2. Guidelines of the Research

Traditionally, when evaluating the quality of higher education or study programme, there are distinguished three assessment aspects: first, contribution, to provide study process, or “available resources”; second, study environment and process organisation and third, students’ acquired knowledge and skills or graduates’ achieved results. This approach is suitable to do international comparisons, demonstrate higher education achievements to interested sides and form political development strategies for higher education. However, to assess the quality for study programme it is important to abstract from the assessments, which are not directly referred to its quality. For example, it is practically impossible to evaluate how big is study programme contribution to the student’s newly acquired knowledge and skills or achieved results! They are formed, on the one side mutually interacting study programme offer and implementation, but on the other hand, the student himself getting involved into study process, as well as they are affected by a lot of different factors outside studies. Therefore high study results do not always testify of qualitative study programme and vice versa. So, the quality of students’ study results is not only the responsibility of higher education institution, it is also co-responsibility of students. Students’ achievements in studies and outside studies are not directly referred to study programme quality. Also, straight after completing the study programme the results acquired in studies and their usage are hard to identify, because there is necessary to have real practical action during several years to evaluate the real application of study results and their usability. Taking into account the mentioned above, for experts’ assessment there are offered 24 criteria, which characterise the quality of study programme offer and the quality of study programme implementation.

The quality of study programme offer is formed by study programme workout. There are set certain study programme aims according to higher education aims and needs of interested sides, worked out study courses, attracted academic staff and provided corresponding environment. To characterise the quality of study programme offer, there were set 12 criteria:

- 1) *study programme aims referring national economy (Offer 1);*
- 2) *study programme aims referring research (Offer 2);*



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- 3) *study programme aims referring society development (Offer 3);*
- 4) *study programme aims referring personality development (Offer 4);*
- 5) *clearance and accessibility of study programme aims (Offer 5);*
- 6) *correspondence of study course offer to study programme aims (Offer 6), that is, coordination of study course aims and results with study programme aims and results;*
- 7) *study course contents quality (Offer 7);*
- 8) *study programme director's administrative skills (Offer 8), that is, ability to prepare and keep study programme documentation according to the requirements, including study programme self- assessment preparation quality;*
- 9) *academic staff qualification (Offer 9), which is characterised by the position structure of academic staff involved in study programme, existence and correspondence of scientific degrees, length of service, as well as average age;*
- 10) *research activity of academic staff (Offer 10), which is characterised by publications and participation in conferences and projects;*
- 11) *library resources provision (Offer 11), which is characterised by literature sources and available data bases;*
- 12) *material and technical provision of lecture rooms (Offer 12), including laboratory provision and accessibility of computers and internet.*

The quality of study programme implementation is oriented to process to organise as high as possible study result achievement for students. Its main characteriser is education effectiveness, that is, in what amount a student acquires new knowledge, skills and values during the studies. To characterise the quality of study programme implementation, there are set 12 criteria:

- 1) *support in study process and study environment (Impl 1), which includes in itself the accessibility of information in studies, responsiveness of administrative staff and informative system;*
- 2) *dynamics of number of students (Impl 2), which is characterised by the changes in both the number of students and structure (proportion of first year students and graduates);*
- 3) *quality of applicants (Impl 3), which is characterised by applicant selection procedures, applicants' level of knowledge and motivation;*
- 4) *opportunities of study contents selection for students (Impl 4) – possibility to select B and C courses;*
- 5) *study course implementation (Impl 5), which is characterised by study course succession and connection, as well as provision of e-courses;*
- 6) *academic staff involvement in study process (Impl 6) – average academic staff load in study programme, their accessibility to students, as well as academic staff cooperation with students;*
- 7) *studies give good basis of theoretical and practical knowledge (Impl 7), including research skills;*
- 8) *studies promote critical thinking (Impl 8);*
- 9) *studies promote development of communication and generally used skills (Impl 9), which includes in itself working skills of written language, presentations, discussions and teamwork, as well as foreign languages, computer programming and organisational skills;*
- 10) *international experience in studies (Impl 10), which is characterised by students' mobility, guest lecturers and academic staff mobility;*



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- 11) last year students' satisfaction with the selected study programme (Impl 11);
 12) students' academic involvement (Impl 12) – attendance of lectures and individual work.

In the research the experts compare the criteria mentioned above in pairs within the group of offer or implementation. Experts evaluate which of the two criteria is more significant regarding the quality of study programme offer or implementation. To evaluate the differences of criteria importance, The Analytic Hierarchy Process (AHP) method provides using *Scale of relative importance*, which allows change word information into numbers.[8] Summarising the results of expert survey and doing the calculations provided in AHP method, each of the criteria is set the relative importance coefficient (see Table 2), which in its turn allows forming unite system of study programme quality assessment.

Table 2

Calculated coefficients of study programme (SP) quality criteria relative importance

	Criteria	Experts – higher education administrators					Experts – students				
		A	B	C	D	E	F	G	H	I	J
Criteria for SP Offer quality	Offer 1	0.053	0.043	0.077	0.083	0.049	0.087	0.028	0.073	0.037	0.048
	Offer 2	0.042	0.066	0.071	0.03	0.035	0.058	0.07	0.053	0.059	0.034
	Offer 3	0.048	0.031	0.065	0.051	0.06	0.038	0.027	0.023	0.03	0.02
	Offer 4	0.035	0.102	0.038	0.047	0.093	0.11	0.042	0.061	0.085	0.061
	Offer 5	0.045	0.147	0.051	0.047	0.038	0.135	0.042	0.035	0.108	0.097
	Offer 6	0.121	0.084	0.074	0.068	0.042	0.161	0.03	0.05	0.087	0.037
	Offer 7	0.257	0.113	0.166	0.198	0.225	0.117	0.033	0.241	0.209	0.147
	Offer 8	0.186	0.03	0.026	0.037	0.067	0.022	0.118	0.013	0.055	0.039
	Offer 9	0.073	0.093	0.139	0.198	0.114	0.126	0.05	0.242	0.105	0.145
	Offer 10	0.067	0.135	0.139	0.086	0.104	0.07	0.075	0.14	0.047	0.14
	Offer 11	0.04	0.111	0.077	0.104	0.094	0.061	0.169	0.043	0.11	0.156
	Offer 12	0.033	0.045	0.077	0.051	0.079	0.015	0.318	0.024	0.068	0.076
	Total (Offer)	1	1	1	1	1	1	1	1	1	
Criteria for SP Implementation quality	Impl 1	0.069	0.039	0.022	0.028	0.181	0.115	0.104	0.054	0.056	0.025
	Impl 2	0.057	0.116	0.024	0.198	0.029	0.032	0.151	0.024	0.061	0.105
	Impl 3	0.014	0.025	0.018	0.032	0.017	0.037	0.198	0.017	0.016	0.022
	Impl 4	0.041	0.023	0.029	0.038	0.133	0.138	0.057	0.157	0.091	0.043
	Impl 5	0.044	0.122	0.094	0.062	0.161	0.158	0.044	0.18	0.118	0.058
	Impl 6	0.187	0.1	0.122	0.024	0.017	0.092	0.085	0.056	0.073	0.049
	Impl 7	0.122	0.104	0.122	0.1	0.066	0.11	0.027	0.095	0.139	0.067
	Impl 8	0.112	0.137	0.122	0.074	0.044	0.081	0.09	0.101	0.146	0.153
	Impl 9	0.074	0.133	0.122	0.08	0.048	0.041	0.072	0.049	0.162	0.072
	Impl 10	0.03	0.051	0.122	0.064	0.085	0.033	0.085	0.031	0.06	0.132
	Impl 11	0.041	0.039	0.145	0.268	0.2	0.131	0.03	0.118	0.017	0.156
	Impl 12	0.209	0.111	0.058	0.032	0.019	0.032	0.057	0.118	0.061	0.118
	Total (Impl)	1	1	1	1	1	1	1	1	1	

Source: calculated by the author



Table 3

The division of criteria in groups according to differences of expert group assessment

Group characteristics	Criteria and their codes	Maximum probability (H _i)
Group 1 – averages of groups do not differ essentially , there is assumed zero hypothesis with maximum probability 80-100%	Support in study process and study environment (<i>Impl 1</i>)	6%
	International experience in studies (<i>Impl 10</i>)	7%
	Students' academic involvement (<i>Impl 12</i>)	13%
Group 2 – averages can not differ with probability 20-80%	SP aims referring national economy (<i>Offer 1</i>)	36%
	SP aims referring research (<i>Offer 2</i>)	51%
	SP aims referring personality development (<i>Offer 4</i>)	26%
	Clearance and accessibility of SP aims (<i>Offer 5</i>)	35%
	Study course offer correspondence to SP aims (<i>Offer 6</i>)	22%
	Study course contents quality (<i>Offer 7</i>)	67%
	SP director's administrative skills (<i>Offer 8</i>)	35%
	Academic staff qualification (<i>Offer 9</i>)	22%
	Academic staff research activity (<i>Offer 10</i>)	47%
	Provision of library resources (<i>Offer 11</i>)	73%
	Material-technical provision of lecturing rooms (<i>Offer 12</i>)	50%
	Dynamics of number of students (<i>Impl 2</i>)	21%
	Quality of applicants (<i>Impl 3</i>)	66%
	Opportunities of study contents selection for students (<i>Impl 4</i>)	70%
	Study course implementation (<i>Impl 5</i>)	25%
	Academic staff involvement in study process (<i>Impl 6</i>)	48%
	Studies give good basis of theoretical and practical knowledge (<i>Impl 7</i>)	53%
	Studies promote critical thinking (<i>Impl 8</i>)	37%
	Studies promote development of communication and generally used skills (<i>Impl 9</i>)	31%
	Last year students' satisfaction with selected SP (<i>Impl 11</i>)	56%
Group 3 – averages differ essentially , there is declined zero hypothesis with probability 0-20% and assumed alternative hypothesis with maximum probability 80-100%	SP aims referring society development (<i>Offer 3</i>)	96%

Source: calculated by the author



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In the research were questioned experts who represent two most important interested side groups in higher education: higher education administrative staff and students. It is important not only to take into consideration the opinion of higher education administrators about study programme quality assessment, who are experienced professionals in this field, but also students. Exactly students are involved in the formation of higher education results, therefore they are the most tightly connected with study programme quality; we can say that they feel it “on their skin”. In the study programme quality criteria assessment there took part 10 experts, half of which are higher education administrators: a representative of Higher Education Board, the heads of University of Latvia (UL) administrative departments and leading staff who are responsible for study quality and programme accreditation. The other half of the experts is students who represent different faculties of UL and are members of UL Student Board and Latvian Student Association. The aim of expert survey is to determine relative importance coefficients for criteria of study programme quality, as well as to detect what in their opinion is the most significant thing in study programme quality. It allows clearing out if the understanding about the main criteria of study programme quality between expert groups is similar or differs essentially.

Before detecting the average relative importance of each criterion, there is done t-test analysis to compare mutually dependent average selections. Its results show if the assessments of expert groups about study programme quality criteria do not differ essentially, which in its turn indicates if the relative importance of study programme quality criteria must be analysed separately by expert groups or together. In the beginning of analysis there is set the zero hypothesis (H_0), that the averages of the groups do not differ essentially, and alternative hypothesis (H_1), that the averages of the groups differ essentially. The results of t-test analysis are shown in Table 3, where study programme assessment criteria are divided into three groups according to the maximum probability with which we can assume the alternative hypothesis that the averages of the groups differ.

Taking into account the results of t-test analysis we can conclude that assessments about study programme quality criteria differ between expert groups. Therefore indicating the coefficient of average relative importance the assessment of both expert groups are evaluated separately.

3. Relative Importance Coefficients for Criteria of Study Programme Quality

Doing statistical analysis calculations using data in Table 2, it was stated high coefficients of variation between coefficients of relative importance of study programme quality criteria. Therefore there are stated expert competence coefficients which are used as weight when calculating coefficients of average relative importance of study programme quality criteria within expert groups. Coefficients of relative significance show which part of study programme offer or implementation quality is stated by the certain criterion, for example, criterion “*Quality of study course contents*” determines almost one fifth (19%) of study programme offer quality (see Table 4).



Table 4

Average relative importance coefficients and ranks for criteria of study programme quality

Criteria codes	Administrat. Aver. relat. sign. coef.	Students aver. relat. sign. coef.	Rank (admin. value)	Rank (students' assess)	Rank difference	Average calc. rank	
	(1)	(2)	(3)	(4)	(5)	(6)	
<i>SP offer quality criteria</i>	<i>Offer 1</i>	0.07	0.04	6	11	5	8.5
	<i>Offer 2</i>	0.06	0.06	8.5	9	0.5	8.75
	<i>Offer 3</i>	0.06	0.03	8.5	12	3.5	10.25
	<i>Offer 4</i>	0.05	0.08	11	6	5	8.5
	<i>Offer 5</i>	0.05	0.10	11	4	7	7.5
	<i>Offer 6</i>	0.07	0.08	6	6	0	6
	<i>Offer 7</i>	0.19	0.19	1	1	0	1
	<i>Offer 8</i>	0.05	0.05	11	10	1	10.5
	<i>Offer 9</i>	0.14	0.12	2	2	0	2
	<i>Offer 10</i>	0.12	0.07	3	8	5	5.5
	<i>Offer 11</i>	0.08	0.11	4	3	1	3.5
	<i>Offer 12</i>	0.07	0.08	6	6	0	6
<i>SP implementation quality criteria</i>	<i>Impl 1</i>	0.05	0.06	10	9.5	0.5	9.75
	<i>Impl 2</i>	0.07	0.07	8.5	7	1.5	7.75
	<i>Impl 3</i>	0.02	0.03	12	12	0	12
	<i>Impl 4</i>	0.04	0.09	11	5	6	8
	<i>Impl 5</i>	0.09	0.12	6.5	3.5	3	5
	<i>Impl 6</i>	0.10	0.07	4	7	3	5.5
	<i>Impl 7</i>	0.11	0.12	2	3.5	1.5	2.75
	<i>Impl 8</i>	0.10	0.14	4	1	3	2.5
	<i>Impl 9</i>	0.10	0.13	4	2	2	3
	<i>Impl 10</i>	0.09	0.06	6.5	9.5	3	8
	<i>Impl 11</i>	0.16	0.05	1	11	10	6
	<i>Impl 12</i>	0.07	0.07	8.5	7	1.5	7.75

Source: author's calculations

Looking at the calculated coefficients of average relative importance of study programme quality criteria (see Table 4), we can state that their amplitude is from 0.02 to 0.19. To detect more significantly the criteria which have been assessed by experts as more important and less important in study programme quality, it should be useful to range the criteria according to the calculated average relative coefficients of importance within the group and calculate the average rank for each quality assessment criterion. Using the ranks there are also stated the study programme quality criteria, the average assessment of which differs essentially by expert groups, which in its turn indicates different understanding between the interested sides in the higher education.



Average Relative Importance Coefficients for Criteria of Study Programme Offer Quality

Looking at ranks shown in Table 4 assigned to study programme offer quality criteria, we can see that both expert groups have assessed as the most important the following criteria: „Quality of study course contents” (Offer 7) and „Academic staff qualification” (Offer 9). The average relative importance coefficients of these criteria are correspondingly **0.19** and **0.14-0.12** (see Figure 1), that in average makes together one third (32%) of study programme offer quality assessment. As important there have been assessed the criteria „Provision of library resources” (Offer 11) and „Research activities of academic staff” (Offer 10), for them average relative importance coefficients are correspondingly **0.11-0.08** and **0.12-0.07**, that in average makes together one fifth (19%) of study programme offer quality assessment. So we can say that the four criteria mentioned above determine one half of study programme offer quality assessment. Therefore a qualitative study programme offer is mainly characterised by qualitative study courses and correctly selected academic staff, as well as the provision of library resources is significant.

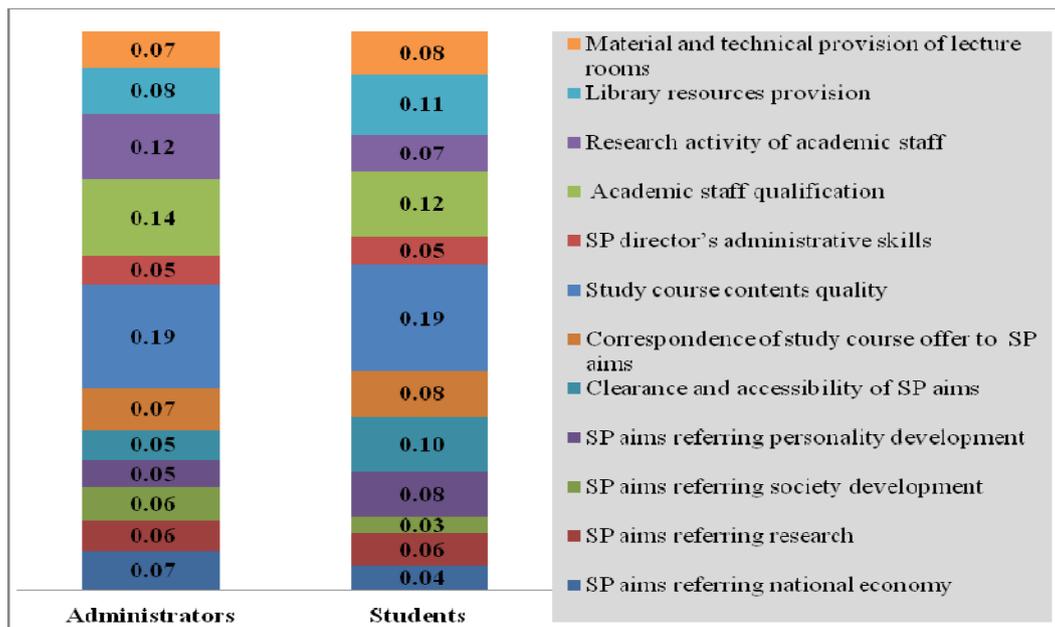


Figure 1. The average relative importance coefficients for criteria of SP offer quality

Source: created by the author

As the next most important one there have been selected the criteria “Correspondence of study course offer to study programme aims” (Offer 6) and „Material and technical provision of lecture rooms (Offer 12), the average relative importance coefficients of which are from **0.08 to 0.07**, which in average makes together 15% of offer quality assessment. In their turn the other six study programme offer quality criteria have been evaluated with lower importance



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coefficients. The lowest average rank has got the criterion “*SP director’s administrative skills*” (Offer 8), the relative importance of which makes 5% of the offer quality. The average relative importance coefficients of the other criteria: “*SP aims referring national economy*” (Offer 1), “*SP aims referring research*” (Offer 2), “*SP aims referring society development*” (Offer 3), “*SP aims referring personality development*” (Offer 4) and “*Clearance and accessibility of SP aims*” (Offer 5) vary from **0.03-0.10**, and these criteria have got one of the two lowest assessments from one of the experts’ groups, which got correspondingly Rank 11 or 12.

Comparing the ranks assigned to the criteria between experts’ groups (see Table 4, Column 5), we can see that there are differences in rank division for each criteria. The sharpest differences between the ranks has the criterion “*Clearance and accessibility of SP aims*” (Offer 5), highest education administrators give Rank 11 to this criterion, but students Rank 4; also, the average relative importance coefficients are correspondingly **0.05** and **0.10**. Perhaps the administrators consider that clear and understandable aims do not affect the quality, but the students evaluate it as one of the quality features. Assessments of experts’ groups also differ about the criterion “*Academic staff research activity*” (Offer 10), where students give Rank 8 to this criterion, but administrators consider it as the third most important criterion in study programme offer quality, also the average relative importance coefficients are correspondingly **0.07** and **0.12**. Perhaps the administrators consider the research activity as the precondition to work out and manage a qualitative study course, in their turn students most probably do not connect the research activity with the academic staff knowledge development, but rather than some additional load which, as their experience shows, takes away time from the implementation of study course. Also, there are different experts’ assessments for criteria “*SP aims referring national economy*” (Offer 1) and “*SP aims referring personality development*” (Offer 4), where the calculated average relative importance coefficient differs by 3% points. It seems understandable that students evaluate study programme aims referring personality development higher than aims referring national economy development, but higher education administrators evaluate the significance of these criteria vice versa. In this case both expert groups evaluate the quality as usefulness; however, students evaluate it as usefulness for themselves, but administrators – as usefulness to the society on the whole.

Average Relative Importance Coefficients for Criteria of Study Programme Implementation Quality

Looking at ranks assigned to study programme implementation quality criteria, we can see that experts have assessed as the most important the following criteria: “*Studies promote critical thinking*” (Impl 8), “*Studies give good basis of theoretical and practical knowledge*” (Impl 7) and “*Studies promote development of communicative and generally used skills*” (Impl 9). The average relative importance coefficients are correspondingly **0.14-0.12**, **0.12-0.11** and **0.13-0.10** (see Figure 2), which in average makes together one third (35%) of study programme implementation quality assessment. Therefore experts of both groups admit that the most important thing in qualitative implementation of a study programme is not only to give good basis of theoretical and practical knowledge, but also promote critical thinking and the development of communicative and generally used skills.

As important there are also evaluated the criteria “*Study course implementation*” (Impl 5), “*Academic staff involvement in study process*” (Impl 6) and “*Last year students’ satisfaction with*



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the selected SP” (Impl 11), the average relative importance coefficients are correspondingly **0.12-0.09**, **0.10-0.07** and **0.16-0.05**, which together makes almost another one third (29.5%) of study programme implementation quality assessment. According to this we can say that the six criteria mentioned above determine two thirds (64.5%) of study programme implementation quality assessment. It is interesting that very big differences can be seen between expert group assessments about the criterion “Last year students’ satisfaction with the selected SP” – higher education administrators evaluate it as the most important and essential criterion of study programme implementation (assigned Rank 1), but students have evaluated it the unimportant (assigned Rank 11 of 12). Perhaps we can explain the high administrators’ assessment of this criterion by their understanding of a student as a client of higher education, so students’ satisfaction is evaluated as the most important criterion in programme implementation quality. What is more, students’ low assessment of this criterion can be explained by the lack of their confidence about the ability to evaluate study programme implementation quality objectively.

As partly significant study programme implementation quality criteria experts evaluate “International experience in studies” (Impl 10), “Dynamics of number of students” (Impl 2), “Students’ academic involvement” (Impl 12) and “Opportunities of study course selection for students” (Impl 4). The average relative importance coefficients are correspondingly **0.09-0.06**, **0.07**, **0.07** and **0.09-0.04**, which in average makes together a little less than one third (28%) of study programme implementation quality assessment. Also as less important criteria experts have evaluated “Support in study process and study environment” (Impl 1) and “Quality of applicants” (Impl 3), the average relative importance coefficients are correspondingly **0.06-0.05** and **0.03-0.02**.

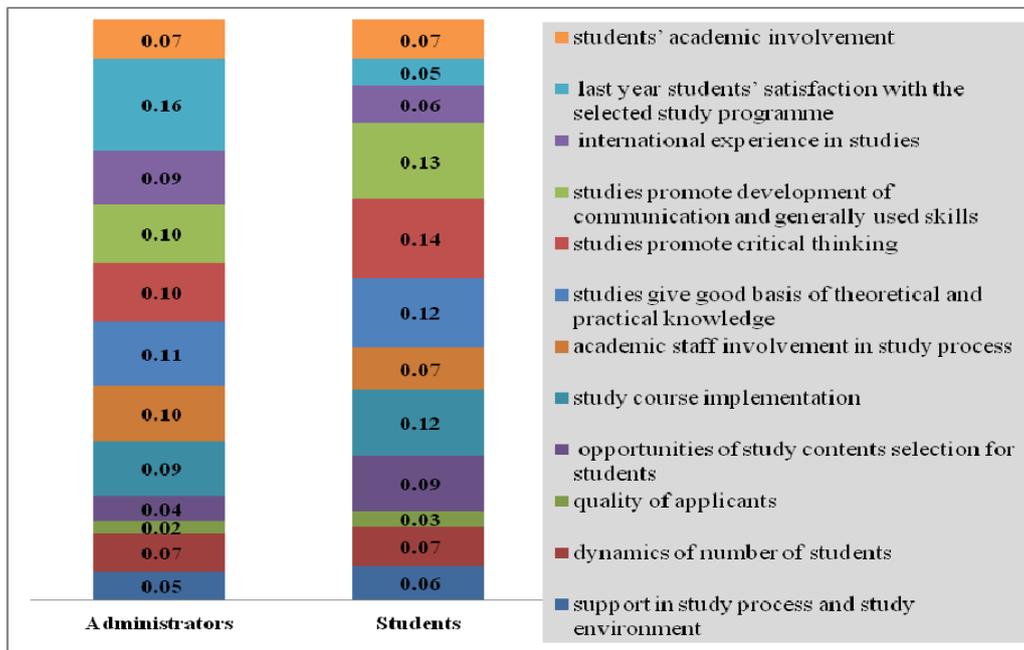


Figure 2. The average relative importance coefficients for criteria of SP implementation quality

Source: created by the author



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Comparing the assessments between expert groups about programme implementation quality criteria, we can see a lot more essential differences among ranks, for example, in the criterion “*Last year students’ satisfaction of the selected SP*”. The second most different assessment is in the criterion “*Study course implementation*”, which is evaluated by administrators as comparatively unimportant (assigned Rank 11 of 12), but students evaluate it as the fifth most important criterion in study programme implementation quality. These differences can be explained by the different understandings between expert groups about study programme implementation quality.

The differences between expert group assessments testify of the necessity to form the dialogue between the interested sides in higher education to create the unite understanding about the education quality and to detect what is understood by a qualitative study programme. Therefore everyone who is involved in higher education system can have united understanding about higher education quality, and everyone is responsible for the quality achievement and maintenance.

Conclusions

As a result of the research we can make the following conclusions:

1. Study programme offer quality is mainly characterised by qualitatively worked out study courses which correspond the study programme aims and correctly selected academic staff, which not only have necessary qualifications, but also actively continue to develop their knowledge and skills. Also important is the provision of library resources and material and technical provision in lecture rooms.
2. The most important thing in study programme implementation quality is not only to give good basis of theoretical and practical knowledge, but also to promote critical thinking and the development of communicative and generally used skills, which is not possible without qualitative study course contents and corresponding academic staff. That will promote students’ satisfaction with the selected study programme; as a result of that there will be promoted the feedback of higher education with the other interested sides including the society on the whole.
3. Students in their assessments about study programme offer and implementation quality criteria importance are guided by their intuitive understanding and their actual needs referring higher education. The most often is the satisfaction of these needs to detect students’ satisfaction of study programme quality, therefore higher education administrators should realise and take into account students’ actual needs when creating programmes and organising study process in higher education institution. At the same time students do not really understand their main role in the provision of study programme quality.
4. Higher education administrators when evaluating study programme offer and implementation quality criteria, base on the acquired knowledge and experience of the higher education quality. However, administrators’ knowledge about students’ needs is not complete, because nowadays a student’s needs are very variable.
5. The two involved expert groups’ assessments about study programme offer and implementation quality differ in several criteria importance. It can be explained by the



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different understanding and knowledge of these two expert groups about the education quality, as well as insufficient research of students' needs and their realisation. In its turn that testifies of the necessity to form the dialogue between the interested sides in higher education to form a unite understanding about the quality of higher education and study programmes.

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DEVELOPMENT INSTITUTIONS: ROLE IN RUSSIAN ECONOMICS MODERNIZATION

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Abstract

Russian economics modernization encounters several problems. First, financial, industrial-technological and cadre infrastructures are undeveloped. This impedes the formation of steady innovation chains “basic research – the applied scientific research and experimental-design developments – the commercial technologies”. Secondly, the investment needs of the economy considerably exceed the volume of the long-term borrowed resources, which needs domestic particular financial sector. Thirdly, the Russian producers outgoing on the international markets are situated in the unequal competitory conditions in comparison with the exporters from other countries.

The formation of the effective system of development institutions is a way to solve these problems. Therefore state undertook decisive steps toward the formation of this system in recent years. Development institution is a specialized state (quasi-state) organization (corporation), created for the eliminating “market failures” in a concrete sphere, which restrain the economic and social development of the country.

The development institutions meet four basic challenges:

- overcoming failures of market in the sphere of innovations (“quasi-innovation”);
- elimination of institutional failures (forming of the absent, but necessary segments of market);
- development of economic (power engineering, transport, other communications) and social infrastructure;
- equalizing of the essential regional unbalances of development.

The development institutions in Russia have some shortcomings. The system of the development institutions created up to the present moment in Russia is enormous and cumbersome. Majorities of existing institutions possess the extremely insignificant scales of activity. Their ineffectiveness and opacity is one additional drawback of domestic development institutions. Furthermore, for the development institutions in Russia the absence of coordination is typical. In spite of variety of development institutions in the country, the economy is still developing due to the export of raw material, and situation is not assembled to change. Practically all development institutions existing in Russia are only “money bags”, which distribute the financial resources between “priority” projects.



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The process of Russian economic modernization is accompanied by different problems. First, financial, industrial-technological and cadre infrastructures are on the undeveloped state. This impedes the formation of the steady innovation chains “basic research – the applied scientific research and experimental-design developments – the commercial technologies”. Consequently, the process of the modernization of Russian economy and reproduction of its scientific innovation potential is hindered.

Secondly, the investment needs of the economy considerably exceed the volume of the long-term borrowed resources, which domestic financial sector can provide. The share of long-term credits (more than three years) in the total volume of the loans, given out to enterprises by the Russian banks (except Sberbank), is only 15%. The share of the credits, drawn on the domestic market for financing the investments to capital stock is less than 9% [1].

Thirdly, the Russian producers entering the international markets are in the unequal competitive conditions in comparison with the exporters from the other countries. Delivery conditions for Russian highly technological production for the outside markets do not often correspond to the taken standards because of the limited possibilities of the assignment of export crediting and insurance, undeveloped post-sale service system, low adaptation of production to the requirements of concrete customer and others.

The formation of the effective system of the development institutions is necessary to solve these problems. Decisive steps toward the formation of this system are made in Russia in recent years.

Development institution is a specialized state (quasi-state) organization (corporation), created for the eliminating “market failures” in a concrete sphere, which restrains the economic and social development of the country.

The very idea of such institutes is based on the confidence, that there are specific segments in national economy, which are worthy development to the larger degree than others, – either because they are key or because they not developed and they must be pulled, that, in the end, it leads to the acceleration of Gross Domestic Product (GDP) growth. Development institutions make it possible to redistribute the means of the society in favor of “key segments”.

Such institutes are claimed both on the developed and developing markets. They do not have universal form and united status – the special tasks, laid by governments for these institutes; frequently make it necessary to assume special standards and laws for them. This is caused by the fact that many functions, carried out by the development institutes (and this is just their common feature), it is difficult to implement on a “purely market” conditions.

This is due to the fact that many of the functions carried out by institutes of development (and this is just a common feature), it is difficult to implement on a “purely market” conditions.

These institutions may promote infrastructure development, or they may work as catalysts of innovations. In most cases they are based on private-public partnership principles. There are two main groups of development institutions: financial and non-financial ones.

Financial development institutions provide co-financing of the projects necessary for national economy but unattractive for private business. The state participation in such projects through the development institutions reduces the risks and increases the return for private business, or at least it gives a positive signal for private business. These are development banks, development funds, export insurance agencies etc.



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Non-financial development institutions do not provide direct financing to business, but they develop the infrastructure necessary for it, – the material one as well as the financial, informational and consulting infrastructure. These are industrial parks, techno-parks, business incubators, special economic zones etc.

The development institutions facilitate the resolution of at least four basic problems:

- overcoming failures of market in the sphere of innovations (“quasi-innovation”) [2];
- elimination of institutional failures (forming of the absent, but necessary segments of market) [3];
- development of economic (power engineering, transport, other communications) and social infrastructure;
- equalizing of the essential regional unbalances of development.

The development institutions are being formed in Russia since the 1990’s. The main period of their formation is approximately 2006-2008. There is a considerable quantity of diverse development institutions in Russia now (see Table 1).

Some of them have already a certain experience of functioning while others have been created recently and they only start working. Many of them possess considerable capital amounting to billions of dollars. They operate in different spheres, such as promotion of innovations, export support, venture business development, promotion of housing mortgage lending, small business support, financing of agriculture etc. Most of them have been created by direct order of the government, and their capitals were provided by Russian Federation (sometimes also from regional and municipal budgets) [4].

Table 1

Development Institutes in Russia

Financial development institutions	Non-financial development institutions
<ul style="list-style-type: none">• The Bank for Development and Foreign Economic Affairs (Vnesheconombank),• The Investment Fund of Russian Federation,• The Russian Venture Company,• The Agency for Housing Mortgage Lending,• The Russian Agricultural Bank,• The Russian State Agricultural Leasing Company (“Rosagroleasing”),• Support institutes of small and mid-sized business (regional venture funds, guarantee funds, funds of direct investments)	<ul style="list-style-type: none">• The Russian Corporation of Nanotechnologies,• The Russian Investment Fund of Information and Communication Technologies,• The Support Fund for the Reform of the Housing and Utilities Sector,• Techno parks, industrial parks, business incubators,• Special economic zones, etc.

Today in our country “three-storied” structure of the development institutions is formed: the federal level (Vnesheconombank, the Agency for Housing Mortgage Lending, the Fund for the assistance to reformation of housing and utilities economy, the Fund for the assistance to development of the home construction activity), the regional departments of these structures and the regional institutes of development. The predominant role belongs to the Federal institutions, the share of which makes up 70%. [5]



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To the beginning of 2010 total capital of the Russian development institutions was about 1.2 trln. rub. (or about 3% of GDP in 2009) [6]. The operational system includes the organizations, focused on the support of the small business (Russian Development Bank, the funds of the supporting of the small and mid-sized business), the stimulation of export (Roseksimbank) and home construction activity (the Agency for Housing Mortgage Lending), the development of advanced technologies (Rosnano, the Russian Venture Corporation), and also international investment collaboration (Eurasian Development Bank).

The Russian development institutes use diverse mechanisms of the realization of their tasks: the two-level financing model, the assignment of state guarantees and guarantees, insurance, consultation, Grants, participation in the developments. The existing capitalization of the Russian development institutes for the efficient influence on the structure of the economy must be brought to 5-6% GDP, and the distribution of means must be determined by the effectiveness of concrete institute in each case.

Despite the still small volume of activity, Russian Development Bank and the Agency for Housing Mortgage Lending as a whole effectively carry out the tasks assigned to them. At the same time the return of some major projects (Rosnano, the Russian Venture Corporation) is practically imperceptible on scales of the economics. To improve the quality of the system of the development institutes it is necessary to enlarge considerably the scales of the activity of the more effective institutes (including due to the redistribution of the part of the resources), to increase transparency and effectiveness of decision making, to simplify the principles of the work of the development institutes. Moreover it is necessary, in my mind, to fix the coordination of their activity both on the regional and at the federal levels.

Today the majorities of the development institutes in Russian Federation use predominantly financial (credit) mechanisms for the realization of their functions. Russia, following the experience of the developed countries, emphasis the cooperation of the development institutes with the credit institutes (banks, leasing and factoring companies, micro-financial organizations). Similar mechanisms may solve two significant problems simultaneously: first, the stimulation of crediting and the guarantee of financial institutes with long-term liabilities, i.e., second, the stabilization of financial sector.

The experience of Russian Development Bank and the Agency for Housing Mortgage Lending shows that long-term re-financing of the given out credits, augmented by limitations to the use of the means given, is an efficient tool of the stimulation of the credit expansion of banks. Thus, the Agency for Housing Mortgage Lending within the sufficiently short times was possible practically from zero to form in Russia the valuable market for the mortgage underwriting. The two-level re-financing model can be successfully used in other spheres also, including within the framework of the modernization of Russian economics.

In my opinion, the guaranty funds became the effective tool of the stimulation of crediting under the conditions of budget deficit. The assignment of the state guarantees through the system of the guaranty funds makes it possible to divide the risks of crediting between the banks and the state, and also has multiplicative effect, i.e., to each ruble in the guarantee it is possible to give out 1.5-2 rubles in the credits. This mechanism may be very effective for stimulating the crediting of most “problematic” segments, in particular startups [7] and long-term investment projects, without the essential additional expenditures of budget. In Russia today act already 78 organizations, which give guarantees for the credits to the subjects of small and mid-sized business.



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The insurance of export credits together with the assignment to the exporters of guarantees and credits is the efficient tool to the stimulation of national export. Today in Russia these functions are allotted for Vnesheconombank (through Roseksimbank); however, its role in this sphere remains insignificant. In 2005-2009 years Roseksimbankom were given less than 1 bln. dollars of state guarantees, and credit briefcase to the beginning 2011 year composed only 349 bln. rubles [8]. Therefore, Vnesheconombank plans to increase export support from 26 bln. rubles at the beginning of 2010 to 90 bln. rubles by January 2016, and increase the credit portfolio – up to 850 bln. rubles [9]. The more essential volumes of state support are necessary for structural reconstruction of Russian export. Despite the limited number of branches is included in the sphere of the interests of institute, in the case of the active development of this direction is already over the intermediate-term perspective possible the considerable positive effect – diversification of export.

The expansion of the scales of the activity of the development institutes offers new possibilities for participants at the market and ensures financing the most problematic spheres. In the middle of 2010 Russian Development Bank started the program of financing the innovation and modernization projects of the small and mid-sized business in the production sector of economics and in the sphere of modern technologies. The volume of financing according to this program can reach 150 bln. rubles to one project, and the period of crediting is increased of up to 5-7 years.

At the beginning of 2011 the volume of financial support for small and mid-sized businesses at the expense of the Development Bank was 121 bln. rubles and is planned to increase it up to 150 bln. rubles to 01.01.2016 [9], however, the potential of this program is sufficiently high since it gives the real possibility to small and mid-sized enterprises to obtain on the advantageous conditions long-term means for the renovation of the stock capital and improvement in the quality of production.

In this regard Vnesheconombank sets the following strategic goals:

- participation in the capital of companies and banks, promoting the realization of investment projects should be not less than 280 bln. rubles;
- to increase the volume of crediting of innovation projects up to 170 bln. rubles;
- the share of credits for financing of innovation projects in the volume of credit portfolio of the development bank should be 20% [9].

From the beginning of 2010 the Agency for Housing Mortgage Lending launched the program “Stimulus” for to stimulate the crediting of the economy-class dwelling building and to increase the demand for the mortgage in the appropriate regions of the country. This program makes possible for housebuilders to obtain means for the completion of the unfinished units building, ensures the timely recovery of credits to banks, and population it helps to purchase dwelling already at the stage of building on the obtainable prices and the conditions of crediting.

The significance of the development institutes is determined not only by the volumes of support, but also by the effectiveness of the financed projects. In 2009 the Agency for Housing Mortgage Lending re-financed about 20% of entire volume of the given by banks mortgages, while the share of the Russian Development Bank credits within the framework of the total volume of the market for the crediting of the small and mid-sized business it doesn't exceed 1%. Nevertheless, state support is directed precisely to “narrow” places. At the beginning of 2011, 92% of Russian Development Bank means are placed for the period more than 3 years, and industry occupies the significant share – 49.4% [9]. Moreover, large credits accounts for 50%, it



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allows to suppose the investment nature of financing [10]. Thus, state resources are sent to those segments of market, which small and mid-sized banks, first of all in the regions, can't be used because of the weak resource base diversification.

The development of the guaranty funds system is restrained by their weak geographical diversification, insufficient capitalization and absence of the unification of activity. Today guaranty funds are present even not in all federal regions, but within the framework regions they are concentrated in the federal centers mainly. This limits access to financing of the significant number of enterprises, which fulfill activity in the distant regions. Namely in such regions the subjects of the small and mid-sized business usually experience the greatest difficulties in obtaining the bank credits.

The development institutions in Russia have some shortcomings. The system of the development institutions created up to the present moment in Russia is enormous and cumbersome, – in any case, if we judge to the number of created organizations. In the country there is the complete set of the development institutions, what are only in the world. But it is still very difficult to say about the effect from them: either they are recently created or work ineffectively, and most likely, everything taken together.

Most of them possess the extremely insignificant scales of activity. Many specialists note that the means, which are been at their disposal, are negligible (see table [11]). The Ministry of Economic Development plans to increase the capitalization of the institutes – in particular, to introduce additionally 15-20 mil. rubles in order to increase The Russian Venture Company capital, to double capital of The Russian Investment Fund of Information and Communication Technologies, and to also increase the budget of the fund for assistance to the development of the small forms of enterprise in the science in 2011 from 1.4 to 5 mil. rubles. But these sums will not lead situation to the substantial change. The noted macro-deficit of the sovereign finances is reflected in the resource base of all Russian development institutes. Their volume simply cannot have a significant effect on economic development.

Table 2

World and Russian Development Institutions in 2009

Development Institution	Country	Assets (bln. doll.)	Shareholders' Equity (bln. doll.)
Germany Credit Reconstruction Bank (KfW Banking Group)	Germany	394	13.1
China Development Bank	China	190.2	12.99
Japan Development Bank	Japan	147.32	15.13
Korea Development Bank	Korea	99	11.79
Brazil National Bank of Economic and Social Development	Brazil	61.78	5.32
Industrial Development Bank	India	13.25	2.64
Export-Import Bank of the United States (Ex-Im Bank)	USA	11.4	0.9
National Development Bank	Mexico	20.93	0.67
Investment Fund of Russian Federation	Russia	2.6	–
Vnesheconombank	Russia	52	8.02



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Their ineffectiveness and opacity is one additional drawback in the domestic development institutions. Complex and opaque procedure of making decision by the selection of the objects of investment and support, the excessive volume of documentation from the candidates, “selectivity” in decision making with the identical input parameters of candidates for the financing – it isn’t the full list of problems.

Thus, many banks note complexity and protracted length in the time of the process of obtaining re-financing from the Agency for Housing Mortgage Lending and Russian Development Bank side, a certain opacity of decision making by these organizations, and also sufficiently stringent requirements to the quality of the allowed by bank – partners credits.

Furthermore, the absence of coordination is typical for the development institutions in Russia. Each institute was created in accordance with it’s own logic, it solved it’s own problems, they were not correlated to the scales with each other and it is not always correlated with the needs of the real economy. However, ideally they should be formed for global and visual all-Russian “design map” with the clear strategic priorities. This will make it possible to avoid the irrational and ineffective arrangement of the objects of infrastructure and business.

In spite of variety of development institutions in the country, the economy is still developed due to the export of raw material, and situation is not assembled to change. Practically all development institutions existing in Russia are “money bags” that distribute the financial resources between “priority” projects. Some institutes distribute the money in the form of credits, others – in the form investments, the third – in the form the non-repayable aids, and in the case of special economic zones – in the form of services on the creation of infrastructure.

Furthermore, the state of technological base in Russia is such, that our industry is not simply capable mass and of qualitatively letting out the developments, which the science gives. There is a weak connection between science and production, which is reflected in the activity of the development institutes.

Conclusions:

1. By now basic financial and non-financial development institutions been established or are in the process of forming in Russia. They allowing to solve the tasks of support of the innovation process and the development of high-tech branches of the economy.
2. Our analysis of the Russian development institutes shows: the situation is far from being satisfied. A certain number of financial development institutions exists, but they are either formal or lacks money. And as the very development policy, as financial resources for the implementation of this policy, are absent.
3. Besides, non-financial development institutions are underdeveloped practically. The government must pay more attention to these institutes and take into account the world experience.
4. It is necessary to enhance the role of development institutions that should:
 - act as co-organizers and key sources of financing of large projects, aimed at achieving breakthrough results in strategically important areas;
 - form the infrastructure providing free access to the priority areas of the economy to the necessary financial, innovative and informational resources.



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SIDE EFFECTS OF CORPORATE CULTURE IN TECHNICAL SERVICES FIRMS ON THE EMPLOYEE TYPOLOGY

– Leadership Goes Beyond Management –

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Abstract

This article is about people and their interaction with corporate culture in technical service enterprises which are in our technical environment of an essence. These enterprises should guarantee a consistent function of all technical processes in firms, private households and the public sector. For example call centers ensure that the products from the Telecom deliver the use they are supposed to.

In times of the growing globalization and the change to knowledge based services professions together with a change of social values, companies and their employees have to face different demands than before. The pressure on employees rises, because they need higher qualifications, always needing to learn and adapt to the quickly changing structures. This creates in some cases a very unhealthy working environment for some of our colleagues. This is where leadership goes beyond management. Leadership, away from analyzing figures and structural measures, means to create an environment, where working atmosphere turns from degenerative pressure to and healthy and competitive working atmosphere although the demands are very high. One honourable professor said: “Successful leadership is maximizing the talent and resources available within the team to meet common goals that align with the team and their resources.” This is the demand for the following discussion. The style of leadership and corporate culture are a very important instrument in the changing business structure of technical services and its transformation process. A different style in leadership can employees guide through this transformation process but it can on the other hand evoke frustration. This permanent frustration can lead to occupational diseases as there are for example physiological symptoms as lung and skin diseases or even worse mental diseases as the well known burn-out syndrome.

In technical based services firms, management is mainly focused on the zero tolerance solution of a technical problem, as this is the main mission of these services firms. But, employees are humans and will not be able to function without any tolerance. Negative side effects can be varying as mentioned before from lack of motivation to the beginning of a serious



disease. What is meant by saying, leadership goes beyond management. As we can state, management is fulfils the task of management controls or allocates people and resources in a group according to principles or values that have already been established. Leadership is setting a new direction or vision for a group that they follow, etc.: a leader is the spearhead for that new direction. On the focus of a healthy working atmosphere where efficiency and effectiveness are from an essence, we can categorize 4 dimensions to obtain this aim.

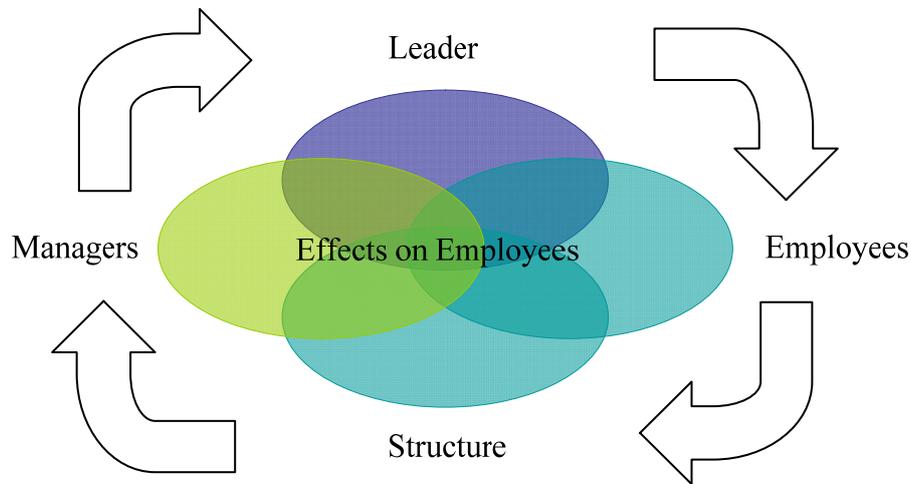


Figure 1. Impact from the four dimensions to create healthy working atmosphere

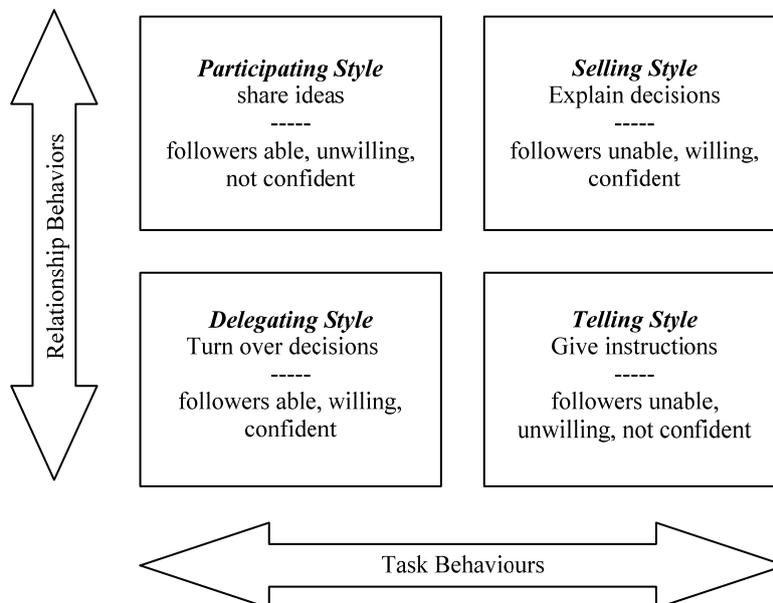


Figure 2. Hersey-Blanchard situational leadership model



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As there are a lot of definitions of leadership and management, the main question is to find out, how to integrate leadership effective. In the **first dimension** this question arises, because leadership is not an impersonal tool which can be applied on any situation and any employee. Management and management tools can be integrated impersonal, depending on hard facts as figures, technical processes and material resources or to control organizations. Leadership is build on human resources and immaterial resources as there are effective teams, visions, relationships between employees and their personal profile. This question becomes even more interesting when we raise the thesis that not every type of employee reacts in the same way to a certain style of leadership or is there an important rule while applying a specific style of leadership – one to analyze the employee topology first, one to analyze the appropriate leadership style.

In contrast to Fiedler's contingency leadership model and its underlying assumption that leadership style is hard to change, the Hersey-Blanchard situational leadership model suggests that successful leaders do adjust their styles. But which leadership style is appropriate for which employee type. Employees can be categorized in 4 different main types. This model, people performance potential model of profiling people points out the different behavior schemes of people.

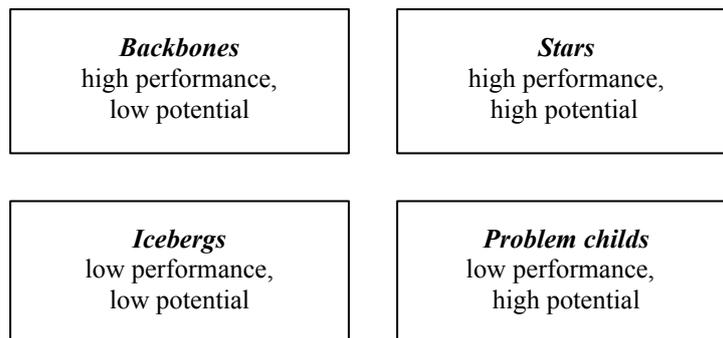


Figure 3. People Performance Potential Model

So does every type of employee react in the same negative situation derived from bad corporate culture and inappropriate leadership style like his college, his supervisor or the whole team? Is there a correlation between the type of employee and the style of leadership which you won't discover in the management level? And how can this correlation be described? For example, if the management says, that the working days from now on end at 8 pm, does every employee starts to rebel against it, as the longer working times are a negative side effect of the transformation process or is it at first the icebergs and problem child who react in a sensitive way. But on the other hand are these two the first, who are likely to get ill from this new directive or is it the stars and backbones that always get the short end of the stick. The style of leadership can make a difference, what type of employee is more likely to be affected from the negative side effects by corporate culture and management and compensates this negative side effect. If the style of leadership is appropriate to the management situation, we can let our working day end at 8 pm without facing unmotivated fellows and in the worst case upcoming



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occupational diseases. To bring the formulated problem statement to a success, I need to describe, what types of management issues in technical based services firms exist and what positive and negative side effects derivates from it. In the mid 1900s, psychosomatic medicine began to place importance on identifying specific psychological characteristics that might be considered as authentic risk factors in relation to diseases. From this research very interesting data emerged regarding the relationship between the personality and tolerance towards stress. In particular, with reference to the ways in which people cope with stress, it was found convenient to postulate the existence of two separate personality types characterized by differing sets of behavior patterns known as Type A or Type B behavior (Friedman and Rosenman, 1959).

Individuals belonging to the Type-A group are those more exposed to stress and present a higher chance of suffering from a physical or mental disorder on account of the pressure of stressful events. For example, Type-A people are very vulnerable with respect to cardiovascular disease (heart attack, stroke, hypertension etc.). Those in the Type-B category on the other hand reveal a greater capacity to cope with potentially stressful situations, consequently reducing their risk of becoming ill. The difference between the two types does not depend on the fact they present two different and well-defined personality structures but rather on the way in which they organize their responses to stressful situations. Type A individuals also suffer to a higher degree from work stress. The pressures of work, deadlines, being overburdened with professional activities, conflicts with colleagues and duties or tasks that are difficult to cope with may in fact have a profound effect on the way in which a person perceives and considers his or her work. Feeling under great pressure is a negative outcome, while feeling challenged and feeling capable of responding to such challenges represents a positive result. In other words, the impact of work stressors (see previous page) and one's personal response are modulated by the way in which an individual perceives stress factors. It is not exactly an easy thing to judge what impact stress may have in a professional or occupational context; however some estimates suggest that about half of the work days lost in the United States on account of absenteeism can be linked to the effects of stress (Elkin and Rosch, 1990). The term "mobbing" was coined in the early 1970s by the ethnologist Konrad Lorenz to describe a behavior typical of certain animal species that may form a group and surround and noisily attack an animal so as to expel it from the herd. Two types of mobbing occur in the workplace: hierarchical mobbing and environmental mobbing. In the first case, the abuse is perpetrated by individuals that hold a position of superiority over the victim, who is forced to carry out humiliating tasks and duties. In the second case, the victim's colleagues themselves will isolate the individual and openly deprive him or her of ordinary forms of collaboration, the customary dialogue and any kind of respect.

The practice of mobbing consists in vexing a subordinate work colleague or employee by means of a variety of methods of psychological and physical coercion. For example, taking away gratifying work to give it to colleagues or through some form of disqualification of a worker's contribution, which would be reduced to such boring duties as preparing coffee or doing the photocopying or in any case carrying out very dull tasks requiring practically no decisional autonomy. Another widespread practice is that of reprimanding and complaints, expressed both privately and in public, following what would be normally considered as insignificant errors. The mobbing phenomenon can be identified in situations where workers have been deliberately provided with poor-quality equipment or computers and printers that continuously break down, uncomfortable furniture and where they have to spend time in poorly-



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lit environments. In such cases it will often occur that no form of technical assistance is available. In other cases, if a worker stays at home on account of illness, company managers or owners will make sure they are visited by public officials or others invested with the power to check up on and monitor the authenticity of their employees' claims. When the victim returns to work, he may do so only to find that his desk has been cleared away or even removed and his computer has been disconnected from the company network.

But not only the leadership and management issues prohibit a healthy and sustainable working atmosphere. The **second dimension**, grown structures within the enterprise create a situation, in which managers and leaders cannot react as they are supposed to, because these structures are hard to change in a short period of time. For example:

- Excessive noise, which makes it much more difficult to concentrate and communicate with one's colleagues.
- Being overburdened with professional duties, i.e., a period of work exceeding 40 hours per week.
- Lack of time that would be normally required to carry out a task. Having to consequently work quickly and not very precisely.
- Little variety in one's occupational activities. Always performing the same duties.
- The monotony of one's professional activities. Duties are carried out mechanically without real participation or interest.
- Insufficient or total absence of recognition or rewards for good performance.
- The absence of any power of discretion or control. When it is not possible to control one's activities directly and there is no chance to perform them in the way one would really desire to.
- Too much responsibility.
- An ambiguous role. The lack of precise information regarding one's professional duties or unpredictable consequences and outcomes in relation to the tasks performed.
- Conflicts with colleagues or one's superiors. A lack of agreement with work colleagues about work procedures and interferences on the part of others in one's activities.
- A lack of satisfaction and no personal achievement. For example, when one cannot be sure of the continuity of one's employment or of the possibility of professional advancement or when we find ourselves in situations in which it is not possible to express our talents, skills and capacities.
- Being the object of prejudice, threats and vexation. Situations that lead to what is often defined as mobbing.

The **third dimension** is the employee itself. If the leadership, the management, the structures do not fail, the employee might be the issue. An engaged employee is the one who:

- Is enthusiastic and is inspired by his/her work;
- Is committed and is fascinated by his/her work;
- Cares about the future of the organization;
- Shares a strong emotional bond with the organization;
- Is loyal to the organization and the customers;
- Makes more money for the organization by putting in his 100% efforts;
- Is productive, ethical, accountable and dependable.



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According to a study, the percentage of employees in an organization who are actively engaged, not engaged and actively disengaged in their jobs are 30%, 55%, 15% respectively. Employee Engagement Levels in an Average Organization. Engaged employees need less focus and attention from managers as they know their duties and perform their tasks efficiently. They set their aim and meet the expectations. But sometimes, due to some reasons, it hardly takes time for engaged employees to turn into disengaged employees. At this point of time we need to identify the symptoms of budding employee disengagement and take preventive measures to limit it from growing further. This problem can be solved by having a conversation with the employee and discussing the problem that the employee is facing. The management should be put in correlation to the above mentioned people performance potential model and the employee engagement. The backbones do have a lot of acknowledge effort and contribution. They can be utilized as coaches and mentors. The appropriate style of leadership would focus to look for each person's hidden high potential, undiscovered passions and offer new challenges and responsibilities as appropriate, so these people too can be stars, to any extent they are comfortable. The stars agree to challenging and stretching work, projects, career development, responsibilities. On the other hand these people are likely to leave. Leaders should offer an appropriate stretching coaching, mentoring and training to explore and encourage leadership and role-model opportunities, to set and raise standards of other staff. The icebergs counsel, build trust and understand issues. They identify hidden potential. Leaders should facilitate more fitting roles, direction, purpose, opportunities, linked with and perhaps dependent on performance improvement. Failing this, assist or enable move out of organization if best for all concerned. The problem child confirms and acknowledges potential. They counsel, build trust and understand issues. To lead this type of employee leadership means to explore and agree ways to utilize and develop identified potential via fitting tasks and responsibilities, linked with and perhaps dependent on performance improvement by exploring attachment to backbone or star mentors and coaches.

To manifest the importance of this discussion we need to look into the newspapers, see it on TV and hear on radio. The shivering news, that another employee of the France Telecom brings his life to an end, in plain view of his or her colleges. As this incident was not the last and 20+ employees did the same, organizational study is the key to hunt the factors down, which caused this sad human tragedy. First the management was blamed. But is it really a question of a management failure or is it the misunderstanding of the physiological dynamics of human behavior – better known as the soft facts. The theoretical background would justify a research on an existing object, for example a technical service enterprise. Where would we begin with the research? Keys to a successful program leadership are the understanding of the role as a leader and the understanding of the work and the types of employees with their characteristics. To understand the role as a leader means to understand the work, to build a team with co-accountability, to develop key staff, to create an enjoyable work environment, to create supportive personnel practices and to put emphasis on quality and customer satisfaction. At the beginning I point out the management principles and compare them to the monthly conducted trend questionnaire by the management because it shows the current mood of the personnel structure. Secondly I will engage an interview of the team colleges to find out the percentage of the different types of employees in relation to the People Potential Profile Model. At this point, my focus will be on the different reaction of the different types of employees on



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the primarily worked out positive and negative side effects of the management principles using the risk assessment. With this data I can analyze the varying impacts of these side effects on the personnel typology. I will stay within the organizational systems level between the Group Level and the Individual Level. My approach will be from the spectator's point of view to assure objectiveness. To collect necessary data I would primarily chose a quantitative research method. To identify the existing types of employees and the styles of leadership we would start with a questionnaire over a 2 week period and distribute the sheets using our interoffice mail and collect them manually from the colleges to check, if something is missing or if there is a misunderstanding. I will be guided most generally by the interpretive perspective, and more specifically by Alvesson's (1996) situational approach. The interpretive perspective places the focus on interpreting the meanings and perspectives of cultural members, and how these meanings are negotiated. I am exploring the meanings the employees have for themselves as individuals as well as they have for the organization, group, and profession of which they are members. In combination with my survey I will be able to reconstruct the current correlation between the soft facts and the hard facts provided by the management principles. The same procedure should be done with the leaders in the enterprise to identify the existing leadership styles. We could additionally use interviews for a more qualitative insight. At this point we will not start with the research, as this would not fit into this discussion. But I will put forward some assumptions which can be verified or falsified by the research. There is a catalogue of ten different styles of leadership.

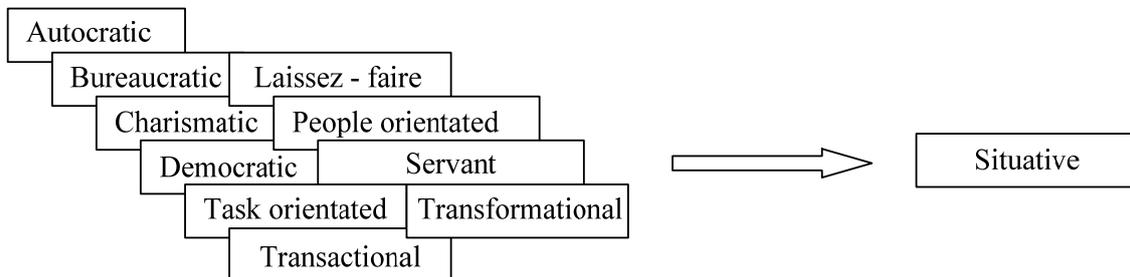


Figure 4. Styles of Leadership

Acknowledging the current leadership style and knowing the task will help you to create a situational leadership. As mentioned before, for the most effective approach you must consider the skill levels and experience of the members of your team, the work involved, the organizational environment and the own natural style. A good leader will find himself switching instinctively between styles according to the people and work they are dealing with.

In the above paragraph I mentioned the appropriate style of leadership in correlation with the type of employee goes beyond management. But is there something, management can do to enforce a healthy work environment. The focus was primarily on the leader, but is there something the employee can do, or better, the management. One term is the so called "work life balance". Work life balance describes mainly two life domains: work and life. It assumes that work and life are different life domains and have to get into balance for a healthy work life. This gain this balance, the management is asked to create, besides the leader, some prerequisites



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within the enterprise. For human resource management, work life balance can create an advantage for the enterprise on the technical services market, because it reduces the fluctuation of employees and raises the efficiency of the people and teams. A. Hochschild contested with her book “Time blind” that in the United States organizations which are family friendly and promote work life balance are more or less rejected. In Germany E. Thadden stated the contrary development and puts the human into a family perspective. In the past years, health programs, motivation trainings and retirement programs came into the focus of the management, because the remedies for an unhealthy employee are very high and the payments for recreation are very high. This has effect on the profit. The enterprise performs these tasks by installing cafeterias, sport programs and psychological prevention. It lives the work life balance by its managers and creates motivation and loyalty for the employees without career disadvantages. We can state that the health and satisfaction within the working environment and the work life balance create a more efficient and effective output of the technical services enterprises and might be valid for any other enterprise, where people are an essential resource. The conclusion of this discussion is that not only the leaders are responsible for a healthy working atmosphere – it is also the managers, the structures and the employee himself.

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**AN INTEGRATIVE MODEL OF THE INNOVATION
PROCESS IN PUBLIC ORGANIZATIONS**

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Abstract

The main research question guiding this study is how and why innovation in the area of sustainable development begins, develops, is implemented, and (perhaps) ends in a municipality. It requires identifying both the external and the internal factors that influence the adoption and the implementation of a process of municipal innovation.

To achieve this, we analyzed, using 13 case studies, the particular situation regarding sustainable development in Andalusia (Spain) and the implementation of the Local Agenda 21 in the different municipalities that joined City 21 Program. We focus first on the research design, secondly on the data collection, and thirdly on the data analysis.

We hope that the proposed model helps town councils to develop management by and for sustainability, according to the repercussions that their decisions can have for future generations. The main contribution is the integrative model that we propose, defining a set of variables that influence an innovation process, the implementation of the LA21.



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1. Introduction to Agenda 21 and City 21 Program

In recent decades, environmental issues have awakened great interest and concern. Due to this, organizations are facing increasing pressures to adopt new practices. One of these practices is the Local Agenda 21 (LA21), a sustainable practice that since 1992 is being implemented by local councils around the world. In Spain, the greatest impulse to become involved in this effort has come from the autonomous communities, which have played a relevant role in promoting the adoption of the LA21 in their town councils. In Andalusia through the specific Program for Urban Environmental Sustainability “City 21.”

The scholarly literature on innovation was for a long time not very voluminous, but this is now rapidly changing (Fagerberg and Verspagen, 2009), and we can find, in the last years, new research about innovation within a regional context (Coronado, Acosta and Fernández, 2008, Galia and Legros, 2004, Howells, 2005). We want to contribute to develop this emerging field. In this paper, the organizations under study will be the Andalusian local councils that belong to the City 21 Program and the innovation under study will be the LA21.

The main research question guiding this study is how and why innovation in the area of sustainable development begins, develops, is implemented, and (perhaps) ends in a municipality. This question requires studying the sequence of decisions and actions related to the adoption and the implementation of the innovation. It means to respond what factors foster innovation in an organization. Further, it requires identifying both the external and the internal factors that influence the implementation of the LA21 programs.

To achieve this, we analyzed, using case studies, the particular situation regarding sustainable development in Andalusia and the implementation of the LA21s in the different municipalities that joined City 21 Program. We hope to learn why specific actions were taken in relation to the adoption of LA21, where and for whom they were taken, how they were and continue to be implemented, if the concept of *empowerment* stimulates and manages the innovation process, what changes are being produced and with what results. In other words, our goal is to study a process of municipal innovation during the whole of the life cycle of the innovation.

To achieve this goal, we begin by defining the LA21 and the City Program 21 and how were created. Next, we explain the methodology: We focus first on the research design, secondly on the data collection, and thirdly on the data analysis. Next, we present the main results through nine propositions based on the innovation process and the organizational and institutional factors we observed to influence the process of implementation of the LA21 in the town councils. We then present an integrative model that includes the set of variables that define and condition the innovation process. Finally, the main conclusions are presented.

As organizations under study, the town councils operate in an institutional context with general pressures to change in general. Specially, the pressure is toward activities directed to protecting the environment and achieving sustainability. Because town councils are one of the organizations closest to the people, they have been forced to respond to these new demands by considering a series of conditioning factors that direct them to new behaviours expressed in new practices such as the LA21.

Based on this premise, we choose case studies as methodology, because, according to Yin (1989, p. 13), “case studies are the best research strategy when “how” and “why” are the



questions formulated, when the researcher has little or no control over the events and when interest focuses on an everyday phenomenon in some real-life context”.

2. Research Methodology

2.1. Research Design: Case Study Approach

Case study is a methodology that enables the researcher to study a topic as a dynamic and not a static process (Chetty, 1996). Further, as Gummesson (1988, p. 78) argues, “conventional research methods are hardly applicable to studies of processes for change in companies”. The design of our research takes into account the two concerns expressed in the previous paragraphs; the whole picture and time, using what Yin (1984, p.53) describes as a “multiple case design”. According to Eisenhardt (1991, p. 620) “multiple cases are a powerful means to create theory because they permit replication and extension among individual cases”. Taking these considerations into account, we will now explain the specific focus of the research performed.

The study started from the assumption that adopting the LA21 means incorporating a new and thus an innovative practice for the specific context of each town council. This is a premise congruent with the definition of innovation offered by King (1992, p. 90). In the context of the current study, we can define the LA21 as an innovation introduced into a specific social reality, the town council, an innovation whose implementation requires a series of actions intended to help the municipality.

Following the definition of the innovation process provided by researchers Schroeder, Van de Ven, Scudder and Polley (1989), we have adopted the five concepts that guided the data collection in their study: ideas, people, transactions, context and results. The concepts were selected because they constitute central factors of interest for innovation managers (Van de Ven, 1986), insofar as “the innovation process consists of motivating and coordinating people to develop and implement new ideas, by engaging in transactions (or relationships) with others and making the adaptations needed to achieve desired outcomes within changing institutional and organizational contexts” (Van de Ven & Poole, 1989, p. 317). The context in which the development of an innovation will take place will affect the success of its implementation. That is, one cannot separate an innovation from the context in which it is generated and performed.

Table 1

Number of inhabitants of municipalities visited

Fuente de Piedra:	2146	Granada:	236982	Motril:	56605
Arahal:	18655	Villacarrillo:	10902	Vícar:	19830
El Viso de Alcor:	17194	San Roque:	25548	Montilla:	23391
Cartaya:	15480	Jerez de la Frontera:	196275	Montoro:	9583
Punta Umbría:	13736				

Source: Andalusia Institute for Statistics on Municipalities in Andalusia: Basic Data 2007 (www.juntadeandalucia.es/iea/)



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Our study included 13 town councils belonging to City 21 Program in Andalusia. We used theoretical sampling to determine our number of cases. Our goal was to choose cases which were likely to replicate or extend the emergent theory, and we stopped adding cases when our incremental learning diminished (Eisenhardt, 1989). All 8 provinces of Andalusia were represented in the thirteen town councils visited. These town councils also represent municipalities of different size and number of inhabitants (Table 1).

2.2. Data Collection

We will now describe the stages of the data collection procedure. The *first phase* consisted of compiling and analyzing information from a large number of source documents in order to start from the actual state of City 21 Program. The *second phase* consisted of performing an exploratory investigation *in situ*. We investigated the state of development of the LA21 in thirteen city governments (Table 1). We first had to develop the script of the in-depth personal interview addressed to those responsible for the program in the different town councils chosen. The interviews were backed up with direct observation and the study of documents (diagnosis documents, participation plans, meetings proceedings, brochures about the LA21, general and specific reports, etc.).

2.3. Data Analysis

The analysis procedure was carried out by means of discussion groups. First, the four researchers exchanged analysis and searched for patterns in the data; second, the researchers had meetings with the Technical Secretary of City 21 Program in order to obtain a greater consensus regarding the implementation of innovation by the different town councils.

After looking for similarities and differences between the cases, the process that follows is highly iterative, since it consists of systematically comparing the emerging structure with the evidence from each case. The aim is that the researchers should continuously compare the theory and the data, interacting towards a theory that will closely fit the data (Eisenhardt, 1989). After much iteration between data and propositions, we used comparisons with the existing literature to highlight our results. “Tying the emergent theory to existing literature enhances the internal validity, the possibility of generalization, and the theoretical level of theory building from case study research” (Eisenhardt, 1989, p. 545).

1. Results and Discussion: Presentation of Propositions

The research enables us to identify a group of propositions based on the innovation process and the organizational and institutional factors that we observed to influence the process of implementation of the LA21 in the town councils.

Proposition 1: The empowerment given to the town council's employees in City 21 Program has a positive influence on the adoption of the LA21.

Empowerment is a concept that seeks to explain the importance of delegating power and authority to subordinates by conferring on them a feeling of the importance of their work, thereby generating a “culture of contribution” (Fisher, 2004) among all of the organization's members and levels. In the process of the LA21, this culture is crucial for ensuring that all of



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the councils are involved in the process from the beginning and that the workers in each of them perceive that their role is crucial to the implementation of this innovative practice.

According to Thomas and Velthouse (1990), the concept of *empowerment* has multiple facets that can be summarized in four concepts that reflect an individual's orientation to the role he or she performs in the workplace. These are: *meaning*, such as the value of the objective or goal of the work relative to the individual's own ideals or standards; *competence*, that is, the individual's belief in his or her ability to perform tasks skilfully; *self-determination*, or the individual's sense of making his or her own choices in initiating and controlling his or her actions; and *impact*, or the degree to which the individual can influence the results through his or her work, whether these results are strategic, administrative or operative.

As to empowerment, the people interviewed expressed the importance that their work has for them personally, the value of the activities that they perform and the great value that their work has for them, illustrating the importance of the idea expressed by empowerment. Regarding the second concept, competence, the people interviewed showed great confidence in their preparation and abilities to perform their tasks, as well as their possession of the technical knowledge needed to perform their work. Regarding self-determination, most stated that they were granted the autonomy to do their work and were allowed great independence and freedom in deciding how to perform it. The perceived impact of their work on what happened in their department was also substantial. Finally, as to the impact of their work, most say that they have great control and influence over what happens in their departments. This shows that the leadership team of the town council actively supported the initiative of adopting the LA21 to make it a success.

Proposition 2: Receptiveness to the change in the town councils in City 21 Program positively supports the implementation of innovation.

As Beckhard and Harris (1987) indicate, resistance to change is a normal part of the process of change. One of the principal obstacles for local and regional governments is their unreceptive attitude to proposed changes (Coronado, Acosta and Fernández, 2008). Organizations are "stabilizing forces" (Klein & Knight, 2005). However, organizations can differ in the extent to which they are open to change and value it as a goal (Holahan *et al.*, 2004). Following these authors, the current study has included the variable of receptiveness to change, as "organizations high on receptivity toward change value change, experimentation, and doing things differently".

As indicated above, the town councils studied are all in the implementation phase of the LA21, a phase characterized by the resistance that most hinders change (Pardo del Val & Martínez, 2005, p. 47).

In our study, receptiveness to change was defined according to the views that the person interviewed held on issues related to the extent to which the LA21 was adopted without resistance. The town council was perceived as flexible and open to change. Most of the people interviewed stated that the members of the town council did not strongly resist adoption of the LA21 but rather accepted and supported it with great enthusiasm, showing the town council to be flexible and to adapt to continual change.

To overcome resistance to change, it is advisable to invest in developing a positive climate surrounding the innovation. "Climate is the atmosphere that employees perceive is created in their organizations by practices, procedures, and rewards. These perceptions are developed on a day-to-day basis. They are not based on what management, the company



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newsletter, or the annual report proclaim – rather, the perceptions are based on executives behaviour and the actions they reward” (Schneider *et al.* 1994, p. 18). Those in charge of an organization create a specific climate through what they *do*, not what they say. As a result of our observations according to the climate of implementation of the innovation in the different town councils studied, we were able to make the following proposal:

Proposition 3: The climate of implementation of the innovation in the town councils in City 21 Program will have a positive influence on the success of the implementation of the LA21.

The climate of implementation was defined according to a series of the interviewee’s perceptions about issues related to the priority, effort, commitment and motivation shown by their town council. From those interviewed, we could confirm the perception that implementation of the LA21 was considered to have high priority in the town council and that one of the town council’s goals was to use the LA21 effectively, showing that it was concerned with the success of this practice.

On the other hand, support for the implementation is a variable related to the climate of implementation, given that much support from the team leading the town council should help to create a better climate for implementation of the innovation.

The literature on organizational change and innovation (Angle & Van de Ven, 1989; Beer, 1988; Klein & Sorra, 1996; Nadler & Tushman, 1989) suggests that the main antecedent of climate favourable to implementation in an organization is precisely the leadership team’s support for the innovation. Yet despite leadership support, it is clear that in many cases the team fails to give its own support. In our case, as a result of our observations, we were able to make the following proposal:

Proposition 4: Support for the implementation of the LA21 by the leadership team of the town council will improve the climate for implementation of LA21 in the town councils.

A concept closely related to an organization’s climate is the concept of culture. Culture is farther-reaching and deeper than climate and includes “beliefs, expectations and fundamental or basic principles shared by the members of an organization” (Leal, 1990, p. 19). According to Burnside (1990, p. 27), the climate is defined as “what we are doing,” whereas culture is “why we are doing what we’re doing.” That is, there is a “why” behind the actions performed by the highest officials of an organization like the municipality. By observing and interpreting these actions, the employees in city hall can explain to themselves why things are the way they are and why their town council focuses on certain priorities. Culture, then, comes from the employees’ interpretations of the beliefs, expectations and principles that produce the climate that they experience (Schneider *et al.*, 1994). We can understand the fundamental role that the highest official in the town council has in creating the culture and climate of his or her organization. As a result of our observations according to the role of the sustainable beliefs and principles in the different town councils studied, we were able to make the following proposal:

Proposition 5: The continued success of the LA21 requires a culture attuned to its precepts.

Furthermore, given that it is a variable considered consistently for its relation to innovation, we studied the size of the town councils. As we have indicated, the sample represents municipalities of different sizes. We do not observe significant differences in the



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town councils and processes of adopting the LA21 based on the size of the town. From this we are able to formulate the following proposal:

Proposition 6: The size of the town councils in City 21 Program does not affect the decision to adopt the innovation.

As we have explained, a supporting organization allowed to the innovation to proceed successfully. Furthermore, we are able to observe how the institutional context explained the motives to adopt the LA21 in the town councils. Institutional theory analyzes the pressures of the institutional context that organizations must face and to which they must respond. Through these coercive, normative, and mimetic pressures, organizations adopt certain structures, programs, policies and procedures (DiMaggio & Powell, 1983; Greenwood *et al.*, 2002; Meyer & Rowan, 1977; Scott, 1987). Institutional change plays an important role in the generation of opportunities for entrepreneurial activity, yet relatively little research has examined this relationship (Sine and David, 2003, p. 185).

Town councils that have not adopted the LA21 have been able to become familiar with it and begin to know about it from other town councils that have adopted it. This knowledge can be a factor that motivates adoption of the measure. These pressures can have a positive effect on the adoption of innovations. The evidence obtained allows us to formulate the following proposal:

Proposition 7: The coercive, normative and mimetic pressures of the institutional context of the town councils in City 21 Program influence them in the process of adopting the innovation.

Town councils show that they know about the successful experiences of other town governments. Communications media also do important work in this area. City 21 Program receives a lot of publicity, which makes town councils take as models other town councils that already form part of or are implementing a LA21. Even so, we believe that, as the number of town councils forming part of this program increases, the mimetic pressure will increase and a greater number of town councils will decide to adopt the LA21 due to this kind of pressure. This will mean that the practice is perceived as the right way to act and has become fully institutionalized (Tolbert & Zucker, 1996).

According to our observations, the previous propositions describe the organizational and institutional context that favoured the adoption and implementation of LA21 in the town councils. Then, if we look at the process of implementation of the innovation a little closer we are able to observe what makes it to progress successfully in its day by day. The following propositions describe our observations.

Proposition 8: The implementation of the LA21 requires communication and coordination within the town council so that it does not function as an isolated task but as a task that permeates the entire town government.

On the other hand, all interviewees agreed that better coordination between departments in the implementation of LA21 must include the strategic and long-term planning of the town council. Further, the town council's highest official must be greatly involved, not only in pushing the initiative but also giving it legitimacy and moderating when necessary, as well as creating incentives for the change. Motivation for the innovation requires attention. The integration of LA21 in the organizational structure and strategic plan of the town council would help to integrate the meaning of the agenda into the town government. As one of the



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interviewees put it, “The agenda is technical work plus political support”. As we can see from our conversations with those in charge of the agenda:

Proposition 9: The absence of interest group participation makes it harder to perform the innovation successfully.

People related to the implementation of LA21 can be classified into two groups: those whose main task it is to implement LA21, or the “LA21 team”, and those who influence or are affected by the program, that is, “interest groups” or “stakeholders”.

Within these interest groups, we find professional, research and entrepreneurial associations; unions and associations of ecologists and neighbours; citizens, the education sector, NGOs, the different administrations and any other specific actor in the municipality. As the researchers observed, these interest groups play an important role in the successful implementation of LA21, as the program requires their support in transforming the principles of sustainability that define LA21 into practice in the municipality.

The following figure shows the variables and the model that describe our observations in the study of the implementation of the LA21 as innovation in the town councils.

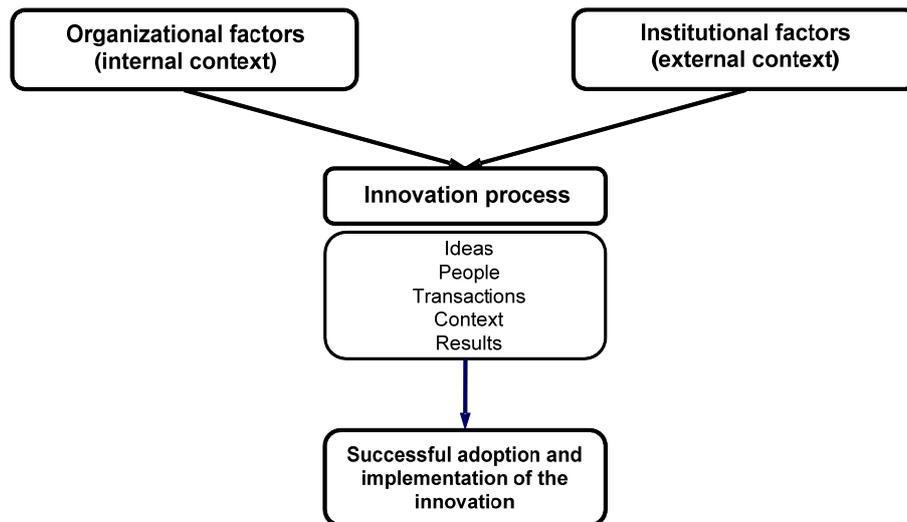


Figure 1. Proposed model of the innovation process

Conclusions

This research enables us to enter into and understand in greater depth the current state of the LA21s in Andalusian municipalities. It used the strategy of case study research, which allowed us to get to know personally those responsible for the implementation of the Agendas in thirteen town councils selected. The main contribution is the integrative model that we propose, defining a set of variables that influence an innovation process, the implementation of the LA21. It requires identifying both the internal and external factors that affect its adoption.



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Internal factors such as the empowerment given to the town council's employees, the receptiveness to the change in the town councils, the climate of implementation of the innovation, the support for the implementation of the LA21, the organizational culture, the size of the town councils, the participation of stakeholders and the communication and coordination within the local councils, affect the innovation process.

External factors, from the institutional context in which these organizations are embedded, also influence the innovation process. We think that institutional theory is the theoretical frame to analyze the institutional pressures that organizations must face and to which they must respond. Coercive, normative and mimetic pressures influence the process of adopting the innovation.

These town councils that have adopted and are implementing the LA21 are aware that, in a world like the present one, there is a need for continual renewal. Therefore, the incorporation of the LA21 in the town council management can be a beneficial, appropriate and coherent instrument for achieving renewal and adapting to society's new demands, which require attention and responses from the most local authorities. We hope that the proposed model helps town councils to develop management by and for sustainability, according to the repercussions that their decisions can have for future generations. At the same time, we hope to advance regional studies of innovation.

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DECISION EFFICIENCY IN EMPLOYEE SELECTION PROCESSES IN REGARD TO HAPPINESS

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Abstract

This intention of this research paper is to analyze decision making processes in job search and prior educational search processes in Austria. People from their childhood until adulthood are confronted with recurring decision processes regarding their educational and vocational choices. Assuming that most people want to achieve the highest possible level of happiness in their lives it could be deduced that people would align their decisions accordingly. It seems that this is not the case though as happiness research shows. Therefore this research paper intends to investigate the decision making processes of individuals in Austria. The assumption that there is a need for improvement of decision making processes regarding educational and vocational choices is analyzed and seems to be supported. An investigation of this topic seems relevant in business context as especially in human resource management and employee selection processes the aspect of happiness is an important one and relevant to various organizational variables.

1. Introduction

The presented research paper will focus on issues of decision making regarding educational and vocational choices in Austria under the perspective of happiness. There are various definitions of happiness but it may be briefly described as the subjective feeling of well-being or life satisfaction. In recent years not only philosophers, psychologists, neuroscientists but also economists and business scientists are increasingly investigating the importance and impact of individuals' happiness. Especially the relevance of employees' happiness at work is an issue relevant to companies today, particularly to human resource management. The process of individuals applying for jobs and companies hiring candidates with the according antecedent decision chain in Austria is critically reviewed under the aspect of happiness.

2. Economic and Business Relevance

Career planning of individuals and decision making in regard to education and job selection in Austria and most western countries is a process which seems to highly influence the



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quality of employees available on labor markets. The relevance of these topics for companies and especially human resource management and recruiters are therewith evident. Companies might be able to recruit most suitable job candidates but most times before that individuals have to make decisions about application for a job they find suitable for themselves. These preventive decisions are usually taken by individuals under consideration of different criteria and viewpoints.

Now in economics a relatively new scientific field appeared over the last years – namely the economics of happiness. Not only in philosophy but also in economics and business sciences leading researchers like Richard Layard, Bruno Frey, Rosenstingl, and others started to investigate in what makes people happy and its conclusions and impact for the business and economic world. By connecting the perspective of happiness with the processes of career planning and the according decision making processes it becomes clear that a rethinking seems necessary.

As Frey states “individuals tend to make systematic errors when choosing between alternatives. For example, they often mispredict the utility gained by future consumption. They overestimate the satisfaction they derive from having a higher income in the future, and they underestimate the utility gained from immaterial aspects of life, such as friendship and social relations. As a result of these errors in judgment, they find themselves less satisfied with life than they could be according to their own evaluation” (Frey, 2008, Preface) Under the perspective of happiness it seems important for individuals to improve their judgment and prediction of personal future utility of alternative education or job options in order to be able to optimize decisions and to achieve the highest possible level of happiness and satisfaction in their future lives.

The relevance of employees to be happy at work has been broadly studied over the past decades especially in the context of job satisfaction. The effects seem to be clear. First of all continuous happiness is said to be healthy. Happy people got a stronger immune system, their bodies produce less of the stress hormone cortisol. (Layard, 2009, p. 37) Biswas-Diener & Dean (2007, p. 31) state that “happy people live longer, stay married longer, make more money, receive better evaluations from work supervisors, take fewer sick days, are more altruistic and more creative.” They say that “Happiness is functional. Individuals, families, organizations, and societies need happy individuals to flourish. Happy people are more likely to be curious and explore, to take risks and to seek new social contacts.” Also Faragher et al. (2005) report that the level of job satisfaction is an important factor influencing the health of workers. Job satisfaction was most strongly associated with mental and psychological problems – strongest relationships were found for burnout, self-esteem, depression, and anxiety.

Management Literature has widely investigated the impact and effects of job satisfaction and dissatisfaction at work on various organizational variables. By measuring different variables e.g. the degree of satisfaction with the work, co-workers, supervision, total pay, promotional opportunities and more, researchers have examined relationships between job satisfaction and organizational commitment, performance, cohesion and organizational climate.

All this stresses the importance and relevance for companies to have employees being happy at work due to direct and indirect costs associated with employee and especially hiring decisions. Certainly much can be achieved by applying different approaches and programs in human resource management to increase job satisfaction. But employee selection decisions



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seem to stay crucial like Hunt says: “The most important decisions companies make about employees is the decision to hire them. All other decisions in human resource management are a consequence of this initial choice.” (Hunt, 2007, p. 3)

3. Factors contributing to Happiness at Work

Definitely there are many factors influencing people’s happiness and also happiness at work. For instance according to Maslow’s hierarchy of needs in western countries besides security of employment especially need for self-actualization or self-esteem will have an impact on people’s satisfaction and happiness in their jobs. (Maslow, 1943)

According to Frey & Frey Marti (2010, pp. 95) the possibility of self-determination is a highly motivating intrinsic value which is correlated with autonomy. It allows the experience of competence, autonomy, social integration, flexibility and freedom to use personal potentials and talents. All this results in non-monetary benefit and increases satisfaction.

When looking for self-determination and happiness at work Peter F. Drucker (1999, pp. 73) in his article “Managing Oneself” encourages everyone to ask fundamental questions like: “What are my strengths? How do I perform? What are my values? Where do I belong? What should my contribution be?” and more. Regarding values he states “To work in an organization whose value system is unacceptable or incompatible with one’s own condemns a person both to frustration and to nonperformance.” From his perspective it is inevitably important for everyone to review his values, as well as his/her talents and strengths.

Also Komisar (2000, pp. 23) follows the statements of Drucker that it is essentially important to know who one is and to let passion drive people through their working life. He encourages that even if this approach might not get people up any ladder but if it makes them feel better they should move on the chosen direction.

Also the hypotheses of people involved in volunteer work being experiencing a higher degree of happiness can be approved. People are generating benefit from helping others by making advances of the intrinsic motivation of taking care of the well-being of other people. (Frey, 2008, pp. 101)

Definitely there are more factors relevant for people being happy in their jobs but most of the above researched can be found throughout happiness at work and job satisfaction literature. It’s these parameters which seem to be necessary to pay close attention to: for individuals on the one hand and human resource managers regarding e.g. employee selection processes on the other hand.

4. Decision Making in Career Planning Processes in Austria

When analyzing the decision making processes in job and career planning of individuals in Austria beyond others the following question appears: who takes when and why which decision?

When looking at the decision chain in the career paths of individuals the decision about which education to choose is probably one of the first major decisions which will influence the jobs a person will and can apply for in the future. Decisions regarding which school to attend,



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which apprenticeship to apply for, which higher educations to opt for or which jobs to apply for are just some to be managed.

Most times one decision will influence the next one and so on so that already early decisions of parents will have an impact on the path of individuals in their future life as people are used to have investments of time and money in education, practice and know how pay off in their life. Fundamental changes of education paths or careers are usually connected with all kind of costs and time efforts, consecutively paths usually seem more time and cost effective.

The parameters and motives relevant for individual's decision regarding education, job or career selection might differ but probably regularly contain internal and external criteria like:

- Internal criteria: interest, know how, education, talents, values, flexibility, mobility, income perspective, prestige, security, fix costs to cover, responsibilities etc.
- External criteria: schools available and affordable, jobs available, distance from home etc.

When looking at educational decisions in Austria public opportunities include:

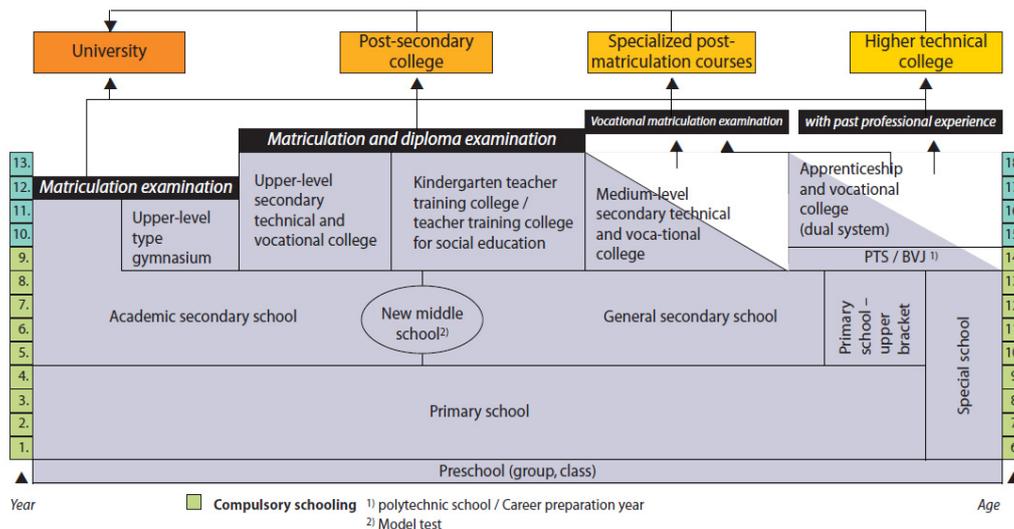


Figure 1. Educational Opportunities in Austria (Bundesministerium für Unterricht, Kunst und Kultur, 2008, p.2)

Additionally there are other options individuals can choose from like attending private schools, studying abroad, which majors to choose, further adult education and more.

What's common for all educational decisions is the influence on future jobs one will apply for due to specific know how built up in specific schools. Therefore it seems important that already early decisions are well analyzed and of high quality.

When looking at who is taking these relevant decisions, at young age individuals are usually strongly influenced by the views, values and opinions of their parents, families or other supervisors. They usually take the decisions for their children up to a certain age. Older kids and teenagers will start participating in decision making over time and will finally



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overtake the whole responsibility for their educational and vocational choices. Still influences will many times continue – from family, teachers, friends, partners and others. Decisions are especially relevant and regularly made at the crossing points between schools or between education and job.

Now as mentioned above Frey says that “individuals tend to make systematic errors when choosing between alternatives. As a result of these errors in judgment, they find themselves less satisfied with life than they could be according to their own evaluation.” (Frey, 2008, Preface x) This indicates the necessity of decision improvements – regarding early individual decision making processes as well as company decision making in employee selection processes.

5. Hypotheses and Research Questions

Derived from the statement of Frey it seems important that people improve their judgment and prediction of personal future utility of alternative jobs in order to be able to optimize decisions and to achieve the highest possible level of happiness and satisfaction in their future lives – and jobs. This seems relevant for individuals as well as for companies and economies.

The main hypothesis in this research paper is:

H1: There is a need for improvement in individual decision making under the aspect of happiness in Austria regarding educational and vocational choices.

Therewith the research question of “Are there indicators for the necessity of improvement of decision making processes in Austria?” should be investigated and analyzed.

Following the findings regarding this hypothesis and research question the concluding part of this research paper will analyze business relevance of the investigated topic especially for human resource management and aspects of decision theory will be added to the final conclusion.

6. Methodology

This research paper will examine relevant literature and critically analyze it in the theoretical context of the approached research topic.

7. Findings

When investigating public statements regarding educational and vocational decision making processes in Austria much information can be found.

The Austrian Federal Minister for Education, Art and Culture, Claudia Schmied, for instance states that consulting and orientation is the key to successful education decisions especially for the decisions what school to go to or what to study. Therefore a couple of programs have been initiated in order to support young people and adults in their decision making processes regarding their specific education and career paths. (Schmied, 2011a)

The fact that support for improvement is necessary in this field can be underlined by the evidence that 60% of all first-year students study only 10% of all offered study fields.



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“Studienwahlberatung NEU” is only one initiative which should improve the counseling of study fields for young people and encourage them to think about alternative studies. The main goals of the program is sensitizing of high-school graduates for education path issues, support and counseling as well as orientation opportunities for reduction of study dropouts and more. (Schmied, 2011b)

Another initiative of the Austrian Federal Ministry for Education, Art and Culture (BMUKK) is the IBOBB Program which is a program for information, counseling and orientation for education and profession. (BMUKK, 2009b) It goes along with the “European Lifelong Guidance Policy Network” which “promotes both social and economic goals: in particular, improving the efficiency and effectiveness of education, training and the labor market through its contribution to reducing drop-out quotes, preventing skill mismatches and boosting productivity. Two EU Resolutions of the Education Council (2004; 2008; Counsel of European Union) have highlighted the need for strong guidance services throughout the lifespan to equip people with the skills to manage their learning and careers and the transitions between and within education/training and work. The resolution focuses on four priority areas: the development of career management skills, accessibility of services, quality assurance, and coordination of services. Member States were invited to take action to modernize and strengthen their guidance policies and systems” (European Lifelong Guidance Policy Network, 2010, p. 5)

The Lifelong Guidance Strategy Development in Austria in accordance with national and international studies and in reconciliation with developments and discussion in the European Union defined the following programmatic goals: 1. Implementation of core competences in all curricula: train competences for decision making regarding educational and occupational choices, 2. Focus on process orientation and counseling as high quality decision making processes are the basis for unerring educational and occupational decisions during all phases of life, 3. Increase professionalism of all coaches, counselors etc. in the field of education and job orientation, 4. Quality assurance and evaluation of supply in the field of information and orientation and 5. Enlarge accessibility for new target groups – all people should be accessed who are in need of support. (BMUKK & Steirische Volkswirtschaftliche Gesellschaft, 2011)

The Austrian Government Program for 2008-2013 includes the following issues in the context of education and work:

- Work: Career Information and Training (Austrian Government Program 2008, pp. 24):
 - Improvement of vocational information and guidance at the Austrian Labor Market Service (Arbeitsmarktservice);
 - Mandatory career information and counseling at schools (7th and 8th grade) through increased cooperation between schools and external partners (Wirtschaftskammer, Arbeiterkammer, Arbeitsmarktservice, and companies);
 - Expansion of educational guidance – cooperation of responsible authorities;
- Youth Policy: Vocational- and Educational Orientation (Austrian Government Program 2008, p. 157):
 - In clearly defined criteria and within the existing curriculum for all students career guidance from the 7th School level, with special consideration of breaking gender stereotypes as well as networking with industry;
- Education (Austrian Government Program 2008, pp. 195):
 - Guarantee Education: activities towards vocational and educational orientation should support young people to find appropriate education;



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- Career guidance and counseling: should be increased in the 7th, 8th and 9th grade. This should help young people and their parents in making good educational and vocational decisions. Vocational orientation should be offered in cooperation with experts from outside schools counseling agencies. Intensive cooperation between schools and higher educating schools should help to improve decision regarding studying subject. Additionally a new program for vocational and educational counseling should be offered at public colleges for education;
- Adult education: further improvement of educational guidance for adults should be achieved through professionalization of counseling with modern counseling instruments. (Third paragraph);
- Science (Austrian Government Program 2008, p. 207): specific approaches to increase graduate- and success-quotes:
 - Intensive cooperation between secondary schools and higher educating schools like universities regarding individual study field decision making;
 - New forms of individual support such as tutoring (accompany students at universities) and coaching (experienced students assist younger students) should be supported.

All above statements seem to support the investigated hypothesis. It seems like in Austria there is a need for improvement in decision making processes, optimization and support in career management skills and decision making strategies.

8. Critical Analysis and Conclusion

As the main hypothesis of this paper seems to be supported by the findings it appears to be necessary to look at it from a business and human resource management point of view to analyze the impact on organizations.

Human resource management with its staffing and employee selection processes today have to obtain people with appropriate skills, abilities, knowledge and experience to fill jobs in the work organization. (Bratton & Gold, 2000, pp. 15)

According to Cook (Cook, 2009, p. 13) information used in employee selection is divided into five main types: self-reported, reported, demonstrated (test and behavioral), recorded and involuntary information. Recruiting and the selecting process are carried out with different methods and tools with which information from job candidates are analyzed for the purpose of prediction their future job performance. Cook lists a number of traditional and newer selection assessment methods of which most of them can be found in standard human resource management literature: application form, CV, resume, traditional interview, references, electronic application, structured interview, peer rating, mental ability test, job knowledge test, achievement test, personality questionnaire, honesty test, projective test, biodata, assessment center, group exercise, behavioral test, simulation, emotional intelligence, situational judgment, social intelligence, work sample test (trainability test) and physical ability tests. (Cook, 2009, p. 11) The types of selection practices vary across countries like e.g. presented by Dany and Torchy. (2009, cited in Cook, 2009, p. 20)



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Especially when relying on self-reported information about potential candidates the necessity for the highest possible level of individual self-reflection regarding interests, values, visions and goals seems to be essential not only for individuals but also for companies and their recruiters.

This seems also to apply from a decision theory point of view. Decision efficiency is defined as a decision which leads to the achievement of all given goals with a relatively low amount of resources, meaning at the best ratio of input and output including tangible (material) and intangible (mental) costs. (Gzuk, 1988, p.127, cited in Büschen & Everling, 2007, p. 326). It is stated that an increase of information and instruction level for decision making problems will increase rationality in managerial decision making processes. Higher degrees of rationality strongly tend to induce higher degrees of decision efficiency and better outcomes. (Neuert, 2004, p. 6)

Combining the insights of this research paper regarding happiness, career management skills in Austria, employee selection processes and decision theory this leads to the following conclusions:

It seems obvious that employers benefit from happy employees. To some extent happiness can be influenced within companies by job satisfaction initiatives. But especially the influence of hiring people who got a realistic chance to get happy in a particular job and organization seems to be important.

As stated above it seems like the hypothesis of this paper is supported by the findings and that in Austria there is a need for improvement in decision making processes in and optimization and support of career management skills and decision making strategies.

Obviously there are approaches and various programs implemented in Austria today to assist individuals in orientation and decision making regarding education and career planning. How far these programs are targeted towards happiness can be questioned. It is an aspect of orientation but also other aspects like lack of specialists in different working fields will very probably be considered. Of course there will also be differences in quality between the offered programs.

Human resource management today offers various tools and approaches for the investigation of peoples' characteristics like skills, experiences or personality. Depending on the type of employee selection methods the information level gained about potential candidates will differ. Especially for self-reported information there seems to be the need for challenging it due to the fact that career management skills and self-orientation in Austria at least among young people seems to lack sufficient competence due to findings.

The question or hypothesis whether an increase of information regarding self-reflection, educational choices and opportunities really increases the efficiency of decision making processes toward happiness still has to be investigated. According to decision theory this should be the case. Empirical studies might be able to further investigate in this topic. This might be an implication for further research.

9. Managerial Implication

The findings in this research paper show that happiness of employees is a relevant issue for companies due to its impact on relevant company objectives.



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Human resource managers should learn from the insights gained from happiness research which says that humans and therewith potential employees do not always behave and decide rationally towards happiness.

Also the obvious need in Austria for educational and vocational orientation, decision making and career management skills, seems to further indicate that individuals may not always be able to well reflect on themselves towards happiness and evaluate organization and job matches accordingly.

The managerial implication of this paper is that companies with their human resource departments and especially their recruiters should clearly investigate and strongly focus on how well applicants are aware of happiness factors and how self-reflected they are. Finding out about interests, talents, strengths, passions and challenging a realistic self-evaluation might contribute to better employee selection decisions. The methods or techniques to use for these processes can vary and the quality of each of them should be evaluated regarding their validity and reliability in this context. The aspects of happiness should be challenged in staffing processes in order to be able to avoid the negative impacts of unhappy workers and to enhance the positive effects.

10. Implication for further Research

Following the analysis from above it would be interesting to empirically test whether an increase of information level regarding self-reflection and orientation has the potential to increase the efficiency of decision making processes of individuals toward happiness. Similarly it would be interesting to further investigate the impact on decision efficiency in human resource management and their staffing and employee selection processes.

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DEVELOPMENT ECONOMICS – FROM THE TRADITIONAL APPROACHES TO THE NEW CONCEPTS

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Keywords: development, sustainable development, human development, local development, development economics

Abstract

Development economics centres its analysis on the specific problems of less developed countries. Its main goal is to find answers to the following question: ‘how can low-income economies in the world today be set on the track to sustained economic development for the immediate goal of reducing poverty and the long-run goal of catching up on the wealth of developed economies?’ (Hayami and Godo, 2005: 2 [1]).

Many answers to this fundamental question have been presented. We survey the central elements that characterize four important theoretical approaches in Development Economics, namely: (i) modernization theories; (ii) dependency theories; (iii) world-system theory; (iv) neoclassical counter-revolution.

However, the “old” notion of economic development, which considers as its main goal the reduction of inequality in terms of per capita income, seems to be insufficient to cover the amplitude and complexity of development problems. Therefore, it is not surprising that the notion of development has been expanded through the consideration of new dimensions, with the adding of many adjectives to the word “development” – “human”, “local” and “sustainable” development being the most frequently mentioned.

The main objective of this paper is to produce a concise survey of this range of contributions frequently analyzed separately. Together with the contributions of traditional development economics, these new development concepts – human, local and sustainable – offer a theoretical wealth which, in their globality, allow a more appropriate understanding of the complex and multi-dimensional phenomenon of development.



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1. Introduction

The relevance and peculiarities of development problems has led to the appearance of a new field within economics – Development Economics. This field centres its analysis on the problems specific to this periphery of the less developed countries formerly called the “Third World”.

In the context of Development Economics, we first consider a wide group of theoretical approaches on the nature of development and the factors that hinder it, reflecting on the implications in terms of real convergence. After that, we analyze some of the new concepts of development – human, local and sustainable – emphasizing their contribution to a concept that is more humanistic, focusing on human nature and on the right to a healthy, informed, and fair life.

The article is structured as follows. In Section 2, we summarize the central ideas of the more important theoretical contributions to Development Economics. In Section 3 we present the new development concepts that have emerged in the last decades, namely sustainable, local, and human development. In Section 4 we present some final remarks.

2. Main Approaches to Development Economics

Modernization Theories

Since the seminal contribution of Rosenstein-Rodan (1943) [2] the thinking on the problems and vices of underdevelopment has centred on the concept of development as a modernization process, that is, the structural change whereby developing countries become progressively similar to developed countries, namely the North-Western world. Historically, capital accumulation and industrialization had been the main drivers of sustained growth for developed countries and thus, it was reasoned, this would also be the way forward for developing countries. On this common ground, theorists of modernization present alternative perspectives on the causes of underdevelopment – mainly internal causes – and the way to overcome them.

(i) Balanced growth vs. unbalanced growth

Rosenstein-Rodan (1943) [2] identifies the key factors that hinder industrial investment by private enterprises in backward regions. Subsequently, he suggests a development strategy of big push actively involving State investment in the training of the workforce and State planning and organization of large-scale investment programs.

The proposition that a country is poor because it is poor summarizes the vicious circle of poverty. Low per capita income of backward economies is the starting point of Nurkse (1952, 1953 [3] [4]) for the identification of the two main obstacles to capital formation – low purchasing power and small saving capacity.¹ The final outcome is mass poverty. These constraints are overcome by both the inducement to investment and the mobilization of

¹ According to Nurkse, the latter problem is exacerbated by the operation on an international scale of the Duesenberry effect, that is, the tendency to imitate consumption patterns prevailing in developed countries by consumers from developing countries.



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investible funds. As Rosenstein-Rodan, Nurkse is thus an advocate of a balanced growth strategy, that is, ‘a synchronised and simultaneous application of capital throughout industry in order to bring about a generalised expansion of the market’ (Oman and Wignaraja, 1991: 18 [5]).

On the other hand, Hirschman (1958) [6] points to the lack of organizational and managerial skills as the major problem of developing countries. He emphasizes that a strategy of balanced growth demands such a considerable amount of these type of skills that ‘if a country were ready to apply the doctrine of balanced growth, then it would not be underdeveloped in the first place’ (Hirschman, 1958: 54 [6]). Alternatively, he proposes the deliberate creation of disequilibrium through active State involvement in stimulating investment in key sectors that have many links backwards and forwards in the economy.

Myrdal (1957) [7] stresses the existence of forces that induce a process of cumulative and circular causation that accentuate disequilibrium. As a result, initially less developed regions further diverge from advanced ones. In contrast to the so-called circular resource movement, Myrdal maintains that both labour and capital are attracted to the more dynamic regions, where wages are greater. Moreover, economies of scale and agglomeration deepen the cumulative process of disequilibrium. Even though there are spread effects between more and less developed regions (for instance, an augmented volume of demand or the diffusion of technology), backwash effects are dominant for Myrdal, leading to a deepening of the development differential. Thus, he identifies an interventionist role for government aimed at avoiding cumulative processes of economic and social disequilibrium.

In the same vein, Perroux (1955) [8] supports growth concentration in certain sectors located in certain geographical enclaves with the notion of growth poles susceptible to inducing development. These poles – ‘propellant industries, geographically concentrated poles of industry and activity’ (Perroux, 1955: 288 [8]) – are largely responsible to the growth for other industries and the economy as a whole, mainly through a number of linkages and external economies.

(ii) Rostow and Lewis’s approaches

Lewis (1954, 1955) [9] [10] develops a dynamic dual economy model with both a traditional/subsistence sector and a modern/capitalist sector, in which development is seen as a process of expansion of the modern sector and contraction of the traditional sector until the economy is no longer dualistic. His starting point is the availability of abundant labour at a subsistence level that may be absorbed by the modern sector with the offer of a slightly higher wage to induce rural-urban migration. Since the wage level remains fixed as long as labour supply is perfectly elastic (unlimited), capitalists successively reinvest their profits, enabling both modern sector expansion and traditional sector contraction. As a result, profits rise in proportion to national income, thus solving the main constraint to economic growth – the lack of capital accumulation caused, in turn, by low savings rate.

According to Rostow (1956, 1960) [11] [12], the take-off is crucial for the historical evolution of societies, since it opens the way to more advanced development stages characterized by the full modernization of both the economy and the society. He adds three specific conditions which should be in place immediately before the take-off: (i) a marked increase in the investment rate; (ii) the emergence of primary or leading sectors that function as engines of economic growth; (iii) the establishment of political, social, and institutional



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frameworks that give support to the process of industrialization and, thereby, pave the way for self-sustaining growth (Martinussen, 1997 [13]).

Stages that precede Rostow's take-off – the traditional and the transition society – are conceived as lower stages of development, while stages that follow the take-off – the drive to maturity and the age of mass consumption – are more advanced development stages where developed economies are located.

According to Rostow's theory on the stages of growth, developing countries would in essence follow the same development pattern as developed. However, 'his thesis that all countries pass through the same sequence of five economic stages, from stagnant subsistence economy to the age of high mass consumption, with each transitional stage being of similar duration in all countries, was soon discredited by appeal to historical evidence' (Hunt, 1989: 96 [14]).

In sum, the Anglo-Saxon development literature from post-World War II considers economic growth as a process conditioned by the possibilities of overcoming internal constraints associated with capital accumulation in industry or in the modern sector of the economy. The emphasis of these authors is on specifying the potential drive for the economic progress of largely pre-industrial regions and the convergence of their per capita income levels with industrialized regions. A country that does not eventually establish the necessary conditions to enter into a circle of development is stuck in a low-level trap and remains in a state of real divergence.

In their leading contributions to the modernization school during the 1950s and early 1960s, both Rostow and Lewis generally present a common view on certain key elements, mainly the following: (i) the central measure of economic growth is rising per capita income; (ii) economic development is conceived as a modernization process; (iii) the starting point for such transformation process is an abundant supply of labour in the traditional sector; (iv) savings rate is the central determinant of the investment rate, which in turn determines the economic growth rate; (v) the capitalist class (Lewis) or the entrepreneurial class (Rostow) constitutes the driving force behind economic growth, in particular, for initiating this process (Hunt, 1989 [14]).

Dependency Theories

More radical interpretations have emerged since the mid-1960s, arguing that economic domination, as exerted by highly industrialized countries over backward countries, is a much more important development-impeding factor than the internal conditions inherent in the latter countries. Both neo-Marxist and structuralist dependency theorists attempt to provide a basic framework from which the analysis of dependence, and its implications for development/underdevelopment, can proceed. Even though both perspectives reveal similarities on the position of underdeveloped economies in the international economic system, they differ in important aspects, the nature of development, the dominant causes of underdevelopment, and the route to be followed in overcoming them.

(i) Structuralism

The structuralist perspective on development is closely associated with Latin-American authors from the Economic Commission for Latin America (ECLA), who questioned the liberal orthodoxy theses that support the freedom of exchange to all countries and the international



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specialization according to the principle of comparative advantage. Pessimism about international relations is attributed to the trend of deteriorating terms of trade as seen from the primary exporters' perspective; this thesis developed by Prebisch (1949) [15] and Singer (1950) [16] in a world divided into centre and periphery. According to these authors, the initiation of an industrialization process for peripheral countries cannot be based on international markets – also because it would become more and more difficult overtime and the terms of trade would further deteriorate. Import substitution is therefore advocated as the major strategy for developing these countries.

Structuralist considerations on dependency are made explicit in the work of Furtado (1973) [17] and Sunkel (1973) [18]. The crucial points of the structuralist thinking can be summarized as follows: (i) the object of development is the structural transformation of underdeveloped economies and, not just an expansion of economic activity using more advanced production technologies, but also a change in the sectoral composition of total output. These are the two main features of economic development; (ii) the existing structures of underdeveloped economies are historically determined by the manner in which these economies have become incorporated into the international economy and, as a consequence, they are dualistic economic structures, with the modern sector oriented to production of primary products for export in exchange for manufactured products; (iii) under these conditions, underdeveloped economies are incapable of generating their own growth dynamic or of achieving economic development, and thus it is necessary to break away from the reliance on foreign demand for primary exports as the engine of growth and focus on the development of a diversified domestic industrial sector instead; (iv) the State has a crucial role in this process of structural transformation through the adoption of an import-substituting industrialization strategy (ISI) (Hunt, 1989 [14]).

(ii) The neo-Marxist perspective

The expression development of underdevelopment defines the central thesis of Frank (1967) [19], denoting that underdevelopment is not a natural condition, but an artifact created by the colonial domination experience of Third World countries. The author presents a pyramidal structure with metropolises and satellites through which the economic surplus (in the form of raw materials, minerals, profits) is extracted from Third World villages to local capitals, to regional capitals, to national capitals and finally to the cities of Western countries. Frank argues that this transfer mechanism of economic surplus has produced underdevelopment in the former and development in the latter and thus suggests that the best development strategy for Third World countries is “de-linking from the world market”.

Dos Santos (1970) [20] defines dependence as ‘a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the former is subjected’ (Dos Santos, 1970: 271 [20]). These relationships of interdependence are unequal, because development of dominant countries takes place at the expense of dependent ones. Dos Santos identifies three historical forms of dependence – colonial dependence, financial-industrial dependence, and technological-industrial dependence (or new dependence). The author dedicates special attention to the third one, which emerges after the Second World War and is associated with the beginning of the industrial development process of many underdeveloped countries. According to Dos Santos, these numbers of dependence relationships “place fundamental limits on the scope for development”, especially the new



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dependence, which makes industrial development dependent on the existence of an export sector, influenced by fluctuations of the balance of payments (leading to a deficit), and strongly conditional on the technological monopoly exercised by centre countries.

Amin's (1976) [21] transition analysis to peripheral capitalism is based on two types of economies, mainly classified in terms of their productive structure – an auto-centric centre economy and a dependent peripheral economy. Amin states that the structure of production inherent in peripheral countries – namely the predominance of an over-developed export sector and a near or even complete absence of both a capital goods industry and a sector manufacturing goods for mass consumption – is the result of the domination of centre countries. Subsequently, 'peripheral capitalism is unable to attain auto-centric and auto-dynamic economic growth without challenging the domination of foreign monopolies and central capitalism' (So, 1990: 103 [22]).

In spite of the diversity that characterizes the different approaches of the dependency school, one can identify a set of fundamental shared ideas: (i) dependency is a condition imposed from the outside, that is, the main obstacles to the development of peripheral countries are not internal in nature, but rather centred in the historical heritage of colonialism and the perpetuation of an unequal international division of labour; (ii) dependency is mostly an economic condition, i.e. a result of the economic surplus transfer from Third World countries to capitalist countries; (iii) underdevelopment in the periphery and development in the centre are two sides of the same process of capital accumulation, leading to regional polarization in the global economy; (iv) genuine development in the periphery is a highly unlikely scenario due to the continual flow of surplus to the core (So, 1990 [22]).

(iii) The new dependency of F. H. Cardoso and his followers

In contrast to classical dependency theories, a new set of contributions to dependency analysis emerges during the 1970s and is associated with the work of Cardoso and Faletto (1979) [23]. Development in dependency synthesizes the main perspective of the new dependency theory, which combines two notions not likely to be reconciled – dependency and development. Cardoso and Faletto maintain a kind of development that can be brought about in Third World countries, even the most successful ones, that does not correspond to the development pattern in capitalist countries, but rather to development in dependency. Cardoso (1973) [24] states that, to some extent the interests of foreign companies become compatible with the internal prosperity of dependent countries and, in this sense, they help to promote development, because of the rise of multinational companies, the immersion of industrial capital into peripheral economies, and a new international division of labour. However, this dependent development leads to an unbalanced and distorted production structure, that is, peripheral economies lack "autonomous technology", are compelled to use imported technology (bearing the consequences of absorbing capital-intensive technology), and lack a developed capital-goods sector.

The World-System Theory of I. Wallerstein

During the 1970s, a group of researchers led by Wallerstein presented a critical view on the contrasting theses of both previous schools (modernization and dependency), although having a theoretical heritage with the latter school. The departure from these theoretical approaches resides in the proposal of a systemic view on development that takes into account



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the historical dynamic of the privileged unit of analysis, the world-system. Indeed, not just should the development of a country be perceived in the context of the whole world-system, but also history, development, and underdevelopment should be seen from a dynamic concept characterized by cyclical rhythms and secular trends.

Wallerstein (1974, 1979, 1980 [25] [26] [27]) conceived the world-system as a system comprising three layers – the core, the periphery, and the semi-periphery – in which the last stands in between and exhibits features of both the core and the periphery. The three-tiered model and the historical basis of the analysis make it possible for a periphery moving into the semi-periphery or a semi-periphery moving into the periphery. According to Wallerstein, ‘success in moving from periphery to semiperiphery depends on whether the country can adopt one of the following strategies of development: seizing the chance, promotion by invitation, or self-reliance’ (So, 1990: 182 [22]). He also adds that ‘the key to peripheral breakthrough is that a country must have a market available that is large enough to justify an advanced technology, and for which it must produce at a lower cost than the existing producers’ (So, 1990: 184 [22]).

In contrast to the dependency school, Wallerstein and his followers criticize a bimodal concept of the world-system, apart from the deterministic statement that a periphery is bound to have underdevelopment or dependent development. Indeed, ‘whereas dependency theory offered only one solution out of the prevailing power relations, namely moving out, world-system theory offered one more option, namely moving up or down the hierarchy within the prevailing world system’ (Booyesen-Wolthers, 2007: 7 [28]).

In brief, under the framework of the world-system theory, the semi-periphery concept breaks off both the optimism and the pessimism of the previous theoretical approaches – modernization theories and dependency theories, respectively – by opening the possibility to vertical mobility of economies. The outcome depends on the dynamics of capital accumulation worldwide and the historical contingencies and positioning of the different countries.

Neoclassical Counter-Revolution

Critics to the prevailing development orthodoxy in the late 1950s and early 1960s – Latin-American structuralism and modernization – came from both the neo-Marxist tradition and the tradition of neoclassical economics. Bauer and Yamey (1957) [29] are among the pioneer investigators in the application of the neoclassical perspective – in particular, the philosophy of *laissez-faire* and the principle of comparative advantage – to the causes of (and constraints to) the economic development of Third World countries.

The revival of the neoclassical thinking centres on the analysis of the relationship between the State and the market in the process of economic development, and is associated with a critical view on State activism, predominant since the early development economics literature. Therefore, it ends up as a neoclassical counter-revolution in economics policy and theory.² Whereas dependency theorists saw underdevelopment as an externally induced phenomenon, the neoclassical authors saw it as a problem with internal causes, namely an excessive government intervention and bad economic policies.

² The neoclassical counter-revolution is an expression popularized to characterize the neoclassical incoming into the field of development economics, namely to express the radical change that it brought to the prevailing thinking.



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(i) 1st wave – the free-market approach

The first of the two waves of neoclassical attack, initiated in the 1970s, explains underdevelopment as a result of poor resource allocation due to incorrect pricing policies and excessive State intervention. Developing countries usually have prices of agricultural products artificially low, exchange rates overvalued, interest rates artificially low, and industrial wage levels excessively high in relation to agricultural wages. This results in a distorted pattern of resource allocation and, subsequently, efficiency and welfare reduction. A strategy of getting prices right based on a free functioning of the markets will thus lead to both economic efficiency and economic growth.

The analyses of McKinnon (1973) [30] and Shaw (1973) [31] reveal that distortions in the financial system encompass interest rate ceilings (below market rates) and compulsory credit allocation, both being detrimental to investment and growth in developing economies. Moreover, neoclassical theorists of international trade such as Krueger (1974) [32] and Bhagwati (1982) [33] maintain that government intervention in developing economies is conducive to rent-seeking activities and, in general, directly unproductive profit-seeking activities that impose resources waste.

(ii) 2nd wave – the public choice approach

In the 1980s, the neoclassical reaction culminates in the view that the State is the problem of (not the solution for) underdevelopment. A minimal role for government in the economy is the best for the promotion of development.

According to the public choice theory, the State is not a kind of social guardian of benevolence, but rather is formed by a number of politicians, bureaucrats and technocrats, that act in their self-interest using the power and the authority of government for their own ends. Krueger (1990) [34] highlights that State intervention and protectionism in developing countries tend to be associated with rent-seeking behaviour, pressure from personal interests and conflicting groups of interest, bureaucratization, and corruption.

The neoclassical counter-revolution's approaches of free-market and public choice matched with the so-called Washington consensus materialized in structural adjustment programs to indebted Third World countries in the 1980s. The pattern of action was based on precepts that stimulated both economic efficiency and economic growth, namely 'permitting competitive free markets to flourish, privatizing State-owned enterprises, promoting free trade and export expansion, welcoming investors from developed countries, and eliminating the plethora of government regulations and price distortions in factor, product, and financial markets' (Todaro and Smith, 2000: 128 [35]).

(iii) The market-friendly approach

A new variant of the neoclassical counter-revolution emerges in the early 1990s from the writings of World Bank economists who re-examine their theoretical positioning regarding the role of the State in the economic development process. The 1997 WDR marks a shift in the concept of the State, that is, 'the State is central to economic and social development, not as a direct provider of growth but as a partner, catalyst, and facilitator' (World Bank, 1997: 1 [36]).

The repositioning is directly associated with a change in development thinking from market supremacy to a more balanced perspective, in which the relationship between the State and the market is seen as complementary with the two working in partnership. Minimal State is



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replaced by effective State, i.e. a State working as a complement (not a substitute) to markets. Therefore, the State not just undertakes those actions that make markets fulfil their functions better, but also corrects for market failures.

The market-friendly neoclassical approach differs from the two previous ones (free-market and public choice) in two crucial aspects. On the one hand, there is the recognition of numerous imperfections in factor and product markets of developing countries. On the other hand, market failures are more common in these countries and can occur in such cases as incomplete markets, imperfect information, externalities, or economies of scale.

3. New Concepts of Development

The new concepts of development that emerge mainly after the 1970s do not deny the importance of economic growth to development. Instead, they emphasize that, though necessary, it is insufficient to assure development, encompassing a set of inter-actuated dimensions, mainly economic, social, political, cultural, and environmental in nature.

Different views on the concept contribute to the new conception of development, multi-dimensional in nature. Moreover, the diversity of its inter-related components presupposes an interdisciplinary approach.

Sustainable Development

The eco-development concept emerges in the early 1970s, following two major events having a decisive influence over the concerns on the environment and development – the first conference of the United Nations on environment and development (the Conference of Stockholm in 1972) and the study ordered by the Club of Rome on the compatibility between the strategic resources reserves and growth rhythms (Meadows and Meadows, 1972 [37]). Eco-development is at the basis of the latter concept of sustainable development, because central to eco-development is the need to take care over future development by avoiding destruction in the present of non-renewable resources.

Sustainable development is a concept that follows from the Brundtland Report, finished in 1987 and published by the World Commission on Environment and Development (WCED) of the United Nations. The definition from that report is the most widely used: ‘development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs’ (WCED, 1987: 43 [38]). Sustainable development requires availability of resources for future generations and thus assumes inter-generational solidarity.

Sustainability is also about natural resources management. At the beginning, this meant solely the management of non-renewable resources (oil, minerals, and strategic resources in general). Later, sustainable development also became associated with managing renewable resources (for instance, the environmental services from solar radiation), due to their quality / renewal rhythm. Moreover, sustainable development presumes a new relation with Nature based on systemic interdependence, that is, to embrace containment logic in the interaction between economy and ecology defined by a sustainable rhythm of balance between inputs, throughputs and outputs.

The sustainable development concept has been widely used since the second conference of the United Nations on environment and development. The Rio Conference (also known as



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Earth Summit or Eco-92) gave the international visibility to the concept. Today, it is entirely accepted by different international organizations, governments of many countries, and Non-Governmental Organizations (NGO) that play a role in that field. On the other hand, the Johannesburg Conference (or Rio+10) which took place in 2002, diminishes the paramount importance given to the environmental component, and subsequently stresses a tri-part view of sustainability: economic viability, environmental preservation, and social cohesion.

Local Development

The communitarian development concept was born in the 1960s and is the origin of the local development concept. This latter concept gathers the following three important pillars from the former: an acquaintance of people's needs from their own voices, the mobilization of local capacities as the starting point for the answers to their problems and an integrated view of the problems and solutions.

There was a proliferation of formulations that followed the alternative concept of communitarian development and in the end led to the concept of local development. The definition of local development presented by authors such as Pecqueur (1989) [39] or Houé (2001) [40] includes many elements. In the first place, local development is a process of community based change that usually has collective needs as its starting point and whose answers are to be found first by making use of local capacities. Indeed, local development is founded in the territorial paradigm of regional economics and territory sciences, in which the diversity of infra-national territories demands a concept of development that, apart from taking into account the resources available and the local needs, is also differentiated and multiform, and also departs from the endogenous potential in resources and capacities. The new paradigm of development in the territory is thus a kind of development that takes place from more confined spaces, from below.

Local development also requires a participative logic, in which the importance of local communities' participation in solving their problems and valuing the local resources is highlighted. The reinforcement of people and communities' power through the enhancement of their capacities (empowerment) is a condition for participation and leadership. This is an aspect further developed by Friedmann (1992) [41]. However, local development is not regarded as self-sufficient, and thus the use of exogenous resources is not rejected as long it complements or strengthens endogenous resources.

An integrated view of the context in which the problem is raised and of the appropriate answers is another key component of the concept. This demands partnership logic, a working involvement between formal and informal institutions, companies, citizens, and public administration, with an engagement and direct participation of all, and the will to ambition affect the entire community.

Human Development

The origin of the human development concept can be traced back to the 1970s and the claim for basic needs fulfillment as the most important development evaluation criteria advanced by former institutional leaders, namely Mahbub ul Haq from the International Labor Organization (ILO) and Robert McNamara from the World Bank.



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The discussion on the concept of human development and its interlinked concept of basic needs was presented in 1990 by the United Nations Development Program (UNDP), according to which human development is:

'a process of enlarging people's choices. In principle, these choices can be infinite and change over time. But at all levels of development, the three essential ones are people to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living. If these essential choices are not available, many other opportunities remain inaccessible' (UNDP, 1990: 10 [42]).

Today, the human development concept is wider and much more complex than the original one. Apart from the three crucial components of human development, it has been extended to include other dimensions such as freedom, equal opportunities, sustainability, and safety.³ Human development is a process of enlarging people's choices and opportunities, of expanding human freedoms and of valuing individuals' capacities that allow them to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living, while preserving these same benefits for future generations, with equal opportunities and in safety.

According to this new development perspective, the adjective "human" gathers three different meanings: (i) the human being is at the centre; (ii) human well-being is the goal of development; (iii) the human being has an active role to play (participation). Thus, human development is a development process *of the, for the, and by* the human being.

Human development is also linked to the issue of "fighting against poverty" which assumed a crucial dimension with the Millennium Summit of the United Nations in 2002. In that summit, 'a pact between nations to defeat human poverty' (UNDP, 2003: 31) [44] was made and the so-called Millennium Development Goals (MDG) established. Poverty is indeed the absence of human development, i.e. the denial of the most elementary choices and opportunities.

4. Final Remarks

The analysis of a complex phenomenon such as development is especially difficult due to its multi-dimensionality. The central purpose of this article is to present an integrated perspective of the main contributions of Development Economics, focusing on: (i) the optimistic perspective of the modernization theories aiming to determine the endogenous conditions of modernization; (ii) the more pessimistic vision of dependence theories, emphasizing the existence of external barriers to development; (iii) the world-system theory, seeking an integrated vision of the different economies in a world-wide context; (iv) the neoclassical counter-revolution, with its critical evaluation of the role of government, later on redefined in order to emphasize the complementarity between the State and the market.

Beyond all this it is possible to recognize the limitations of a concept exclusively centred on the economic dimension. Thus, many concepts have emerged aiming to make more explicit

³ Sen (1999) [43] conceives development as freedom in a large sense, including elementary capacities such as the possibility to avoid privations such hunger, under-nutrition, avoidable death, premature death, and also freedoms associated with education, political participation, and censorship forbiddance.



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the relevance of other dimensions of the development process, namely the social, human, local and environmental, among others. This range of new concepts has led to three broad conceptual approaches – sustainable, human, and local development.

Although not diminishing the importance of the emergence of new concepts and theoretical perspectives, we believe that the main challenge facing the evaluation of development is the need to transpose empirically the multi-dimensionality present in the concept of development. This requires traditional development indicators (namely per capital income) to be complemented with other more comprehensive indicators.

The generality of the indicators proposed over the last two decades do not capture all of the crucial dimensions of the phenomenon. Therefore, the emergence of new development indices is important, incorporating, in an innovating and comprehensive way, the many dimensions of development. The importance of an appropriate measurement of the critical phenomenon of development is of high priority.

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**COMPOSITE INDICATORS OF DEVELOPMENT –
THE IMPORTANCE OF THE WEIGHTS**

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Abstract

Measuring countries' levels of development is one of the most complex tasks in economics. The recognized multidimensionality of the phenomenon has increasingly led to the use of composite indicators in order to overcome the limitations usually identified in such measures as the income per capita (Bandura, 2008 [1]; Saisana, 2008 [2]). Using indicators such as this to assess development raises two crucial issues. On the one hand, one needs to identify the dimensions of development for each indicator as well as the content of each dimension. On the other hand, one also needs to assign weights to each dimension in order to have an aggregated indicator.

This second issue has drawn little attention in the literature, and usually equal weights are attributed to all the dimensions of a given indicator. In the absence of any systematic analysis of their correspondence to the public perception regarding the importance of each dimension of development, these weights are arbitrarily fixed. This is so despite the fact that individuals are the ultimate beneficiaries of countries' development. The present paper seeks to close this gap in the literature, discussing in an explicit manner, the importance of the weights of each dimension of development.



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Using a public-opinion survey conducted in Portugal, we evaluate the importance of the main dimensions of development and examine if the dimensional weights depend on individual characteristics of the respondents, such as gender, age, or educational level. The evidence suggests that both education and health regularly stand out as the most highly-rated factors.

1. Introduction

Measuring and quantifying development makes increasing use of composite indicators. This raises the issue of the determination of the proper weighting of the various dimensions considered. The present paper aims to answer three research questions based on responses to a survey conducted in Portugal. First, do the results of the survey sustain the predominant adoption in the literature of equal weights for several issues affecting a country's development? Second, does the importance of the different dimensions of development vary according to individual characteristics of the respondents, such as gender, age, or educational level? Third, does any relationship emerge between the different dimensional weights?

The paper is structured in six sections. Section 2 discusses the progressive enlargement of the concept of development as well as the importance of its composite measurement approach. Section 3 proposes a development nomenclature and discusses the issue of the weights by evaluating the importance that the Portuguese public opinion attributes to each dimension. Section 4 compares the results identified in section 3 with what has been most frequently adopted in a broad set of available composite indicators. Section 5 evaluates the relevance of some conditioning factors to the weights obtained in section 3. Section 6 investigates the relationships between the different dimensions of development. Section 7 presents some final remarks.

2. The Relevance of the Composite Measurement of Development

Development is undoubtedly one of the most discussed concepts in economics. For many years, and especially since the end of the Second World War, development of countries has been evaluated almost exclusively in terms of their level of economic growth. Economic growth has been seen as a necessary and sufficient condition to development and, therefore, improvement in the well-being of the population has been viewed as relying on it. Regarding the quantitative assessment of a country's level of development, the more immediate implication of this strict link between the two concepts is the heavy reliance on indicators of economic activity, notably the level of income per capita.

However, since the 1970s a decisive turning point in the practices and approaches to development has led to the emergence of new and broader concepts of development. These new concepts are couched mainly in an interdisciplinary and multidimensional perspective, spawning the current concepts of sustainable, local, participative, human, and social development.

In the same vein, several attempts have been advanced to amend, complement, or replace the income per capita as a summary measure of development, and in turn, the approach to measuring development has progressively evolved from a uni- to a multi-dimensional character. Composite indicators of development have gained great importance as a result, and many have



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appeared in recent years, allowing for a more textured assessment of the phenomenon of development (Booyesen, 2002 [3]; Bandura, 2008 [1]; Saisana, 2008 [2]).

Composite indicators are mathematical combinations of a set of indicators. Their extensive use has led to a spirited debate over the conceptual and methodological arguments in favor of and against this measurement approach. In a detailed analysis of the relevance of these types of indicators, Booyesen (2002) [3] stresses some of their most important limitations: (i) composite indicators always exclude one or more essential elements of the domain at issue; (ii) particular components of the index may be quantified with the aid of different variables (possibly better ones); (iii) composite indicators may be unable to reveal more than what a single variable alone reveals; (iv) the selection process of the variables may be *ad hoc*, which is to say, politically or ideologically motivated, or simply determined by the availability and accuracy of data; (v) the data employed in composite indicators are often inaccurate and non-comparable; (vi) often no clear rationale is presented for the selected weighting and aggregation techniques; (vii) composite indicators may lack practical value if they give no specific and focused policy advice.

However, many elements in favor of composite indicators exist as well, mainly the following (Saisana and Tarantola, 2002 [4]): (i) composite indicators synthesize complex or multidimensional issues; (ii) they are easier to interpret than a battery of separate indicators; (iii) they facilitate the task of comparing the performance across countries and their progress over time, and thereby attract public interest; (iv) they reduce the size of a list of indicators without losing basic information. The main advantage of composite indicators is, indeed, their multidimensionality, since they represent aggregate and relatively simple measures of a combination of components of complex phenomena (Booyesen, 2002 [3]).

Currently, a considerable variety of composite indicators have been proposed to quantitatively assess the performance of countries in terms of development.¹ These development indicators are employed with the aim of measuring the main constituents of the phenomenon, thereby reflecting its multidimensional nature. Many proposals of disaggregation of the phenomenon into its main dimensions exist in the literature.²

3. The Importance of Dimensional Weights – Findings from Portugal

Based on the criteria of intrinsic relevance and recurring inclusion in alternative attempts of development disaggregation, we propose a nomenclature that disaggregates development into eight dimensions encompassing crucial features that determine the level of countries' development: (i) income; (ii) income distribution (inequality and poverty); (iii) education; (iv) health; (v) employment (in quantitative as well as qualitative terms); (vi) infrastructure; (vii) values (economic freedom, socio-political liberty, including the political regime, corruption, and respect for human rights); (viii) environment.

We have conducted a small survey in order to measure the importance of each of the above dimensions. The questionnaire contained a brief description of the key elements of each

¹ Even though some proposed indicators might not have the direct purpose of measuring development, they are likely to be interpreted as such.

² See, for instance, Booyesen (2002) [3].



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dimension, and individuals were asked to indicate their opinion of the relative importance of each dimension to the development of a given country. Additionally, certain characteristics of the respondents were collected (gender, age, and level of education). The survey was conducted between April and July of 2010 and included a total sample of 2892 observations.

Table 1 presents the overall findings, highlighting for each dimension the average, the standard deviation, the maximum value, the number of responses with zero weight to that dimension, the distance from the average (which is 12.5%), and the number of observations above the average. We have designated the best situation in bold and the worst situation in italics.³

Table 1

Dimensional weights – global results

Dimension	Average	Standard deviation	Max.	No. of zeros	Distance from average	% of obs. above average
Income	<i>12.11%</i>	1.47	40.82%	4	<i>-0.39 p.p.</i>	36.65%
Income Distrib.	12.14%	1.57	68.97%	<i>15</i>	<i>-0.36 p.p.</i>	43.05%
Education	13.35%	1.16	46.15%	2	0.85 p.p.	72.10%
Health	13.06%	1.06	35.00%	1	0.56 p.p.	65.21%
Employment	12.61%	1.13	30.43%	1	0.11 p.p.	52.84%
Infrastructure	12.16%	1.24	36.59%	2	<i>-0.34 p.p.</i>	<i>36.62%</i>
Values	12.32%	1.40	30.61%	6	<i>-0.18 p.p.</i>	44.40%
Environment	12.26%	1.26	<i>29.94%</i>	4	<i>-0.24 p.p.</i>	43.71%

As Table 1 reveals, the difference between the weights assigned to the different dimensions is not very great, thereby supporting the option frequently adopted in the literature of applying equal dimensional weights to all included dimensions. However, a more in-depth analysis of the survey's findings points to some additional messages of interest. We emphasize three of them.

First of all, two dimensions – education and health – are identified as being more relevant than the others. If we use the number of responses above the average (12.5%) as the analysis criterion, this finding is very clear. Indeed, with regard to education, 72.10% of the respondents assigned a weight above the average. The value for the health dimension is 65.21%, and employment is the other dimension to which more than half of the respondents attributed an importance greater than the average (52.84%). On the other hand, only 36.62% of the respondents evaluated infrastructure as greater than the average.

Second, the results for income distribution (inequality and poverty) should also be pointed out. That dimension presents the greatest disparity of responses as evidenced by the largest standard deviation, the largest number of responses that assigned a zero weight to that dimension, and finally, by including the response that attributed the greatest weight to any dimension (68.97%).

Third, the income dimension has – somewhat surprisingly – a low weight, which seems to support the notion that evaluating development focused exclusively on that dimension is clearly

³ We adopt this procedure in all of the tables presented in this study.



reductive and does not correspond to the perception that public opinion has about the fundamental components of the process of development.

4. The Dimensional Weights in the Measurement of Development

Let us now compare the findings above to those reported in the literature. The first of the three research questions posed in the Introduction can be further subdivided into two parts:

(i) Do the most valued dimensions (revealed in our survey) correspond to those most frequently included in composite indicators of development?

(ii) Do the weights found correspond to those applied in the main composite indicators of development (as reported in the literature)?

This section seeks to answer these two questions. To achieve this, we follow a four-step procedure. First, we identify surveys and other recent studies that include a list of composite indicators of development. Second, we establish a selection criterion for the indicators included in those studies. In particular, we consider the indicators that simultaneously include at least two of the different proposed dimensions and are mentioned in at least two of the selected studies.⁴ Third, the selected indicators are analyzed in order to identify the dimensions included in each indicator. Fourth, we evaluate the weights adopted in each case.

The studies selected for the first step are the following: (i) Booyen (2002) [3]; (ii) Morse (2004) [5]; (iii) Gadrey and Jany-Catrice (2007) [6]; (iv) Goossens *et al.* (2007) [7]; (v) Afsa *et al.* (2008) [8]; (vi) Bandura (2008) [1]; (vii) Eurostat (2008) [9]; (viii) Saisana (2008) [2]; (ix) Soares and Quintella (2008) [10]; (x) Singh *et al.* (2009) [11]. Applying the selection criterion presented in the second step led to the choice of 54 composite indicators of development. In the third step we identified the dimensions of development included in each of the 54 indices selected, in order to address the first question presented above. Table 2 summarizes the results of this procedure.

Table 2

No and % of composite indicators taking into account each dimension of development

Dimension	No and %
Income	24 (44.4%)
Income Distribution	14 (25.9%)
Education	37 (68.5%)
Health	35 (64.8%)
Employment	22 (40.7%)
Infrastructure	27 (50.0%)
Values	26 (48.1%)
Environment	19 (35.2%)

As Table 2 reveals, the two dimensions most often included in composite indicators of development are also those that seem most valuable in the public opinion according to the

⁴ The purpose of the mentioned criterion is to identify the most representative indicators and thereafter discard the least consolidated contributions in the literature.



findings of our survey – education and health. The greatest discrepancies between the findings of the survey and the inclusion of dimensions in indices of development are seen in the infrastructure and income dimensions. Both are deemed to be less valuable in the public opinion than the frequency with which they are considered in the 54 indices of development would lead one to believe. The opposite is observed with the employment and environment dimensions, which our survey finds to be more valuable in the public opinion.

We turn now to the second part of the question. Upon analyzing the weighting methods employed in the 54 composite indicators of development, four alternative methodologies stand out.

The first option (EW) is to employ equal weighting (i.e., not to use differentiated weights, at all). In this option, the composite indicator is determined by the simple average of the corresponding indicators, which, in turn, might be simple or composite in nature.

Where dimensional weights are employed in a differentiated manner, the literature offers a variety of weighting methods, usually segregated into two broad categories – statistical methods (option two) and participatory methods (option three) (OECD and European Commission, 2008)[12]. In option two, statistical techniques of multivariate analysis, such as the principal component analysis or the factor analysis, are of particular interest. Both methods group individual indicators according to their correlation degree. Option three (participatory methods) are based on expert or public opinion, and methodologies known as budget allocation (BA) or public opinion (PO) are well-known examples.

The fourth option is to employ unequal weightings based on an *ad-hoc*/subjective process that is based on authors' (experts') opinion and/or intuitive appeal.

Table 3 summarizes the methodology used in each of the 54 composite indicators of development considered in the present section.

Table 3

Methodology of composite indicators of development

Author/Organization ¹	Composite Indicators of Development ²	Weighting Methods					Ad-hoc / Subjective
		EW ³	Statistical methods		Participatory methods		
			PCA/FA ³	Others ³	BA ³	PO ³	
Bennett (1951) [13]	Index of relative consumption levels	X					
Beckerman e Bacon (1966) [14]	Index of relative real consumption per head			X			
McGranahan <i>et al.</i> (1972) [15]	General index of development			X			
Nordhaus and Tobin (1972) [16]	Measure of Economic Welfare (MEW)	X					
Morris (1979) [17]	Physical Quality of Life Index (PQLI)	X					
Zolotas (1981) [18]	Economic Aspects of Welfare (EAW)	X					
Ram (1982) [19]	Indices of "overall" development	X					
Commission of the European Communities (1984) [20]	Relative intensity of regional problems in the community			X			
Ginsburg <i>et al.</i> (1986) [21]	World standard distance scales	X					
Camp and Speidel (1987) [22]	International human suffering index	X					
Slotlje (1991) [23]	Aggregate indexes of quality of life	X	X	X			



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Author/Organization ¹	Composite Indicators of Development ²	Weighting Methods					Ad-hoc / Subjective
		EW ³	Statistical methods		Participatory methods		
			PCA/FA ³	Others ³	BA ³	PO ³	
Diener (1995) [24]	Quality of life indices	X					
Estes (1998) [25]	Weighted Index of Social Progress (WISP)		X				
Goedkoop and Spruiensma (2001) [26]	Eco-indicator 99				X		
Prescott-Allen (2001) [27]	Wellbeing Index (WI) e Wellbeing/Stress Index (WSI)	X					X
Randolph (2001) [28]	G-Index						X
UNDP (2001) [29]	Technology Achievement Index (TAI)	X					
Tarantola <i>et al.</i> (2002) [30]	Internal Market Index World (IMI)				X		
Smith (2003) [31]	Index of Economic Well-Being (IEWB)	X					X
Tsoukalas and Mackenzie (2003) [32]	Personal Security Index (PSI)	X				X	
UN <i>et al.</i> (2003) [33]	Green GDP or Environmentally adjusted NDP (eaNDP)	X					
Hagén (2004) [34]	Welfare index	X					
NISTEP (2004) [35]	General Indicator of Science and Technology (GIST)		X				
Porter and Stern (2004) [36]	National innovative capacity index	X		X			
The Economist (2004) [37]	Quality-of-life index			X			
European Commission (2005) [38]	Investment in the knowledge-based economy	X					
European Commission (2005) [38]	Performance in the knowledge-based economy	X					
Marks <i>et al.</i> (2006) [39]	Happy Planet Index (HPI)	X					
Sbilanciamoci (2006) [40]	Regional Quality of Development Index (QUARS)	X					
World Bank (2006) [41]	Adjusted net saving or Genuine saving	X					
ATK/FP (2007) [42]	A. T. Kearney/FOREIGN POLICY Globalization Index						X
Gwartney and Lawson (2007) [43]	Economic Freedom of the World (EFW) index	X					
Miringoff and Opdycke (2007) [44]	Index of social health	X					
Talberth <i>et al.</i> (2007) [45]	Genuine Progress Indicator (GPI)	X					
UNDP (2007) [46]	Human Development Index (HDI)	X					X
UNDP (2007) [46]	Human Poverty Index (HPI-1) for developing countries	X					
UNDP (2007) [46]	Human Poverty Index (HPI-2) for selected OECD countries	X					
Bertelsmann Stiftung (2008) [47]	Bertelsmann Transformation Index (BTI)	X					X
Dreher <i>et al.</i> (2008) [48]	KOF index of globalization		X				
EIU (2008) [49]	E-readiness rankings						X
Esty <i>et al.</i> (2008) [50]	Environmental Performance Index (EPI)	X	X				
Holmes <i>et al.</i> (2008) [51]	Index of economic freedom	X					X
IMD (2008) [52]	World competitiveness scoreboard	X					X



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Author/Organization ¹	Composite Indicators of Development ²	Weighting Methods					Ad-hoc / Subjective
		EW ³	Statistical methods		Participatory methods		
			PCA/FA ³	Others ³	BA ³	PO ³	
Porter and Schwab (2008) [53]	Global Competitiveness Index (GCI)	X		X			X
Roodman (2008) [54]	Commitment to Development Index (CDI)	X					X
StC (2008) [55]	Mothers' index	X					X
van de Kerk and Manuel (2008) [56]	Sustainable Society Index (SSI)	X					X
Dutta and Mia (2009) [57]	Networked Readiness Index (NRI)	X					
EIU (2009) [58]	Business environment rankings	X					X
UNU-MERIT (2009) [59]	Summary Innovation Index (SII)	X					
Centre for Bhutanese Studies – website	Gross National Happiness (GNH) index	X					
Friends of the Earth – website	Index of Sustainable Economic Welfare (ISEW)	X					
Réseau d'Alerte sur les Inégalités (RAI) – website	Baromètre des Inégalités et de la Pauvreté (BIP40)						X
Social Indicators Department [n.d.] [60]	Index of individual living conditions	X					
Total (number of indices per method)		40	6	7	2	1	15

¹ In the case of revised indices, the last revision available (at table construction date) was used. In the case of indices periodically published, the last version available (at table construction date) was used. For some indices, the only information available is on the website, namely, the following: (i) GNH index – <http://www.grossnationalhappiness.com/>; (ii) ISEW – <http://www.foe.co.uk/community/tools/isew/>; (iii) BIP40 – <http://www.bip40.org/>

² The list encompasses indices that capture, at least, two dimensions of the development nomenclature – and are, thus, multidimensional indices of development – and, in addition, are mentioned in, at least, two of the selected studies. Development nomenclature: (i) income; (ii) income distribution; (iii) education; (iv) health; (v) employment; (vi) infrastructure; (vii) values; (viii) environment. Selected studies: (i) Booyesen (2002); (ii) Morse (2004); (iii) Gadrey and Jany-Catrice (2007); (iv) Goossens et al. (2007); (v) Afssa et al. (2008); (vi) Bandura (2008); (vii) Eurostat (2008); (viii) Saisana (2008); (ix) Soares and Quintella (2008); (x) Singh et al. (2009).

³ EW = Equal Weighting; PCA/FA = Principal Components Analysis or Factor Analysis; Others = Mainly procedures where components scores are weighted by their coefficients of correlation or regression; BA = Budget Allocation; PO = Public Opinion.

As can be seen in Table 3, the weighting method that is based on public opinion is rarely used – being present in only one of the 54 indices. The simplest method – EW – is the one most favored – being used in 40 of the 54.⁵ Note that the common procedure reported in the literature is not necessarily the option of no weighting, but rather that weights are, implicitly, equal.

In the most popular indicator for measuring development in a composite nature – the Human Development Index (HDI) – a weighting of 1/3 is attributed to each of its constituents –

⁵ The assignment of equal weights to all the dimensions might be followed by the option of unequal weighting for the possible sub-dimensions of each included dimension.



income, education and health. This stands in contrast to the findings of our survey, in which public opinion seems to place greater value on education and health, while de-emphasizing income.

5. Conditioning Factors of the Weights

Section 3 presented the overall findings of the survey conducted on dimensional weighting. The purpose of the present section is to evaluate whether or not these weights differ according to selected characteristics of the respondents: gender, age, and educational level. We start by comparing the dimensional weights assigned by men (1403 observations) and women (1480 observations). Table 4 presents the results.⁶

Table 4

Dimensional weights by gender

Dimension	Men			Women		
	Average	Distance from average	% of obs. above average	Average	Distance from average	% of obs. above average
Income	12.14%	-0.36 p.p.	37.63%	12.06%	-0.44 p.p.	35.54%
Income Distrib.	12.04%	-0.46 p.p.	41.12%	12.24%	-0.26 p.p.	43.92%
Education	13.46%	0.96 p.p.	75.91%	13.23%	0.73 p.p.	68.38%
Health	13.06%	0.56 p.p.	65.36%	13.06%	0.56 p.p.	65.07%
Employment	12.48%	-0.02 p.p.	48.97%	12.73%	0.23 p.p.	56.42%
Infrastructure	12.12%	-0.38 p.p.	37.56%	12.19%	-0.31 p.p.	35.61%
Values	12.44%	-0.06 p.p.	48.40%	12.22%	-0.28 p.p.	40.68%
Environment	12.26%	-0.24 p.p.	46.26%	12.27%	-0.23 p.p.	41.28%

The evidence in Table 4 confirms the importance given to both education and health by both women and men. 75.91% of men and 68.38% of women assigned a weight to education greater than the average. In comparative terms, we should mainly highlight the greater valuation that men attributed to both education and values (compared to women) and that women attributed to both employment and income distribution (compared to men), while the remaining dimensions show very similar values. The results also reveal the lower importance that women give to income, and men give to income distribution as components of a country's development.

We now examine the division of the sample according to age, considering four age groups: (i) up to and including 25 years of age; (ii) 26 to 39; (iii) 40 to 54; (iv) 55 and over. The data are in Table 5.⁷

⁶ Nine respondents did not identify their gender and thus were excluded from the analysis.

⁷ 292 respondents did not identify their age.



Table 5

Dimensional weights by age

Dimension	Up to 25			26-39		
	Average	Distance from average	% of obs. above average	Average	Distance from average	% of obs. above average
Income	12.53	0.03 p.p.	46.20%	12.04	-0.46 p.p.	35.44%
Income Distrib.	12.33	-0.17 p.p.	50.63%	12.10	-0.40 p.p.	43.12%
Education	13.20	0.70 p.p.	68.78%	13.36	0.86 p.p.	72.88%
Health	13.06	0.56 p.p.	68.35%	13.07	0.57 p.p.	66.40%
Employment	12.84	0.34 p.p.	60.76%	12.66	0.16 p.p.	53.76%
Infrastructure	11.93	-0.57 p.p.	33.97%	12.17	-0.33 p.p.	38.00%
Values	12.02	-0.48 p.p.	39.24%	12.35	-0.15 p.p.	46.08%
Environment	12.08	-0.42 p.p.	43.46%	12.25	-0.25 p.p.	42.64%

Dimension	40-54			55 and over		
	Average	Distance from average	% of obs. above average	Average	Distance from average	% of obs. above average
Income	11.99	-0.51 p.p.	33.98%	11.85	-0.65 p.p.	32.08%
Income Distrib.	12.26	-0.24 p.p.	40.06%	11.77	-0.73 p.p.	38.23%
Education	13.38	0.88 p.p.	71.51%	13.45	0.95 p.p.	73.04%
Health	12.96	0.46 p.p.	62.02%	13.26	0.76 p.p.	63.14%
Employment	12.43	-0.07 p.p.	45.99%	12.60	0.10 p.p.	56.66%
Infrastructure	12.21	-0.29 p.p.	35.46%	12.25	-0.25 p.p.	38.57%
Values	12.41	-0.09 p.p.	45.10%	12.49	-0.01 p.p.	44.03%
Environment	12.36	-0.14 p.p.	42.73%	12.34	-0.16 p.p.	47.78%

As seen in Table 5, education is always regarded as the most important component in the process of a country's development, no matter what age group is responding, even though the importance attributed increases with the age of the respondent. The relative weights of both values and infrastructure go in the same direction. Inversely, the greater the age, the lower is the weight attributed to income. If we compute the correlation coefficient between the age of the respondents and the weights they assigned to each dimension of development, we obtain a negative association for income, income distribution, and employment. The relative importance of these dimensions is thus greater for the younger population. A positive correlation is present for the remaining dimensions.

Finally, we disaggregate the sample according to the schooling level. For this we consider four categories: (i) up to and including 9 years of education; (ii) 10 to 12 years; (iii) with an undergraduate degree; (iv) with a post-graduate degree, i.e., Masters, or Doctoral Degree. The data are in Table 6.⁸

⁸ Eleven respondents did not identify their educational level.



Table 6

Dimensional weights by educational level

Dimension	Up to 9 years			10-12 years		
	Average	Distance from average	% of obs. above average	Average	Distance from average	% of obs. above average
Income	11.87	-0.63 p.p.	41.46%	12.34	-0.16 p.p.	40.57%
Income Dist.	<i>11.64</i>	<i>-0.86 p.p.</i>	40.00%	12.27	-0.23 p.p.	43.41%
Education	13.71	1.21 p.p.	69.27%	13.16	0.66 p.p.	65.11%
Health	13.64	1.14 p.p.	66.83%	13.09	0.59 p.p.	64.27%
Employment	12.59	0.09 p.p.	58.54%	12.70	0.20 p.p.	54.76%
Infrastructure	12.26	-0.24 p.p.	43.90%	12.08	-0.42 p.p.	<i>34.39%</i>
Values	12.21	-0.29 p.p.	<i>39.02%</i>	<i>12.02</i>	<i>-0.48 p.p.</i>	<i>34.39%</i>
Environment	12.08	-0.42 p.p.	45.85%	12.34	-0.16 p.p.	45.58%

Dimension	Undergraduate degree			Masters, or Doctoral degree		
	Average	Distance from average	% of obs. above average	Average	Distance from average	% of obs. above average
Income	12.22	-0.28 p.p.	<i>37.04%</i>	<i>11.89</i>	<i>-0.61 p.p.</i>	<i>32.64%</i>
Income Dist.	<i>12.09</i>	<i>-0.41 p.p.</i>	41.52%	12.27	-0.23 p.p.	45.43%
Education	13.22	0.72 p.p.	69.51%	13.52	1.02 p.p.	80.04%
Health	12.93	0.43 p.p.	63.95%	13.02	0.52 p.p.	66.94%
Employment	12.65	0.15 p.p.	53.99%	12.49	-0.01 p.p.	48.86%
Infrastructure	12.23	-0.27 p.p.	37.40%	12.10	-0.40 p.p.	35.34%
Values	12.33	-0.17 p.p.	45.02%	12.52	0.02 p.p.	51.14%
Environment	12.33	-0.17 p.p.	44.04%	12.18	-0.32 p.p.	41.58%

Table 6 reveals some interesting results. Respondents with intermediate levels of schooling (the categories of “10 to 12 years of schooling” and “with an undergraduate degree”) attributed greater importance to income. The same is found for both employment and environment, even though the difference between these two groups of schooling level and the remaining two is now less significant. As expected, the highest educational level group gave a very high weight to education, with 80.04% of the respondents in this group assigning a relative weight greater than the average.⁹ There is also a strong depreciation of the income dimension in this group.

⁹ A conventional practice of selecting weights in a participatory manner is by following the consultation of experts. Given that the higher educational level group proxies experts, a closer inspection of the perception it has on the fundamental components of the process of development would be valuable and very welcome.



6. Is There a Relationship between Weights?

In the sections above we analyzed how the respondents evaluated each of the different dimensions of development. In this section we investigate what type of relationship exists between the several dimensional weights. For instance, considering the findings of our survey, does a higher valuation for infrastructure correspond to a lower valuation for environment, or does a higher valuation of health correspond to a lower valuation of income?

Table 7

Correlation coefficients between dimensional weights

	Income	Income Dist.	Educ.	Health	Employ.	Infrast.	Values	Envi-ron.
Income	-	-0.060	-0.155	-0.238	-0.119	-0.066	-0.215	-0.361
Income Dist.	-0.060	-	-0.210	-0.264	-0.240	-0.301	-0.149	-0.212
Education	-0.155	-0.210	-	0.163	-0.047	-0.173	-0.218	-0.184
Health	-0.238	-0.264	0.163	-	0.087	-0.110	-0.264	-0.061
Employment	-0.119	-0.240	-0.047	0.087	-	-0.146	-0.230	-0.078
Infrastructure	-0.066	-0.301	-0.173	-0.110	-0.146	-	-0.038	-0.026
Values	-0.215	-0.149	-0.218	-0.264	-0.230	-0.038	-	0.063
Environment	-0.361	-0.212	-0.184	-0.061	-0.078	-0.026	0.063	-

Table 7 refers to the weights assigned by individuals to each dimension. Therefore, a negative correlation coefficient is expected in the majority of the bilateral comparisons. The evidence supports this in 25 out of the 28 possible relationships. Two of the three exceptions correspond to the relationship among key social dimensions of development – education, health, and employment – and the most significant association is between education and health (0.163). The other bilateral relationship with a positive association of attributed weights has to do with the relationship between values and environment. Here we find that individuals who give greater importance to the values dimension also seem to have a greater environmental concern. The trade-off between environment and income is clearly evidenced by the corresponding bilateral relationship, which has the largest negative correlation coefficient.

7. Final Remarks

Composite indicators in the assessment of countries' development have gained increasing importance *vis-à-vis* the enlargement of the concept and the subsequent need for indicators to capture that multidimensional nature in the quantitative evaluation of the domain. The crucial issues regarding composite indicators are the dimensions encompassed by each, and their respective weights. The second issue is less clarified in the literature and is thus at the center of this investigation.

The Introduction posed three key research questions, and based upon the findings, our main conclusions can now be stated. The first question was about the correspondence between the



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public-opinion valuations of each dimension of development and the common procedure in the literature of assigning equal weight to each of these dimensions. Two major conclusions can be derived from our findings. On the one hand, respondents have assigned very similar weights to the different dimensions, which seems to add legitimacy to the research option that predominates in the literature. On the other hand, some key dimensions of development are repeatedly identified as being more important than others – namely education and health. Both infrastructure and income are, in contrast, the dimensions that are least frequently identified as having an importance greater than the other dimensions of development. In short, even though the differences are not quantitatively significant, they are consistent in terms of the more important dimensions, thereby reducing the value of composite indicators that do not include them. However, the analysis of the main available indices in the literature confirms that these dimensions are, indeed, those that are most frequently included in the composite measurement of development.

The second question presented in the Introduction has to do with the dependence of dimensional weights on some characteristics of the individuals – namely gender, age, and educational level. The evidence confirms the influence of these characteristics, although the impact is, once again, not great.

Finally, regarding the third research question, about the possible existence of a relationship between dimensional weights, the data support a belief in such a relationship. The greatest positive relationship is between education and health. Respondents who assign more weight to the education dimension do the same for the health dimension. Other positive correlations are found between employment and health and between environment and values. The remaining bilateral relationships have a negative correlation, which comes as no surprise considering that relative weights are at the focus. The most significant inverse relationship is between income and environment.

There is still room for further research on the issue of weighting composite indicators of development. We emphasize those that seem most promising in the area. First of all, a larger survey would allow for a more robust look at the findings reported here. Second, broadening the elements of individual characterization of the respondents would enable a more in-depth evaluation of the factors determining the dimensional weights of development. Third, a comparison of our findings with those obtained in different countries would be very beneficial. Indeed, one cannot expect that findings from Portugal generalize to all countries of the world economy and thus it would be really interesting to look at the issue of weighting composite indicators of development especially in comparisons between developed and developing countries, but also taking into account sub-groups of countries like the least-developed countries and the emerging economies. Fourth, dimensional surveys questioning the relative importance of each sub-dimension is a highly appealing avenue for further research. This procedure would have a double merit. First, it would enrich the corpus of information available, and second, it would allow for a more specific analysis, and thus a more insightful classification by respondents. In addition, dimensional surveys could also be used as a further check on the proposed development nomenclature, namely whether aspects of development such as gender equality, cultural diversity, macroeconomic context, and political and social stability do have a residual character for individuals. Finally, a long-run study would permit monitoring the (possibly changing) attributions that individuals provide on the dimensions of development throughout their lives.



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SYSTEMATIZATION OF FIRM LIFE CYCLE APPROACHES

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Abstract

Life cycle approaches describe and explain changes in organizational entities (e.g. firms) between their conception and termination. Life cycle theory assumes that development is governed or mediated by underlying natural, logic or institutional rules. Life cycle models do not deny that firm size and age vary, but they assert that prospective development is related to typical configurations (e.g. transition between stages, vulnerable spots). Knowing these configurations hypothetically can facilitate (pro-) active change and crisis management in favour of firm survival and growth.

More than 100 life cycle models have been published during the last 50 years. These models differ in many respects, in general they analyse the opposite forces of growth (success) and decline (crisis) or both. Some of these models are more conceptual and holistic (e.g. whole life cycle; range from small to large); others are more empirical and very specific (e.g. small number of selected firms; mainly cross sectional, few longitudinal). Due to this variety the predictive power of life cycle models tend to be rather specific than general.

This paper presents a conception to systemize life cycle models and to create a basis for comparing different approaches. Intended is a portfolio which relates life cycle approaches to firm characteristics and to configurations indicating (predict) requirements or recommendations for change and (pro-) active crisis management. This portfolio can aid further research and evaluations of relevance.

1. Introduction

Applying the metaphor ‘organism’ (living being; open system) to organizations [1, 2] implies that firms, understood as subset of organizations,

- are born, live and ultimately die;
- develop through their lifespan (progress through life cycle stages);
- depend on survival (primary orientation) to achieve further goals (satisfy needs);
- differ regarding characteristics and living environment;
- have to be aware that their existence can end any time (random shocks; failure).



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Life cycle approaches describe and explain changes between firms' conception and termination. Life cycle theory assumes that, when firms progress through stages, development is governed or mediated by underlying natural, logic or institutional rules. [3, 4] Analogous to living beings firms differ in size (growth) and age (life expectancy). Consequently those firms who die young and stay small cannot experience stages (configurations) related to higher levels of development. But life cycle stages in general are characterized by determined or at least probable patterns (configurations), which hypothetically indicate even perilous developments.

Firms are more or less vulnerable throughout their entire lifetime. If they cannot manage to stay healthy, crises may turn into distress and failure. (Proactive) change and crisis management can aid to avoid or overcome firm crises by creating new growth (revitalization). The question which guides my research is whether life cycle approaches provide viable indications for necessary (advisable) change and effective crisis management. An answer requires a systematic comparison of relevant life cycle models (LCM).

LCMs appear in a large variety, with various variables and differently structured. [5] More than 100 approaches have been published since the mid-20th century. [6-10] In general they analyse the opposite forces of growth (success) and decline (crisis) or both. Some of these models are more conceptual and holistic (e.g. whole life cycle; range from small to large); others are more empirical and very specific (e.g. small number of selected firms; mainly cross sectional, few longitudinal).

- Conceptual approaches (e.g. Greiner, Glasl & Lievegoed, Adizes, Bleicher) [11-16] are based on experience and logical conclusions. Although they are lacking empirical evidence their face value is considered to be high, their descriptions and explanations have an intuitive appeal. [17, 18]
- Empirical approaches (e.g. Miller & Friesen, Hanks, Lester et al.) [19-21] relate to specific samples of firms (age, size, industry, country etc.); accordingly the space for generalizations is limited. Broadly discussed are questions about demarcation and notion of stages, sequence of stages and configurations characterizing stages. [22, 23] Issues related to growth still raise more attention than decline (negative growth, distress, failure). [24, 25]

All models have advantages and disadvantages. From a perspective of change and crisis management the limited coverage of single LCMs seems to be a material disadvantage. General indications, preferably based on empirical evidence, for necessary or advisable change or crisis management are missing because of the limited range of firm age, size, industry etc.

My intention is to extract such indications from various LCMs and to compile them in a portfolio which covers a wider range of firms. This paper presents the action plan to developing this approach. My plan is to compare and assess at least 50 life cycle approaches (see Figure 1) with regard to

- **scope** (model characteristics; what is looked at);
- **method** (study characteristics; how to achieve results);
- **result** (evidence, theory, recommendations).

A generic life cycle model (GLMC) constitutes the frame for comparing different LCMs (chapter 2). The analytics for research methods are presented in chapter 3 and the frame for the LCM-portfolio in 4. A test of the suggested approach is presented in chapter 5. The paper concludes with a tentative result (chapter 6).

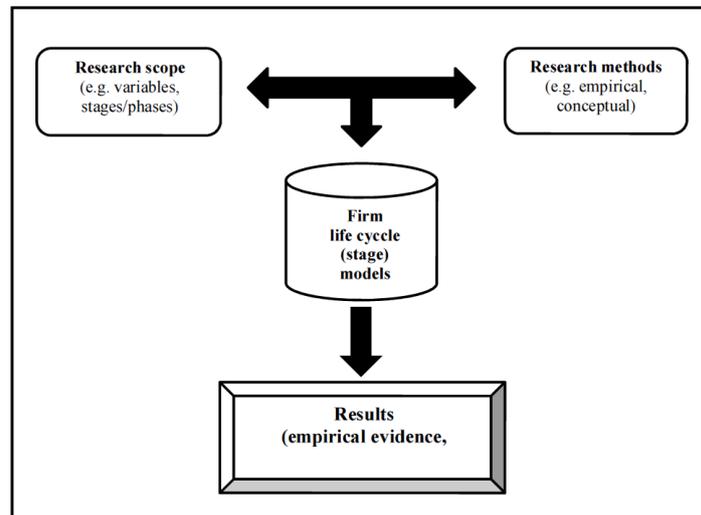


Figure 1. Approach to systematization of firm life cycle models

Source: own design

2. Generic Life Cycle Model

The **research scope** of life cycle approaches varies in particular regarding

- the **cycles** they discuss:
 - Is it the entire life time between birth and death, subdivided in stages (phases), or is it a segment of firm life, only a sequence of sub stages (e.g. decline)?
 - How many stages characterize a life cycle and how to name them?
- the **variables** ensuring survival, growth and further need satisfaction:
 - Which and how many variables are appropriate?
 - Are endogenous or exogenous factors crucial, or a combination of both?

Survival is the ultimate orientation of any life cycle approach, because only living firms can develop. In the GLCM **growth** is understood synonymous with the combination of abilities and means to keep firms alive, to meet their needs: positive growth implies success; negative growth (decline) implies failure. Which variables are considered to have impact on growth depends on the respective LCMs.

The GLCM, presented here (see Figure 2), covers the entire lifespan of a firm. It divides firm life into 5 main **stages**, regardless the number of stages in the LCM:

- (1) **inception** (includes conception as basis): the initial business model with its resources have to be sustainable to effectuate expansion (\Rightarrow *no average growth in this stage*)
- (2) **expansion**: business grows (qualitative, quantitative) through (\Rightarrow *growth rate > 0*)
- (3) **maturity**: keeping growth potential to avoid decline (\Rightarrow *growth rate \approx 0*)
- (4) **renewal**: change or adapt business models to (re-)gain growth (\Rightarrow *crisis management*)
- (5) **decline**: inflows do not cover costs of living (needs), reserves and resilience are necessary to overcome crises and stay alive (\Rightarrow *growth rate < 0*)



Life cycle models from literature will be assessed and described in comparison to this GLCM. Although random shocks (yellow flash in Figure 2) are part of real business life they hardly can be considered as part of determined processes of LCMs. But if random shocks cause distress and crisis the decline stage may follow a determined process.

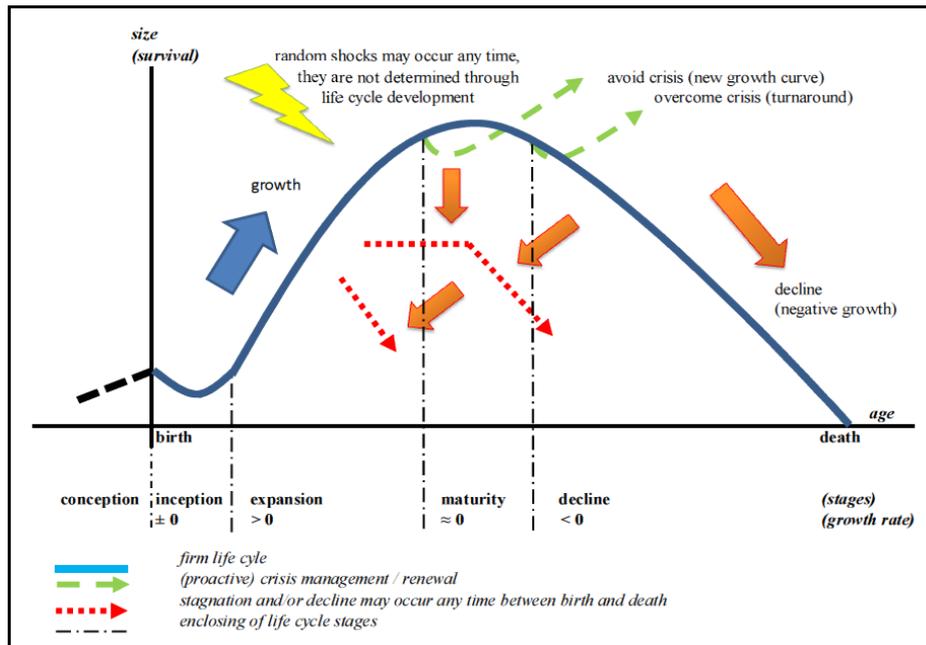


Figure 2. Generic life cycle model

Source: own design

3. Research Method Characteristics

LCMs are based on empirical research as well as experience and its interpretation. My characterization to the spectrum of **research method** approaches focuses on

- **firms** analysed and observed
 - number;
 - size;
 - age;
 - industry (manufacturing, high-tech, services, etc.);
 - location (country, region, etc.);
- **firm life cycles** analysed and observed
 - longitudinal studies;
 - historical analysis;
 - questionnaires;
 - cross-sectional studies;
 - conceptions (experience).



A strict separation of scope and method characteristics is not feasible in all cases, overlapping occurs as well. Stages for instance have implications of age (e.g. start-ups are young); multi-national firms tend to be big, hence their size has been impacted already by variables causing growth.

4. Shaping the Life Cycle Portfolio

Firm age is measured in years or month from birth. Several measures can indicate size or growth (e.g. revenues, profit, assets, equity). Most common and here used is the number of employees, because it is the easiest to access globally.

Following OECD and EU demographics, due to size and age limitations firms do not necessarily progress through all life cycle stages. [26, 27] Only 50 percent of start-ups survive the first five years. In average firms perish between ages of 10-20 years, large multinational corporations (FORTUNE 500) have an average life expectancy of 40-50 years. [28] 95% of firms have less than 20 employees; they hardly face organizational challenges which may be typical for growing, large, diversified corporations.

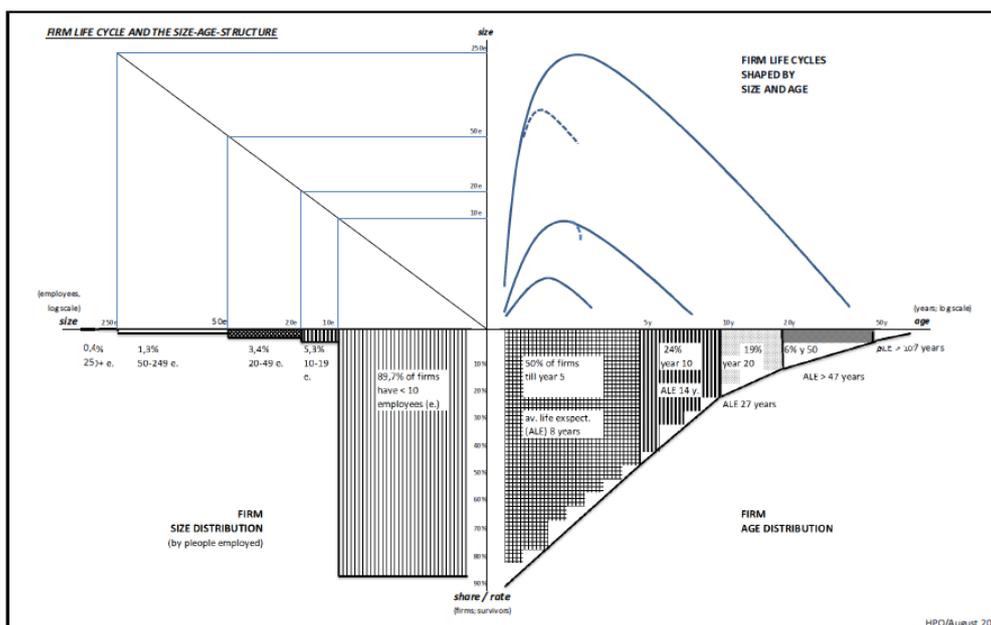


Figure 3. Life cycles shaped by firm size and age

Source: Oehl, 2011

Life cycles are variable in size and age. Most firms are small and medium-sized enterprises (SMEs) with up to 249 employees (EU-definition), less than 1% is large with 250 and more employees. Many problems discussed in LCMs have no chance to develop in the majority of firms. Nevertheless large firms are economically important: they employ roughly 1/3 of the working population and their failures raises enormous public attention because of its impact on the whole economy.



Figure 1 [29] offers a synopsis of these shaping factors. Age shapes the length of life cycles, size its height. Large firms tend to be older, mortality of smaller firms tend to be higher.

LCMs relate explicitly or implicitly to samples of firm populations (number of firms). The sample determines the relevance of a LCM by firm size and age. A portfolio (see Figure 2) can explain these constraints. The scaling of the portfolio differs from that of Figure 1. This is to allow a better illustration of the relatively high proportion of LCMs related to large and mature firms.

Firm age in years				Number of firm employees
0 up to 5	5 up to 20	20 up to 40	40 and above	
				1000+
				250 - 999
				20 - 249
				1 - 19

Figure 4. LCM portfolio

Source: own design

5. Testing the Suggested Approach

Figure 5 summarizes the characteristics for research scope, method and result. A test-sample of 3 LCMs is appraised based on this schema (Figure 6):

- Greiner [11]
- Miller / Friesen [19]
- Hill et al. [30]

RESEARCH SCOPE		RESEARCH METHOD	
Stages	Variables	Firms	Life cycles
(1) inception (& conception) (2) expansion (3) maturity (4) renewal (5) decline number of stages	growth measure (= dependent variable) independent variable(s) ■ quantitative ■ qualitative ■ hybrid	number of firms size age industry location	longitudinal studies historical analysis questionnaires cross-sectional studies conceptions (experience)
RESEARCH RESULTS ■ sequence of stages ■ duration of stages ■ development through certain stages ■ kind of vulnerabilities ■ indication (diagnosis, prognosis) for vulnerabilities ■ therapy and prevention for vulnerabilities ■ resilience ■ relevance in relation to size and age ■			

Figure 5. Characteristic of firm life cycle approaches

Source: own design



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RESEARCH SCOPE & METHOD & RESULTS	Greiner 1998 (1972)	Miller & Friesen 1984	Hill et al. 2002
Stages (1) inception (& conception) (2) expansion (3) maturity (4) decline (5) renewal number of stages	(1) & (2) with substages (phases) i. creativity ii. direction iii. delegation iv. coordination v. collaboration 2 (divided by 5)	(1) birth (2) growth (3) maturity (4) decline (5) revival 5	(1) inception (2) expansion (4) decline (5) renewal
Variables growth measure (= dependent variable) independent variable(s) ■ quantitative ■ qualitative ■ hybrid	critical growth (size) configurations (evolution vs. revolution) age size growth rate of industry management focus	changes in growth direction (transitions) 54 variables for 4 categories ■ situation (context) ■ strategy ■ decision making ■ structure	negative growth (crisis) ■ sales ■ marketing ■ financing ■ general management
Firms number of firms size age industry location	general observation SME to Fortune's 500 general observation manufacturing preferably America & Europe	36 large (Fortune's 500) > 20 years all America & Europe	8 entrepreneur-owned SMEs 6-20 years manufacturing & services USA & UK
Life cycles longitudinal studies (L) historical analysis (H) questionnaires (Q) cross-sectional studies (C) conception (experience) (E)	(H)&(E)=> intention to create a model of the overall process of firm development (growth) what empirical research did not deliver by then	(H)=> 161 stages & 125 transitions (Q)=> executives verified data (C)=> multivariate analysis (E)=> for tentative stage structure and hypothesis formulation	(Q)=> selecting qualitative data from interviews (C)=> comparison of data 1990-2000
Results	<ul style="list-style-type: none"> management problems & principles (attitude, practise, solutions) depend are rooted in age and size the right practise in one stage will cause problems in the following stage transitions from one evolutionary stage to the next goes through phases of revolution for adaption stage length (3-15 years) depend on growth rate and right decisions most firms fail in early phases poorly managed firm in prosperous markets often perform better than well managed firms in poor markets 	<ul style="list-style-type: none"> nature & differences among stages is in line with conceptual literature, confirmed (predictable by special variable configurations stages are not connected in deterministic sequences, strategic choice has impact on sequence with growth firms get more complex, and have to adapt stages (1), (2) & (5) identified as innovative, (3) & (4) as conservative marked by lower efficiency 	<ul style="list-style-type: none"> all firm went at least through one crisis, five went to two 1st crisis mainly due to sales 2nd crisis, after growth, mainly due to general management high resistance to external advice (marketing, general management) external aid is accepted regarding finances

Figure 6. Test-sample of LCMs systematically analysed

Source: own design

The positions of the tested LCMs in the portfolio (Figure 7) illustrate that applicability of single models is limited regarding firm size and age. But the more LCMs are included in the analysis the more comprehensive the portfolio coverage will be. Further research has to concentrate on

- comparisons of LCMs with the same or overlapping portfolio coverage (see Figure 7, overlapping of the models of Greiner and Miller & Friesen);
- testing the predictive power of identified configuration on the basis of empirical data from other sources (e.g. turnaround and failure statistics).

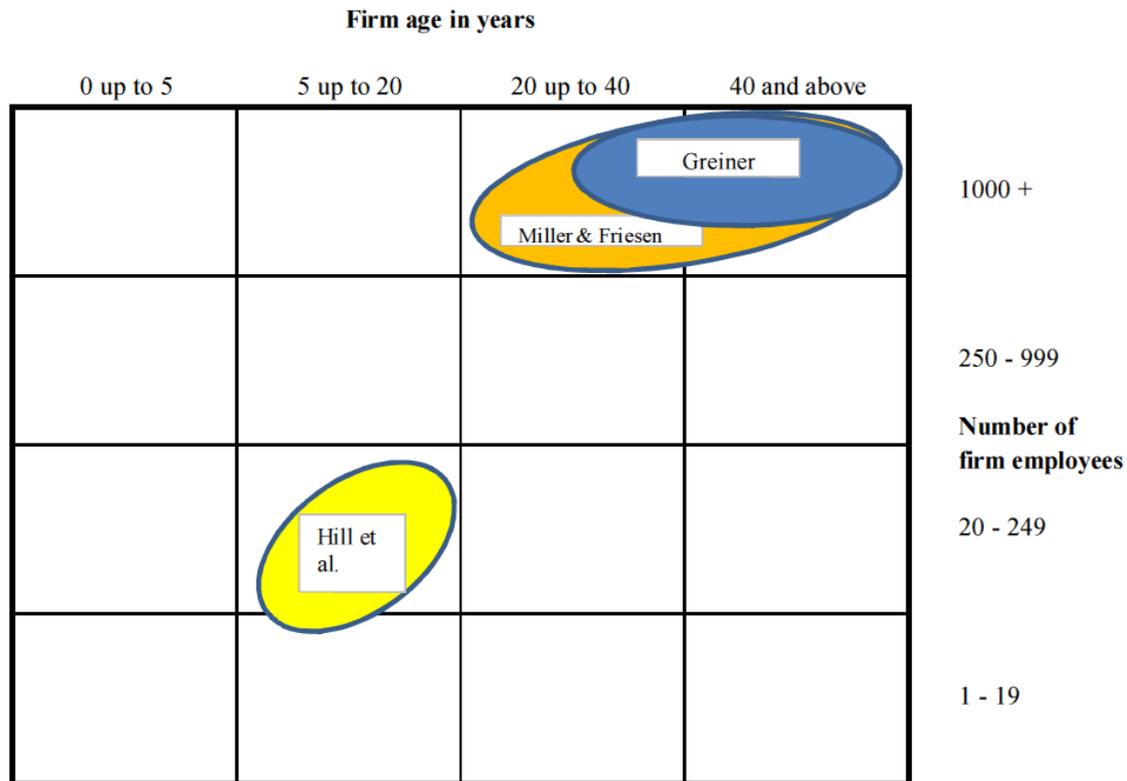


Figure 7. LCM-portfolio with test results

Source: own design

6. Conclusion

My research is guided by the question whether firm LCMs can facilitate (proactive) change and crisis management. Life cycle theory assumes that firm development is mediated by underlying natural, logic or institutional rules. Configurations (patterns) related to life stages may indicate determined or at least probable vulnerabilities (potential crises) or indicate reasons for advisable changes.

Life cycle models (LCM) appear in a large variety and differently structured. An appraisal of their bundled predictive power requires systematization. The presented framework structures the LCMs by characteristics of research scope and method, and by their presented results.

A tentative evaluation of my suggested approach is based on a test-sample and its related positions in the LCM-portfolio. The test results illustrate that there is a good chance to identify LCMs for the most relevant firm sizes and ages. This is the basis for further research which has to show whether there is empirical evidence for the prognostic potential of identified configurations.



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TRIPLE HELIX MODEL OF INNOVATIVE DEVELOPMENT: ROLE OF LOCAL GOVERNMENTS IN REGIONS OF LATVIA

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Keywords: innovative development, Triple Helix model, local government, economy of Latvia, regions of Latvia, competitiveness of regions

Abstract

Globalization is a significant force reorganizing the world's economy through new knowledge and technology. Thus, the production of innovations becomes vital for national and regional economies. In 2011 Latvia ranked 27th in the EU in terms of innovation and this gives cause for concern.

A Triple Helix (TH) model of interaction among universities (U), industry (I) and government (G) was worked out by H.Etzkowitz and L.Leydesdorff in mid 1990s. According to this model an innovation is an outcome of interaction among social coordination mechanisms: markets, knowledge production, and (public or private) governance. Three environments or functions are specified in the model: (1) wealth generation (industry), (2) novelty production (academia), and (3) public control (government).

A single indicator of economic effect of TH model has not yet been created, therefore, currently the components are investigated and measured separately and then compared to identify the linear and nonlinear interaction and patterns. To measure the U-component the principles of bibliometrics and scientometrics are applied with related metering parameters – citation analysis, number of publications, citation indices, number of patents granted, etc. To measure the I-component (understood as a technology business that focuses on the introduction of high technology products in the industry) economic indicators are used, such as the number of high-tech enterprises, the volume of output of their new products, etc. At the junction of U



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and I components the performance of high-tech enterprises and start-ups, including university spin-offs, are measured and compared with economic indicators. The G-component makes decisions on national and local levels that affect the statistics of the first two components.

The aim of the paper is to define the current status of Latvian local G-component in TH triadic structure and to find the points affecting the growth of regional competitiveness that can bring the maximum synergistic effect with minimum investment.

Being a significant force reorganizing the world's economy through new knowledge and technology, globalization is one of the most important factors of the external environment for all market participants [1]. Globalization does not mean only open markets and business opportunities but sharp competition as well. In the knowledge-based economy and information society innovations are one of the main boosters of economic development. The creation of innovations becomes vital for national and regional economies that seek for prosperity and social stability. "Latvian National Development Plan 2007-2013" prepared by Ministry of Regional Development and Local Government (MRD&LG) of the Republic of Latvia, that became the basis of EU National Strategic Reference Framework 2007-2013, declared: "...it is necessary to create favourable conditions for innovative development directed at employing internal intellectual resources (endogenous). Greater use should be made in the economy of intellectual property (inventions, technologies, products) created in Latvia...; this would increase the number of patents developed in Latvia (especially in the field of high technology), develop the science and technology commercialization structure and create closer ties between the research and scientific institutions, companies, and the ties of these institutions with the real market situation" [2]. But according to Innovation Union Scoreboard (IUS), in 2011 Latvia ranked 27th (the last) in the EU in terms of innovation, called a "modest innovator" [3] and this gives cause for concern.

Innovations require appropriate external and internal environment, institutions, financial investment, but first and foremost they need intellectual investment. The level of intellectual capital in the country is one of the major means for survival in the globalized competition. The intellectual capital of the country is created through the system of education, health care, social protection, values and beliefs, "import of brains", etc. "However, it is worth remember that in knowledge economy the main driving force is tertiary education" [4]. One of the models of innovative development that ties together tertiary education, industry and society is a Triple Helix (TH) model of interaction among three components: universities (U), industry (I) and government (G) that was worked out by Henry Etzkowitz and Loet Leydesdorff in mid 1990s.

The aim of the paper is to define the current status of Latvian local G-component in TH triadic structure and to find the points affecting the growth of regional competitiveness that can bring the maximum synergistic effect with minimum investment. For purposes of the study monographs, scientific articles, official documents, bulletins and statistical data of Latvian government, Higher Education Institutions (HEIs), Latvian local governments, Centres of Technology Transfer, and Investment and Development Agency of Latvia were reviewed and analyzed.

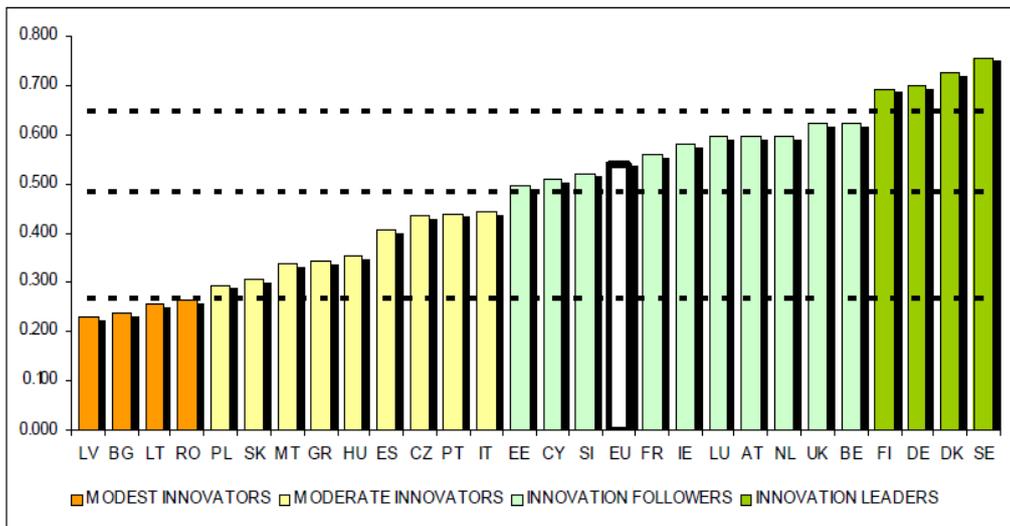
The TH model was generated from an analysis of government's relation to universities and industry in different societies and its various roles in innovation [5]. According to this model, an innovation is an outcome of interaction among social coordination mechanisms: markets, knowledge production, and (public or private) governance. Three environments or functions are specified in the model: (1) wealth generation (industry), (2) novelty production



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(academia), and (3) public control (government) [6]. The model “enables the analyst to specify the relations between private property and profit maximization, public control functions as legislation and regulation, and the innovative dynamics of the techno-sciences in empirical instances, and thus to contribute to the development of solutions to problems at interfaces among the central functions of today’s society” [7].



Note: Average performance is measured using a composite indicator building on data for 24 indicators going from a lowest possible performance of 0 to a maximum possible performance of 1. Average performance in 2011 reflects performance in 2009/2010 due to a lag in data availability.

Figure 1. EU Member States’ Innovation Performance in 2011

Source: Innovation Union Scoreboard, 2012

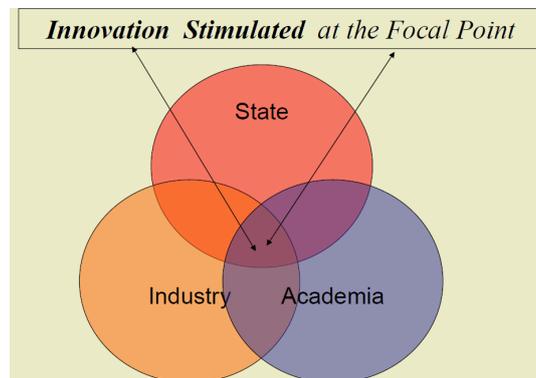


Figure 2. Classical Triple Helix model

Source: Henry Etzkowitz, 2008



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Currently, there are two main approaches in the researches carried out in the stream of the TH model: neo-institutional, supported by H. Etzkowitz (Stanford University), and neo-evolutional, supported by L. Leydesdorff (University of Amsterdam).

From neo-institutional point of view, an innovation system (both regional and national) is being operationalized through its main institutional actors: universities, industry and governments. These actors interact in trilateral relationships thus undergoing transformations, “taking the role of each other” [5] and creating innovations and innovative environment. The role of communication among them grows exceptionally.

But the path to TH begins from two opposing standpoints: a statist model in which the government is controlling universities and industry (see Figure 3) and a laissez-faire model in which the three components are separated from each other and interact modestly across strong boundaries (see Figure 4) [6].

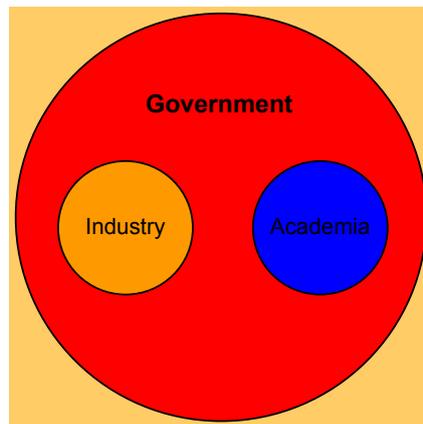


Figure 3. Statist Model

Source: Henry Etzkowitz, 2008

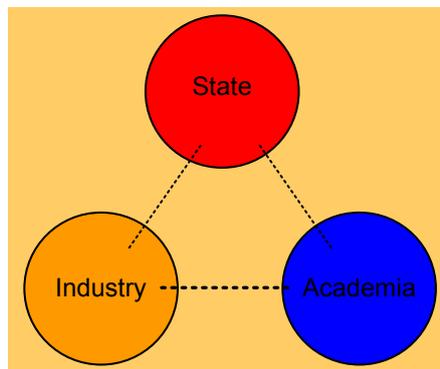


Figure 4. Laissez-Faire Model

Source: Henry Etzkowitz, 2008



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The statist model is used in many transitional economies, where the role of government is still rather high, while the *laissez-faire* model is inherent to open liberal economies. Both models have their strong and weak points. In the statist model the government has an opportunity to use its power and resources for innovation promotion but the “bottom-up” initiatives may be ignored. In the *laissez-faire* model the industry acts as a mover of economy and innovation development but if the industry is not strong enough it has no resources for innovations. At the same time, the decrease of the role of government may lead to a shock therapy and the concomitant losses.

Neo-evolutionary approach concentrates on the triple helix of functions instead of institutions: wealth generation, knowledge production and normative control. It studies possible synergies between these functions. From neo-evolutionary point of view, the three helices in the hypercycle model do not need to be coordinated into a central overlapping zone (see Figure 5).

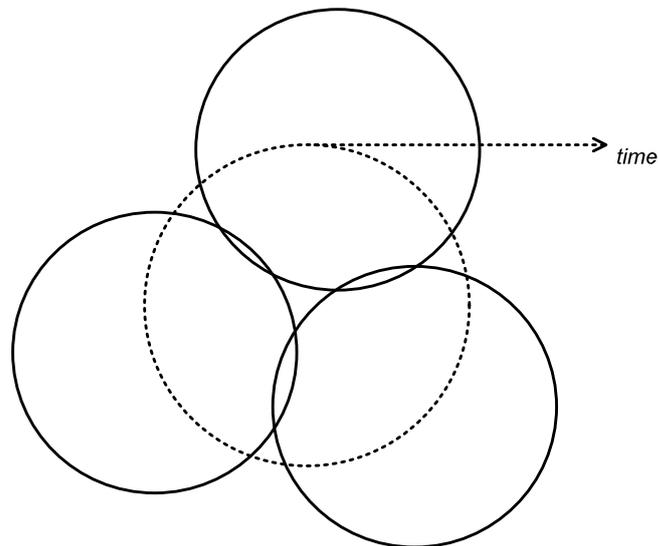


Figure 5. The Hypercycle model

Source: Loet Leydesdorff, 2012

All functions are highly interdependent: when two of the helices form bilateral relations, the third helix acts as a selection environment through having mutual relations with each of the first two and reduces the uncertainty in the system. Brought together, such selective environments form the synergetic mechanism, which enforces the systemness of an economic as well as innovation system and its ability for self organization [8]. For instance, when we study the interaction between two components of the TH model – knowledge production and wealth generation (that can be measured in absolute terms – applied patents, number of spin-offs, employed alumni, etc.), we have to consider that at the same time the third component – normative control can reduce the uncertainty in the system and increase the synergetic effect of such interaction by various means, like legal regulation, tax incentives, state grants, etc. In its turn, this leads to changes in the structure of industry and education thus the helices make another curl.



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Neo-evolutionary approach presents the Triple Helix model as “a dynamical mechanism, underlying a national (regional) innovation system and leading its transformation” [9]. The interrelation of neo-institutional and neo-evolutionary approaches is reflected in Table 1 [10].

Table 1

A (neo-)institutional versus an evolutionary appreciation of the Triple Helix model

	<i>Sub-dynamics</i>		
<i>Functions</i>	Wealth generation	Novelty production	Normative control
<i>Carriers</i>	Industry—University—Government		

Source: Loet Leydesdorff, Martin Mayer, 2006.

A single indicator of economic effect of TH model has not yet been created [8], therefore, currently the components are investigated and measured separately and then compared to identify the linear and nonlinear interaction and patterns. To measure the U-component the principles of bibliometrics and scientometrics are applied with related metering parameters – citation analysis, number of publications, citation indices, number of patents granted, etc. To measure the I-component (understood as a technology business that focuses on the introduction of high technology products in the industry) economic indicators are used, such as the number of high-tech enterprises, the volume of output of their new products, etc. At the junction of U-component and I-component the performance of high-tech enterprises and start-ups, including university spin-offs, are measured and compared with economic indicators. The G-component makes decisions on national and regional level that affect the statistics of the first two components [11].

In order to define the place of the G-component in the triadic TH model in Latvia it should be taken into consideration, that according to official statements of Latvian politicians during the last 20 years Latvia has built an open and liberal market economy [12]. Based on these statements, the neo-institutional laissez-fair model should be the best to describe the situation with the TH model of innovation development. According to Etzkowitz (2008), “in the laissez- faire model the role of government is expected to be limited to clear cases of so-called “market failure”. E.g., government can organize production of vitally needed goods or rendering socially important services when other market actors cannot do that due to some reasons: natural disasters, crises, too high production costs, lack of technologies and resources, etc. The extremely weak position of Latvia from the point of view of innovation development makes to think of such case of “market failure” and review the role of central and local governments in the direction of strengthening. As Ziegenblag and Monteanu mentioned in a report conducted for the European Commission, “Low demand and level on business R&D is one of the major burdens in Latvian innovation system, as there is a lack of communication and a mismatch between university research and industry” [13] – a case for the G-component’s interference.

Obviously, during the recession after the crisis of 2009 it is difficult for local governments to support entrepreneurs wishing to work in the field of R&D – they have no



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sufficient resources and legal framework for that. On the other hand, the gross domestic expenditure on research and development (GERD) dropped to 0.45% in 2009 (the EU average – 2.01%) and has not grown until now [14]. The G-component has to search a way to adjust the relations between U and I-components with less resources but nonetheless effective.

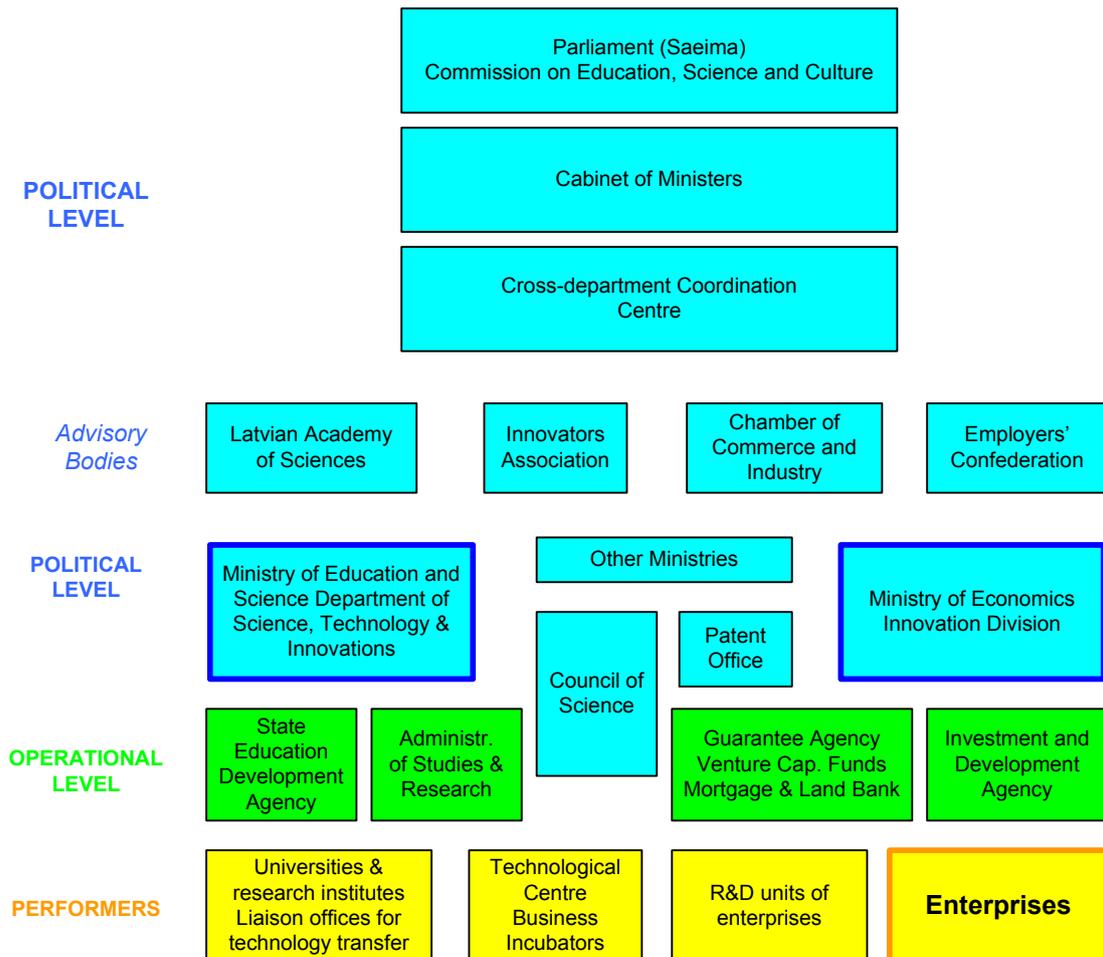


Figure 6. Organizational structure of Latvian System of Innovation, October 2011

Source: Kristapsons, Dravniece, Adamsone-Fiskovica, 2012

As it is seen on Figure 6, the present structure of Latvian System of Innovation is cumbersome and vague, there are many bodies, but the scheme of their linkage and communication, including horizontal, is uncertain; it is difficult to understand the structure of accountability, feedback and control.

On authors' opinion, the universities are to be the first addressees of central and local governments' attention and support, because, (1) "the university is the generative principle of



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the knowledge-based societies” [5] and (2) “the competitive advantage of the university, over other knowledge-producing institutions, is its students” [5]. Besides, Latvia already has a network of universities (Higher Education Institutions) located in the centres of all planning regions and major cities [15].

The G-component supporting universities in their aspect of the TH component of innovation development will solve the important economic and social issues simultaneously. Among such issues are:

- Growth of economic and science activities of universities in the area of the TH collaboration with local business can boost the economic growth of both private enterprises and regions, thus increasing the number of jobs;
- New offers may be made by universities in the market of educational services, that could lead to the attraction of foreign students, academic personnel, grants and investment;
- A strong university linked with an industrial cluster can increase the competitiveness of a region;
- The demographic situation of the country and regions can be improved by the increase of number of students and academicians engaged, besides the education process, to the regional processes of production, thereby increasing the number and quality of the workforce.

The investment to regional universities can be done in various forms and are not so big, as compare to direct investment in other industrial and/or infrastructural projects, though they may cause the synergetic effect that will multiply the value of the investment. This is the main idea and advantage of the TH model [8].

In the absence of the own resources, one of the possible sources of investment is EU funds [14]. At present, Latvia poorly absorbs EU funds intended to promote entrepreneurship and innovation. According to the European Commission, Latvia invests in entrepreneurship and innovation only 9.6% of the available resources [16]. Changes in the policy of use of EU financial support will also bring additional profit to regions. The re-direction of EU financial flows to universities may drastically help to solve the above mentioned issues.

In order to ease the funds sharing, the list of perspective priority industries must be reviewed and fixed on the level of a state programme. Now these industries are technologies, wood processing and design [14].

Conclusions and Recommendations

The innovation development of Latvia is far from the optimal. After the last crisis, “the government primarily focused on general economic support measures, and no innovation-specific extra measures were introduced” [14]. The Triple Helix model of innovation development is a model that can help Latvia to catch up more developed countries, to increase its competitiveness and competitiveness of the regions. Latvia has an open and liberal economy, therefore the direct support of exclusive market participants cannot be provided in substantial volume. Though, in accordance with the theory and practice of the Triple Helix model the central and local governments (G-component) can successfully participate in the development



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of state and regional innovation systems through the support of the universities as the generative principle of the knowledge-based economy. Such support may include the following steps among others:

- Local governments must become a catalyst for the convergence of science, industry and entrepreneurship at the local level that will lead to the development of favourable innovation environment and creation of new jobs in the regions. It may be done through development and adoption of a state wide-ranging programme of innovation development based on the TH model. This programme should include the list of priority industries based on predictive conjuncture, resource availability and possibility of resource obtaining;
- Local governments should provide universities (Higher Education Institutions) and involved entrepreneurs with moderate but targeted financial and organizational support in the framework of such programme;
- It is necessary to dramatically increase the efficiency of the use of the EU funds through the creation of promising local programs that must be worked out with obligatory participation of regional universities, entrepreneurs and local communities.

The abovementioned activities can bring the maximum synergistic effect with minimum investment, although it will require some intellectual resources. Organizational structure of Latvian System of Innovation must also be restructured in the near future to enhance its transparency, efficiency and effectiveness.

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RISK-RATIOS AND THEIR RELEVANCE FOR FINANCING REAL ESTATES

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Introduction

During the last and still ongoing financial crisis also known as Subprime Mortgage Crisis, triggered by a dramatic rise in mortgage delinquencies in the USA, more than 4 million US families lost their homes in cause of foreclosures. Another 4.5 million households are still (end of 2010) in a foreclosure process [1, p. xv]. The USA had nearly 2.8 million foreclosures in 2009 and estimated more than 3 million in 2010 [2]. Millions of people lost a lot of money at funds mostly with high speculative products but even with their pension funds. Huge former triple-A-rated banks as Lehmann Brothers had to declare their bankruptcy. Other banks got billions of taxpayers Dollars/Euros to survive as Citigroup or the two biggest U.S. mortgage banks Fannie Mae and Freddie Mac or they were nationalized as the German Hypo Real Estate Bank. Island and Greece got massive financial problems, which are leading them nearly to a governmental bankruptcy. Spain, Portugal and even big G8 countries as USA and Germany got into big troubles with their financial systems. All these things happened because U.S. credit grantors and credit users did not realized their real risks in financing real estates with subprime loans. In addition the securitization of the credit risks and the worldwide allocation of the products made this crunch, which was created in the USA, to an international crisis. In general, financial systems are characterized by ups and downs. The financial market is a permanent cyclical process. It is very important to take an early perception of signs of an economic slump, to avoid such giant and worldwide impacts on the economy of so many countries.

The aim of the paper is to reveal that poor risk management in the policies of lending money and of securitization of mortgages led doubtless to this disastrous situation. A verification for that assumption is e.g. that the Financial Crisis Inquiry Commission of the US Congress used inside “The Financial Crisis Inquiry Report” from January 2011 the word “RISK” for 1093 times [1]. Inside the paper there is an explanation of the risk term and the process of risk management. Especially the part measurement of risks is considered, because this is one leverage instrument for observing the risks of financing. The paper gives explanations to the following questions:

- How will the risks measured in financing today?
- How do perform the existing risk measurement tools?
- Which modifications are necessary and possible?
- Which changes will lead to which outcomes?



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The aim of the paper is to reveal and to compare different approaches for risk-measurement because different situations need different models of risk measurement and “any model is only as good as its assumptions” [3, p. 31]. There will be displayed that one of the most important risk ratios the Value at Risk defaulted in its existing frame. Furthermore is shown, which outcomes can be reached by different changes of the Value at Risk variables as Loss Given Default (LGD), Probability of Default (PD) or the correlation factor ρ in loan portfolios. The VaR-approach will be compared with other risk management methods as Extreme Value Theory (EVT) or the Expected Shortfall (ES) approach.

Risk-Definition

The definition of the word “risk” can be very extensive because there are so many different kinds of risks. In the view of the topic “financing residential real estates” it is helpful to use the New Oxford American Dictionary, which defines “risk” as “*a situation involving exposure to danger*” or in economic terms “*the possibility of financial loss*”. The notion of “risk” is coming from Italian noun “risco” (danger) or Italian verb “rischiare” (run into danger) [4]. Thus, the mean association to this word is negative. Risk-aversion is a normal behavior of anxiety in the human nature. Risk-management can handle these anxieties and can avoid risks. (See chapter: Risk-Management). Mostly there will be seen only the danger of losses without the chance and the opportunity of making profits, compare Maier [5, p. 3]. Jorion defines risk as “*the volatility of unexpected outcomes*” [6, p. 3]. Volatility is the negative and positive deviation from the statistical average. People and institutions can choose, how much risk they want to accept. There is common sense of the ratio between risk and return, as higher the expectations of returns as higher the risks that have to be accepted. Hui, Wang and Zheng use the term of “*risk appetite*” to describe the “*investors’ tolerance for financial risks and willingness to bear uncertainty*” [7, p. 421]. Risk is described by the uncertainty of future events.

Types of Risks

As much possibilities of definitions of the word “risk” are existent as much types of risks are existent. To explain the kinds of risks is also dependent on the stakeholder of the risks. In the field of financing real estates the two main stakeholders are the lenders and the borrowers of the money.

Lenders as financial firms are concerned to two main types of risks: business and financial risks [6, p. 3]. **Business risks** are connected to activities of the corporation that means which products it makes or sells, which technologies it uses in which markets it operates and which risks it wants to carry for the main aim to create maximum added value for the share- and stakeholders. Strategic risks as part of business risks are connected to fundamental changes in the economical or political environment of the corporation e.g. the decision of Germany to stop the nuclear power production for concerned energy corporations or the break of economical connections to politically unstable regions for concerned firms. **Financial risks** can be classified into: Market risks, Credit risks, Liquidity risks and Operational risks. **Market risks** are those, which are linked to changes of the prizes of a category of products at the markets, in the case of real estate financing – the prizes of the real estates. The volatility of prizes is depending from the supply and demand of a product. If there are too much products/houses at



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the market the prizes will decrease and vice versa, as happened during the subprime mortgage crisis of 2007/2008. Financial institutions use several variables of the markets e.g. prizes of shares, interest rates, exchange rates and so on to control the development at their business.

Credit risks are highly connected to the default risk of the borrowers in case of being unwilling or unable to repay a loan. Credit risk leads directly to losses for the financial institution because of replacing the expected cash flows from repayment. This kind of risks was the most important of all risks as trigger of the financial crisis. **Operational risks** pertain to firms by internal or external causes of interrupting the “normal” business operations. Internal causes can be failures of management or of technology systems, fraud (e.g. unapproved trading) or other human errors in trading, inadequately control mechanisms and many other organizational risks. External causes can be fraud as well by externals, natural catastrophes and others. The Basel Committee on Bank Supervision (BCBS) defined operational risk at the Basel II Accord as “*the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events ... includes legal risk, but excludes strategic and reputational risk*” [8, p. 144]. Regulatory and Legal risks are belonging to the external part of the operational risks and they are those, which are set e.g. by political decisions, changes of regulations or laws e.g. of accounting standards, tax codes. Legal risks are also exposures to fines and penalties, resulting from judicial or governmental regulation authorities in case of breach of financial restrictions e.g. manipulation or insider trading. **Liquidity risks** are connected to the possibility of having enough liquid money for all liabilities and the daily business both in private or commercial sector. If a bank doesn't have enough liquidity the core business is in big trouble so as seen in the case of the British Northern Rock bank in the September 2007.

Borrowers of the money for real estates are concerned nearly to the same kinds of financial risks as liquidity risk, default risk and credit risks, with little modifications.

Their liquidity and default risk is reliant on their personnel situation of earnings and expenses. The credit risk of the debtors is also dependent on the kind of mortgage contract that they have. Fixed Rate Mortgages (FRM's) or Adjusted Rate Mortgages (ARM's) are possible. The FRM have the safety of a fix interest rate for the duration of the contract mostly long term 15 to 30 years. The interest rate of ARM's can and will change during the time of the contract. Often there is only a short time fix and a long time variable interest rate e.g. 2/28 means 2 years fix and 28 years of variable rates. The changing of interest rates can be an advantage or a disadvantage depending on the direction of change. The number of ARM's had a steep increase at the US market between 2001 and 2004 from 12% to 34% see [9, p. 33]. The 2008 default rate of subprime ARM's was 33.4% vs. 3.0% of prime FRM's see [9, p. 91]. Connected to the theme of the dissertation project the main risks that are concerned to financing real estates are at least always the financial risks both for credit lenders as for credit borrowers.

Risk-Management

The aim of risk-management should be to organize a situation for borrowers and lenders in which they are comfortable with their risks of financing. The main tasks of risk-management are the diagnosis of the recent and future risks and the decision of which risks are acceptable or which risks have to be managed by the organization [10, p. 2]. Risk-management is no longer a voluntary practice for enterprises since the Accords of the Basel



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Committee on Banking Supervision (BCBS) are fixed in governmental laws or regulations such as the International Financial Reporting Standards (IFRS) and not at least at the codes of Corporate Governance or the 2002 Sarbanes-Oxley-Act at the USA. The Basel II Accord requires at the side of the internationally active banks a minimum capital for managing worst-case situations. This required capital is the sum of the credit risk, operational risk and market risk related amount [8, p. 5].

Irrespective the legal determinations risk management is a necessary tool for corporations to react quickly on the permanently changing market conditions as e.g. share-values, interest rates or exchange rates. Risk-management is a row of processes (shown at the Figure 1), which contains risk-identification, risk-measurement and analysis, risk-handling and risk-controlling. These processes are running dynamically. At the beginning of the risk-management process the financial corporation has to identify, which types of risks are close to it. The next step is to measure and analyze the outcomes of the risk. At the end of these two stages the enterprise knows its risks and the financial value of the vulnerability. The next process is to decide how to handle the risks. It has to be made a strategy, which instruments should treat the risks. Depending on the risk aversion of the corporation there are different methods to minimize or to avoid the risks, but there will not be a complete risk avoidance without the minimization or elimination of returns too, see [5, p. 3]. Afterwards the kind of risk handling is defined the realization of the strategy has to be organized, done and controlled. Risk management is basically a necessary tool for moneylenders but some of the following processes are useful for borrowers, too.

Risk-Identification	Risk-Measurement	Risk-Handling	Risk-Controlling
Types of Risks	Risk-Analysis Business Ratios	Instruments	Organization
<ul style="list-style-type: none"> • Credit Risks • Market Risks • Operational Risks • Liquidity Risks • Legal Risks 	<ul style="list-style-type: none"> • Expected Loss • Worst Loss • Volatility • Value at Risk • RaRoC 	<ul style="list-style-type: none"> • Prevention • Limitation • Compensation • Diversification 	<ul style="list-style-type: none"> • Planning • Control • PDCA • Information

Figure 1. Process of Risk-Management

Source: own in adaption to Wolke, [11, p. 4]

Inside this paper there will be explained more in detail only Risk-Identification and the Risk-Measurement-Process for the case of financing private real estates in USA and Germany.

Risk-Identification

The task of the risk identification is to allocate the types of risks and their dangers or chances for the enterprise. In the case of financial institutions that are lending money and giving mortgages for real estates the main types of risks are as mentioned before market, financial especially credit risks and operational risks. The main risk and the **trigger of the financial crisis from 2008 was the credit default risk**. The extreme delinquency rate of US American credit



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borrowers with subprime loans (to see at Figure 2) initialized a chain reaction at the system of the second mortgage market, where the mortgages were securitized and bundled into Collateralized Debt Obligations (CDO). The breakdown of this CDO-market was followed by the crash of giant financial institutions as Bear Stearns or Lehman Brothers and a led to a world wide financial crisis. CDO's are a part of the derivative market. Derivatives were originated as an instrument to shift the risk from debts (see chapter risk compensation). They have developed themselves to a much higher risk than the original risk from the mortgages before. CDO's have shifted the default risk from the originator banks to the investment banks, which were holding the CDO's and the risks now without the possibility to be shifted or minimized again. The following Figure 2 shows the market situations and the developing of home-prizes at the USA between 1988 and 2011.

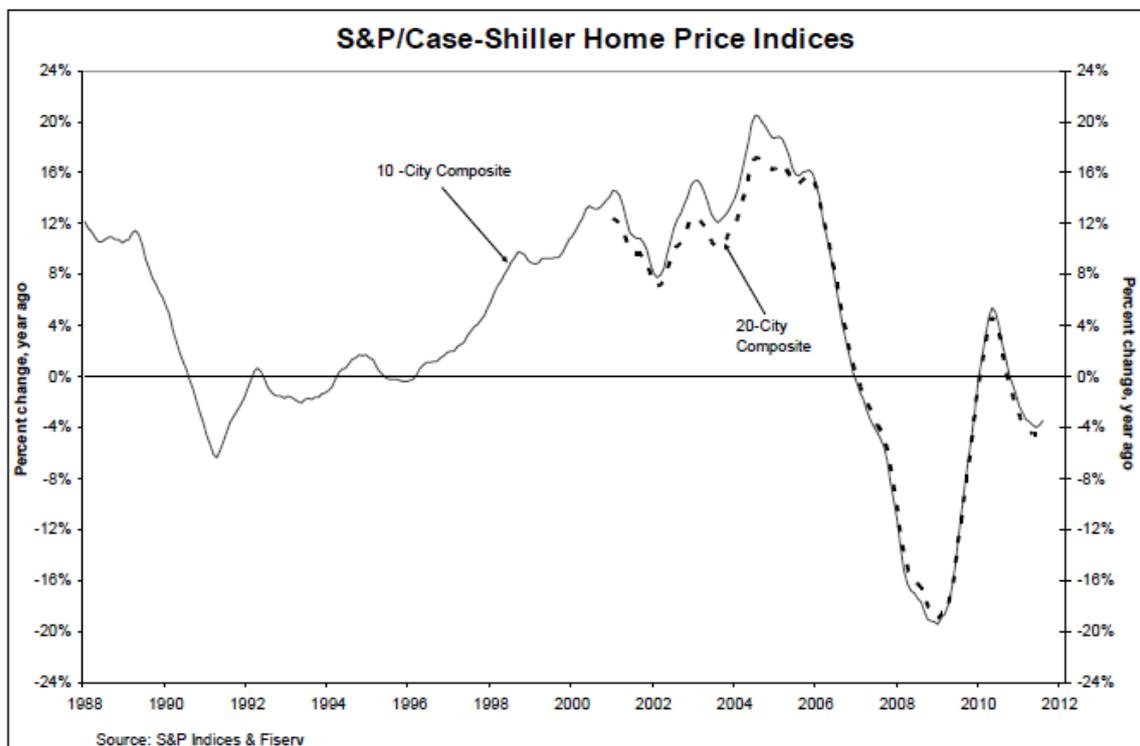


Figure 2. Standard & Poor's / Case-Shiller Home Price Index

Source: S&P Indices & Fiserv 2011

It is visible that the peak of the house prizes in USA was around 2005 and that there was definitely a downsize of the prizes since 2006. But the “machine” of unregulated selling of mortgages and their securitization was running further this way until autumn of 2008 until Lehman crashed! Then in 2009 was reached the bottom.

Figure 3 shows the same house selling market at same time but in Germany. You can see also a very “bullish” market with a steep increase of housing prizes but starting first in 2006, when the American market was already “bearish” and on the way down.



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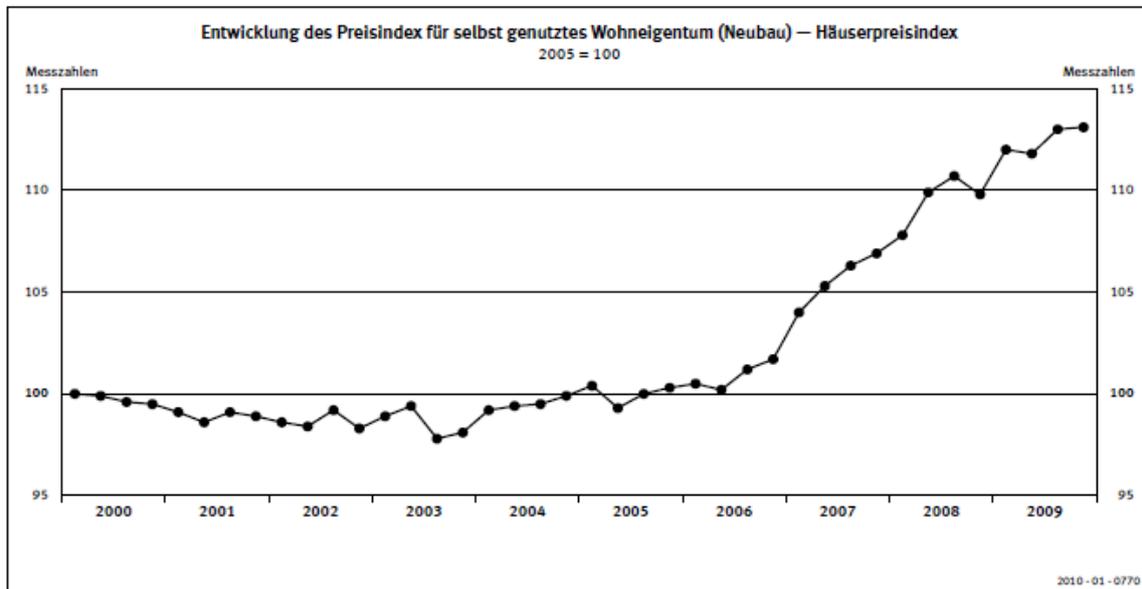


Figure 3. Development of Prizes for self-used Homes in Germany (2000-2009)

Source: Statistisches Bundesamt, Wirtschaft und Statistik, 10/2010, 939 p.

As mentioned before the Figure 4 shows the Delinquency Rates and the Rates of Mortgage Originations. You can see as that the purchase as well as the refinance rate increased until 2005 and had a decrease after that point. Same result as seen at Figure 2.

Item	1990	2000	2004	2005	2006	2007	2008	2009	2010
MORTGAGE ORIGINATIONS									
Total (bil. dol.)	459	1,139	2,773	2,908	2,726	2,306	1,509	1,995	1,572
Purchase (bil. dol.).....	389	905	1,309	1,512	1,399	1,140	731	664	473
Refinance (bil. dol.).....	70	234	1,463	1,397	1,326	1,166	777	1,331	1,099
DELINQUENCY RATES ¹									
Total	4.7	4.4	4.5	4.5	4.6	5.4	6.9	9.4	9.3
Prime conventional loans.....	(NA)	2.3	2.3	2.3	2.4	2.9	4.3	6.5	6.5
Subprime conventional loans.....	(NA)	11.9	10.8	10.8	12.3	15.6	19.9	25.5	25.9
Federal Housing Administration loans.....	6.7	9.1	12.2	12.5	12.7	12.7	13.0	14.0	12.8
Veterans Administration loans.....	6.3	6.8	7.3	7.0	6.7	6.4	7.2	7.9	7.5

Figure 4. USA Mortgage Originations and Delinquency Rates 1990 to 2010

Source: US Census Bureau, Statistical Abstract of the United States 2012, 743 p.

Further on you can see, that after 2005 the delinquency rate had a steep increase in total from 4.5% in 2005 up to 9.4% in 2009 and especially the delinquency rate of subprime mortgages increased from “normal” around 11% in 2005 up to 26% in 2010. At same time the German total mortgage Delinquencies Rates are very stable on a value around 2.5% much deeper than at the American market at “normal” times (see Table 1).



Table 1

German Delinquency Rates 2006 to 2010

	2006	2007	2008	2009	2010
Total (%)	2.4	2.5	2.5	2.4	2.5

Source: own with data from SCHUFA, Kreditkompas 2011, 60 p.

After identification of risks there follows the measurement and analysis of the risks. This process is a core process of risk-management and it is essential to further decisions in what ways the risks should be treated.

Risk-Measurement

After identification of risks there follows the measurement and analysis of the risks. This process is a core process of risk-management and it is essential to further decisions in what ways the risks should be handled. Only things that are measured can be analyzed and if need be changed analog to “What gets measured gets managed (or gets done)” by Peter Drucker. Risk-measurement can be divided into quantitative and qualitative approaches. Qualitative methods are the determination of scorings or ratings.

Quantitative methods are based on the determination of risk ratios. These are discovered by measurement of countable data of financing and using these data at stochastic equations to describe the risks. There are simple Quantitative Risk-Ratios as the Expected Loss and there is a second part of more complex risk ratios as Worst Case Loss, Unexpected Loss, Variance, Volatility or Value at Risk (VaR). Duffie and Singleton discussed the primary focus for financial institutions and warn for extreme losses as e.g. the Unexpected Losses (UL) as a significant ratio for insolvency [12, p. 13]. The main ratio for risk measurement of financial institutions is the Value at Risk and the Value at Risk approach. The Basel Accords also require that ratio for the determination of needed economical capital for the three main risks (financial, market and operational risks).

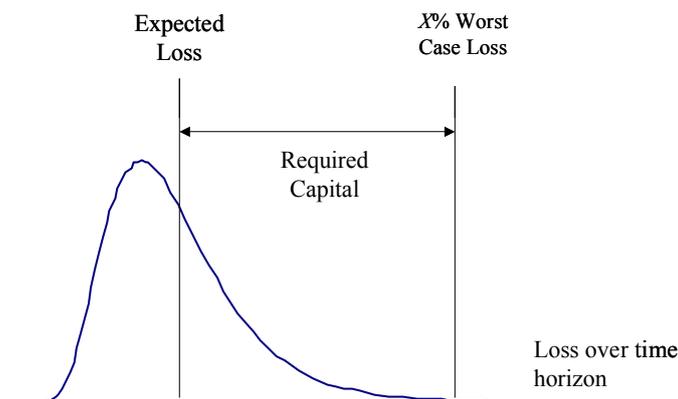


Figure 5. Distribution of Credit Losses

Source: [10, p. 280]



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The EAD (Exposure at Default) is the monetary amount of outstanding debts. LGD (Loss Given Default) is the percentage of money that is lost in case of default of the credit counterparty. It is the difference 1 minus Recovery Rate (RR) what is that part of the loan, which is repaid already, see E-1. The Expected Loss (EL) of a portfolio of loans can be estimated as the weighted sum of all possible losses ($EAD_i * LGD_i$), each weighted by its probability of default (PD_i). It represents the average or the mean of losses (μ) see E-2. The amount of the expected loss is predictable and will be prized into the interest rate of a loan. The Worst Case Loss (WCL) is the highest default during a time period, which will not be exceeded at a specified level of confidence, see E-3. The WCL varies with the Worst Case Default Rate (WCDR), which depends from the correlation ρ between the assets of the portfolio and their probability of default PD, see E-4. The Unexpected Loss (UL) is that amount of money that defaults outside of the confidence level of the PD. The Basel II Accord requires capital reserves for the amount of that Unexpected Loss, which is determined as the difference amount between Worst Case Loss and Expected Loss, see E-5. One cause for this is, that the value of UL is mostly much higher than the value of EL, compare with Figure 5. The next ratio that can be computed is the variance, which is defined as the weighted sum of squared deviations around the mean, see E-6. The volatility is the ratio of the standard deviation around the mean and will be calculated from the variance. The volatility as a worldwide-accepted ratio for risk measurement is a necessary instrument to evaluate shares and portfolios of credits, see E-7. The Value at Risk (VAR) is that expected maximum amount of money, which could be lost during a target time horizon (T) and with a given confidence (c), see E-8. Basel Committee requires for credit risks: Time is one year and Confidence is 99.9%. The confidence is the base for determination of factor α . As higher the confidence level as higher the VAR. The J.P. Morgan Bank New York created the VAR-Model in 1994. Value at risk is today the standard tool in risk management for banks and other financial institutions as well as for regulation authorities. A disadvantage of the VAR is that the VAR is not useful for extreme situations as i.e. the massive default of subprime loans, which do not reflect the VAR assumption of a normal distribution [6, p. 543]. Advantages of VAR are: easy to use, easy to understand and it can be back or stress tested. The VAR-model has to be adapted immediately for such extreme situations with the assumption of higher default rates. The VAR-approach is used for standard deviations with normal tails. For extreme situations it is better to use the Extrem Value Theory (EVT) or so called fat tail method or Expected Shortfall. The EVT can show the amount of losses behind the confidence level of the VAR, that means which lost is possible when confidence level will be exceeded. EVT is not so easy to calculate and to understand as the VAR-method and there is no possibility for backtesting. Another method is the Mark-to-Market-Approach. It uses the standard deviation and probability of default for calculating of the possible default rates. In the appendix is an excel calculation which shows a comparison of VAR-calculation with different variables and the Mark-to-Market-Model. Possible changing variables can be the Probability of Default (PD), the correlation factor (R) of the loan portfolio and the Loss Given Default (LGD). The PD is taken by the values of census bureaus in US and Germany. The correlation factor is normally 0.15 for loans with real estates and the LGD is given and fixed by the CreditMetrics calculation with 48.87%. The situation at USA showed that even if the portfolio is diversified by mixing loans from East and West the correlation factor was to low if there is a worstcase situation crosses the whole USA. An increasing of the PD-variable increases the VAR too. This



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changing has a higher outcome than change of LGD by same factor. Possible is also a mix of both increasing to get a higher security. If you take the Mark-to-Market-Model you have no possibility of changing other variable than PD but these is given by historical data. So you can't adopt this model with the new situation.

Qualitative methods as Scorings of Borrowers are a worldwide used aid to evaluate the quality of the credit buyer and the quality of the property that should be financed. The financial and social capability of borrowers and their credit worthiness will be investigated as well as the value of the property by an appraisal. The determined score is necessary for decisions i.e. of the amount of a loan or the interest rate and further to categorize the quality of the credit. It is a very subjective method but a good and necessary addition to the more objective quantitative methods of evaluating risks of the credit counterpart. The qualitative measurement with scoring-models is not only an addition but also a requirement for quantitative evaluations [11, p. 66]. To get a score the financial institution has to define attributes, which count the spread of valuation by numbers and their weight for the whole system. Standard attributes are personnel credit worthiness, which depends on financial status, willingness to pay, liquid capital, job situation, kind and amount of securities, credit card and former credit stories, consumer behavior, payment patterns and many more. In the field of financing real estates further attributes are those from the real estates as macro and micro location and market factors, value of the real estate and the loan to value ratio (LTV). The sense of scoring is to reduce the credit default risks for lenders.

By scoring they get information of their clients and this increases the trust to the clients or not, depending on the information. The United States and Canada use the Credit Bureau Scores also known as FICO scores, which were developed by the Fair Isaac Corporation (FICO) in 1956. The range of points is from 300 to 850. Scores below 650 are so called sub primes. Their number increases from 2001 to 2005 from 7.8 to 21.3% see [9, p. 49]. The scoring will be made at the USA by credit agencies as i.e. Equifax or TransUnion. In Germany banks get credit worthiness information of the credit borrowers by SCHUFA the German credit agency, which was founded in 1927. To do that, SCHUFA and the banks change information permanently. SCHUFA has 479 million data sets from 66.2 million people [13]. SCHUFA gives a scoring of a person, which consists of points (max. 1000), a rating class: A, B, C... (A is best) and a percentage of the probability of credit default PD (low is best).

Scorings of Lenders: Financial institutions are subject to a scoring as well as their credit clients. These scorings are not as relevant for the borrowers of private credits as for other banks, financial institutions and insurances because if a bank wants to lend money by another bank or if a bank wants to sell loans, derivatives or other products to other financial or insurance institutions the counterparties want to have this scoring information of the bank and of the product. The score depends on the obligor's capacity to meet its financial commitment, on its business, financial and economic conditions. Scorings for financial institutions reach from AAA, AA, and A... to D (AAA is best). The evaluation and determination will be made in the USA by credit agencies: S&P (Standard and Poor's), Fitch Ratings or Moody's Investor Service.

Risk – Analysis

The risk analysis is the next step following after risk measurement. The analysis and the further decision process depend at first of the risk awareness of the financial institution. This



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can reach from total risk averse to adventurous or risk seeking, compared to Wolke [11, p. 67]. The corporation should differentiate their risks into maybe three categories (critical, fundamental and unimportant) reliant on the danger of the measured risks and the risk awareness. This phase is necessary to prepare the decision of how to handle the identified and measured risks and expected revenues.

Risk – Handling

To handle the risks there are many different possibilities. This paper explains four main instruments of them: risk limitation, risk diversification, risk prevention and risk compensation.

Risk limitation is a process to avoid market risks by setting limits to shrink the VAR value of the corporation. Limits at financial positions can be: stop-loss-limits, sensitivity limits, nominal limits or scenario limits. **Risk diversification** is a process to use the effect of shrinking the risk by putting low- or uncorrelated assets into a portfolio. By this way the portfolio VAR is smaller than the sum of each VAR. This is the system of the so-called portfolio theory from Markovitz, created in 1952. The originator banks made diversifications of risk by putting mortgages with different ratings and from different locations into a portfolio to diversify the default risk and sold this portfolio as CDO to investment banks. This kind of diversification worked good for long time with commercial loans, because there were historical data for stochastic computations available. The problem with real estate mortgages was that really a lot subprime mortgages from nearly all locations defaulted. This problem could not be calculated before because there were not enough historical data of subprime mortgage defaults available. **Risk prevention** is an activity, which is used to increase the equity capital resources or the economic capital. A few banks hold a higher amount of economic capital than the Basel Committee requires being better prepared to outcomes of risky occasions. Risk prevention is at first the control of the credit worthiness of the clients. **Risk compensation** can be made by using derivative products or insurance products to decrease the primary risk position. Derivatives are instruments as forwards, futures, options or swaps whose values are dependent on future market conditions of underlying assets.

Risk compensation with derivatives is a market instrument since the eighties of the twenties century. Insurance products are available for lenders and borrowers of credits as well. Products for lenders should reduce operational or credit risks and can be also derivatives. Products for credit borrowers are mostly life insurances.

Risk Controlling

As every business – the risk management has to be under control. Risk controlling is a process of planning and control of risks. Measurement and analysis is the base on which the planning of risk handling can be done. The control of the actual with the target risk values and the analysis of differences is a further step. Another function of controlling is to give the collected data to the management / board of the corporation for further decisions and as a base to realize their liability of information as this is required by regulations for corporate governance as well. The other risk management processes defaulted as well as did the risk controlling process. But this is more dramatic because controlling should avoid such risky developments and make interventions if needed.



Conclusions for Risk Management

The Subprime mortgage crisis was a result of that what happens if there is an immense failing of risk management. All four phases, which were described before did not work. At first the risks with subprime loans were not identified effectively. With the knowledge of this crisis the financial institutions are able to make better **Risk Identifications**. The loosening of the diligence to check borrowers' credit worthiness is a further massive fault. It is not only a question of fairness to sell such unchecked mortgages but also a question of fraud and should be corrected directly. Doing this, the investment banks have an enhanced chance to analyze their risk. One security to avoid such trade could be a rule, which requires that up to 30% of all mortgage tranches should stay property of the originator banks. Professor Hull made a recommendation of 20% see [10, p. 411]. **Measurement and Analysis** have to be improved as well. One problem with quantitative measurement of the credit value of risk ratio defaulted because of missing historical data of defaults from subprime mortgages. This can be changed now with actual data. The big financial institutions as J.P. Morgan or CitiGroup, which are experts of measuring credit risk [14, p. 238] and the financial science should think about adaptation of existing or creation of new models for risk measurement. Another possibility is to change the value of the used variables. The security amount of money at the banks can be increased by an increase of portfolio correlation factor or the Loss Given Default. The treatment of the risks went terrible wrong because even if financial institutions as CitiGroup realized that the situation has the possibility of great losses they let run the business because of massive returns with these CDO products [15, p. xii]. When house-prices were falling and default rates were rapidly increasing the situation went catastrophic. Thus alike CitiGroup many other big players were hit by massive losses with their CDO's. Recommendations for the field of **Risk Handling** are at first risk prevention by increasing of checking borrowers before giving a loan. This decreases directly the credit risks for all stakeholders. The supervision of the real estate market is also a basic thing for banks to manage the number of credits in view of avoiding further real estate bubbles. Credit originators should significantly decrease the number of the subprime ARM's. More transparency and a better information infrastructure will increase the confidence to and the reputation of the banks as well as increasing of fairness. Prof. Shiller wrote at "The Subprime Solution" that banks have the responsibility to inform their clients about their risks with credits and further on he requires that public education should "*promote comprehensive financial advice for everyone*" [16, p. 123]. The governments should think about change of regulation of the financial especially the second mortgage market. This is really a rigid suggestion because it reduces a part of free financial markets but the banks got lot of taxpayer's money to survive and the state should have the public concern that this situation will not repeat again.

A further advice is to change the short-term revenue orientated payment of bank staff into a long term to increase the long-term results.

Risk Controlling went wrong on sides of all stakeholders beginning at the borrowers following by the internal and external controlling of financial institutions and further on at the governmental side. Regulation authorities made huge faults in controlling the banks business in the field of the second mortgage market with securitization of real estate loans. Instruments to control the risks were given with the Basel Accords even before the crisis of 2007/2009. So,



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why did not the existing risk management methods avoid this crisis? Explanations can be found in the science of financial behavior. Aspects like Moral Hazard, attributes as greed or psychological effects of the stock exchange and other financial markets are driver for financial decisions. Regulation authorities have to control financial institutions strictly on the background of the Basel Accords.

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Appendix 1

Risk-Management-Ratios

$$LGD = (1 - RR) \quad (E-1)$$

$$EL = EAD * LGD * PD \quad (E-2)$$

$$WCL = EAD * LGD * WCDR \quad (E-3)$$

$$WCDR = N * \left(\frac{N^{-1} * (PD) + \sqrt{\rho} * N^{-1} * (0.999)}{\sqrt{1 - \rho}} \right) \quad (E-4)$$

$$UL = WCL - EL = EAD * LDG * (WCDR - PD) \quad (E-5)$$

$$V(X) = \sigma^2 = \sum_{i=1}^n (x_i - \mu_i)^2 * PD_i \quad (E-6)$$

$$SD(X) = \sigma = \sqrt{V(X)} = \sqrt{\sum_{i=1}^n (x_i - \mu_i)^2 * PD_i} \quad (E-7)$$

$$VAR = EAD * (\alpha * \sigma * \sqrt{T} - \mu * T) \quad (E-8)$$



SUSTAINABILITY OF PENSION SYSTEM

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Abstract

Regardless of the fact that Latvian pension system seems to be advanced and modern, recently we have been questioning sustainability of our Pension system. The discussions have been aroused by the various alarming economic and social processes, like decrease of social budget, economic crisis and breakdown, outflow of population, bad demographics, inhabitants' agedness, illegal national economy and inconsistent pension politics.

Considering the anxiety existing in the Latvian society, the aim of the paper is research and analyses of the conditions of building a sustainable pension system. In order to achieve the above mentioned aim, the authors describe the impact of economic and social factors on the sustainability of pension system, analyze the legislation regulating Latvian pension system, and formulate the criteria of sustainability. The following scientific research methods have been used in work: analytical method, comparative method, historical method, logically and abstractedly constructive method.

As a result the authors conclude that, with the existing system, 70% replacement rate for old age pensions in Latvia is not a realistic goal and in order to reduce replacement rate administrative policy must stimulate reduction of bureaucracy and increasing of productivity of both private and public sectors. Social policy must stimulate increasing of the role of family to ensure welfare of retired persons. The right balance between family support, solidarity support and support from individual savings is a challenge for further research and shall be basis for further pension reforms.

Introduction

Ensuring that public policies cater for sustainable, accessible and adequate retirement incomes now and in the future remains a priority for the EU. While Member States share similar fundamental challenges, there are considerable differences in the timing of demographic ageing,



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the design of pension arrangements, the growth potential and constraints on account of the fiscal situation and external competitiveness. The projected increase in public spending due to population ageing poses an important challenge to EU Member States. Policy action to improve the long term sustainability of public finances while ensuring adequacy of pensions is crucial. People nowadays are healthier and live longer than ever before – the increase is up to two and a half years per decade. But altogether the demographics are declining – we have fewer children. If nothing significant changes, most people in the EU, as well in Latvia, will live very long lives with the life expectancy at birth for men increasing by 8.5 years and for women by 6.9 years.

Due to these circumstances, over the last decade most European countries have reformed their pension systems with the aim to retain its sustainability and adequacy. These reforms have brought important progress, but there are signs that ongoing reforms might create risks regarding both adequacy and sustainability, since changes in pension systems will tend to make benefits more contingent on developments in labour and financial markets not delivering as expected. Budgetary consolidation, which is more urgent after the economic crisis, is essential in order to reduce public debt and contribute to financing the future increase in public pension expenditure.

Adequacy and sustainability are both relevant and interrelated. Meaning, people need to work more and longer to ensure both. The existing pension systems, though different, each has its strengths and weaknesses – they all need to consider the demographic and economic trends. Their aim must be reaching balance between sustainability and adequacy. Due to the crisis and the decrease in economic growth, it is important to strengthen awareness of available routes to adequate income in retirement. Regardless of the fact that Latvian pension system seems to be advanced and modern, recently we have been questioning sustainability of our Pension system.

1. Pension Policy by OECD

As the OECD (2011) notes, “retirement – income systems are diverse and often involve a number of different programmes. Classifying pension systems and different retirement–income schemes is consequentially difficult”. [2, 106] Furthermore, comparing these systems is certain to be controversial as every system has evolved from each country’s particular economic, social, cultural, political and historical circumstances. There is no perfect system that can be applied universally around the world. However there are certain features and characteristics of retirement income systems that are likely to lead to improved benefits for individuals and households, an increased likelihood of future sustainability of the system, and a greater level of future sustainability of the system, as well confidence and trust within the community.

The World Bank (1994) in its influential report “Averting the Old Crisis” recommended a multi-pillar system for the provision of old-age income security comprising:

Pillar 1: A mandatory publicly managed tax-financed public pension.

Pillar 2: Mandatory privately managed, fully funded benefits.

Pillar 3: Voluntary privately managed, fully funded personal savings. [3, 3]

More recently, Holzmann and Hinz (2005) of the World Bank have extended this three – pillar system to the following five-pillar approach:

Pillar 0: A basic pension from public finances that may be universal or means-tested.



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Pillar 1: A mandated public pension plan that is publicly managed with contributions and, in some cases, financial reserves.

Pillar 2: Mandated and fully funded occupational or personal pension plans with financial assets.

Pillar 3: Voluntary and fully funded occupational or personal pension plans with financial assets.

Pillar 4: A voluntary system outside the pension system with access to a range of financial and non-financial assets and support. [4, 42] In effect, they split the original first pillar into two and then also split the third pillar by adding a new fourth pillar which includes personal savings, home ownership and other assets held outside the pension system. The recognition of the fourth pillar highlights the important role of these assets in financially supporting the individual or household during retirement.

Park (2009) in an Asian Development Bank paper suggests that a well designed pension system will have the following characteristics: broad – based in terms of both coverage and the range of risks covered, sustainable – over time in terms of its actuarial and financial soundness, robust – so that it can withstand macroeconomic and other shocks, affordable from individual, business, fiscal and macroeconomic perspectives, providing reasonable levels of post retirement income, providing a safety net for the elderly poor. [5, 6] This list suggests a multiple set of objectives for any pension system and, as Park correctly notes, different societies will need to decide on the relative importance of each objective at a particular time. Furthermore, these priorities are likely to change over time as a society's economic and demographic circumstances change. As a rule, the best system for a particular country at a particular time must take into account that country's economic, social, cultural, political and historical context.

2. Pension Policy by European Union

Development of the pension system is within the competence of the Member States. At the same time, according to Article 136 of the Amsterdam Treaty, provision of proper social protection is a common objective of the Union and the Member States. To achieve this objective, The European Council may introduce measures to encourage cooperation between Member States through initiatives aimed at improving knowledge, developing exchanges of information and best practices, promoting innovative approaches and evaluating experiences (Article 137 Treaty).

The European Council in Stockholm (March 2001) emphasized the need to secure sustainability of pension systems in the context of the ageing population and decided to apply the Open Method of Coordination (OMC) also in the field of pension policy. This was based on a broad understanding that pension systems of the EU Member States face similar challenges in the light of demographic ageing – how to maintain simultaneously social adequacy and financial sustainability.

During the Laeken summit in December 2001, the European Council defined 11 common pension objectives. Although worded in relatively general terms (which is easily understandable considering that a consensus of all 15 Member States was needed to reach an agreement), these



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objectives describe the common policy of the EU in the field of pensions. In 2002, 15 Member States of the EU presented to the European Commission their national pension strategies. In these strategy papers the Member States have evaluated the current situation and prospects (over the time span up to 2050) of their pension system in meeting the EU common objectives. On the basis of these national strategies, the European Commission drafted a joint report, evaluating the situation of different Member States in respect of the 11 objectives (Council of the European Union 2003). In 2002-2004, the Social Protection Committee of the EU was engaged in developing common indicators to compare the pension systems of the Members States in a coherent way. [6, 53-54] As a new Member State, Latvia will also have to participate in the OMC in the field of pensions.

3. Latvian Pension System

Reform of the Latvian pension system was started in the beginning of nineties. The aim of this reform was to restructure the pension system according to the new socioeconomic circumstances in Latvia. Latvia was one of the first countries in the Central and Eastern Europe which started the introduction of multi-pillar pension system and the first country in the world which introduced the non-funded generation solidarity pension scheme based on the principles of capital accumulation. The underlying principle of the system is: the larger the contributions made today, the larger the pension will be tomorrow.

Since July 2001 there is a three tier pension system in Latvia:

- 1) the state obligatory non-funded pension scheme;
- 2) the state obligatory funded pension scheme;
- 3) the private voluntary pension scheme. [7]

3.1. The 1st Pillar (Tier) of State Pension System

All persons making social insurance contributions are involved in the 1st pillar or the state obligatory non-funded pension scheme. Paid contributions are used for payment of old age pensions to the existing generation of pensioners. Ideology of pension system intends that the able-bodied population would fully engage in the state social insurance and continue working as long as possible, delaying the retirement to older age. Social insurance contributions, earmarked for the old-age pensions, are recorded in national (virtual) individual accounts that return national interest until retirement and accumulate national pension capital, while real contributions are used for financing current pension expenditure. At retirement, pensions are calculated by dividing the amount accumulated in the national account by the average number of years protected for the pension payouts at each specific age of retirement. The state guarantees 1st pillar pensions for all residents who have been making social contributions for a period of at least 10 years.

According to the results of the Population and Housing Census, on December 16, 2011, the CSB informed that Latvia population exceeds 2 million – there are 2 067 887 people living in Latvia. [8] The number of population since the previous Population and Housing Census has reduced, and this change was due to both negative demographics (number of deaths exceeding the number of births) and international migration. The number of pensioners on the figures from the Central Statistical Bureau at 31.12.2011. amounted to 581 864 persons



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or 28% of Latvian population. Old-age pensioners are 482 537, and average size of a pension is (LVL) 179.75. The average size of a newly granted old-age pension is (LVL) 194.49. Besides, 78.61% of the pensioners' size of the pension is below (LVL) 200, and 16.8% of pensioners' size of pension is from (LVL) 200 to 300. Only 4.5% of the pensioners' pension size is actually higher than (LVL) 300. [8] The minimum amount of the retirement pension cannot be less than the state social security benefits (the data of December 31, 2011 – (LVL) 45 and 75 for disabled persons since childhood).

3.2. The 2nd Pillar (Tier) of State Pension System

Social insurance contributions of those who participate in the 2nd pension tier or the state obligatory funded pension scheme through chosen fund managers are invested into the financial market and saved for the pension of the specific contributor. Level 2 of the Pension System was introduced on July 1, 2001.

The State Social Insurance Agency (SSIA) is to ensure functioning of the 1st and 2nd tier pension schemes, i.e., register the socially insured persons and their contributions into the personal social insurance account, administer the contributions of the participants of the 2nd tier pension scheme, as well as to perform pension payment out of the resources accumulated from the social insurance contributions made by the employers and employees. Upon reaching the age of pension a person may choose either to add the capital accrued within the 2nd tier of the pension system to the 1st tier and receive the pension from the state or to purchase the life pension insurance policy from a life insurance company and receive his/her pension according to the conditions thereof. It will provide additional profits while already being on a pension and ensure disbursement of the pension until the end of the days, as well as give the opportunity to take care of one's spouse who will receive the pension afterwards. The total social insurance contributions for pensions (20% of one's salary) are divided between the 1st tier and the 2nd tier of the pension system (see Table 1).

Table 1

Social insurance contributions among the 1st and the 2nd pension tier [9]

Years	the 1 st tier	the 2 nd tier
2001-2006	18%	2%
2007	16%	4%
2008	12%	8%
2009-2012	18%	2%
from 2013	14%	6%

You are not required to pay any additional social tax contributions for the participation in the 2nd tier. In the future, the assets accrued under the 2nd tier of the pension system together with additional profit may account for a considerable part of your pension.



Table 2

General information on Management of State-funded Pension Scheme Assets [9]

Item	31.12.2011.
Number of managers of State-funded pension scheme assets	9
Number of investment plans provided by managers of State-funded pension scheme assets (incl. private asset managers)	27
Number of participants in the State-funded pension scheme*	1 156 743
incl. joined voluntarily	486 227
registered obligatory	670 516

* Data of the State Social Insurance Agency, www.vsaalv.lv

The managers of State-funded pension scheme assets are specially licensed management companies, which have more investment options, enabling to accumulate a larger pension principal. Saving function is based on the unitization principle, i.e. individual contributions, invested according to portfolio, chosen by individual, are marked in units. The value of a unit, which is a subject to investment performance, is calculated as a ratio between the value of assets as at the calculation time and number of units registered at the calculation time. The average net assets per unit of investment plans for the period of year 2001 till 2011 at the end of accounting period 31 December 2011 was (LVL) 757.5, and the average annual assets per unit (LVL) 75.8.

Table 3

Net Assets of Investment Plans for State-funded Pension Scheme Assets [10]

Item (in thousands of lats)	30.09.2011.
Net assets at beginning of accounting year	828 604
Net assets at end of accounting period	876 264
Gain/loss of net assets arising from investments	-17 467
Average profitability of investment plans*, %	-1.96
incl. conservative plans	1.89
incl. balanced plans	0.57
incl. active plans	-3.78

* Annualized ratio of changes in net assets per unit of investment plans during the period to the value of net assets per unit of investment plans at beginning of accounting year.

The annual real rate of investment returns (in lats and after investment management expenses) was – 1.96%, whereas for conservative plans it was 1.89%, for balanced plans 0.57%



and for active plans – 3.78%. Pension funds lost (LVL) 17 467 000 of net assets arising from the investments. Despite the recovery in financial markets, asset allocation remains challenging as pension funds and sponsoring companies need to take complex strategic decisions on the asset allocation mix in the context of highly changeable market conditions.

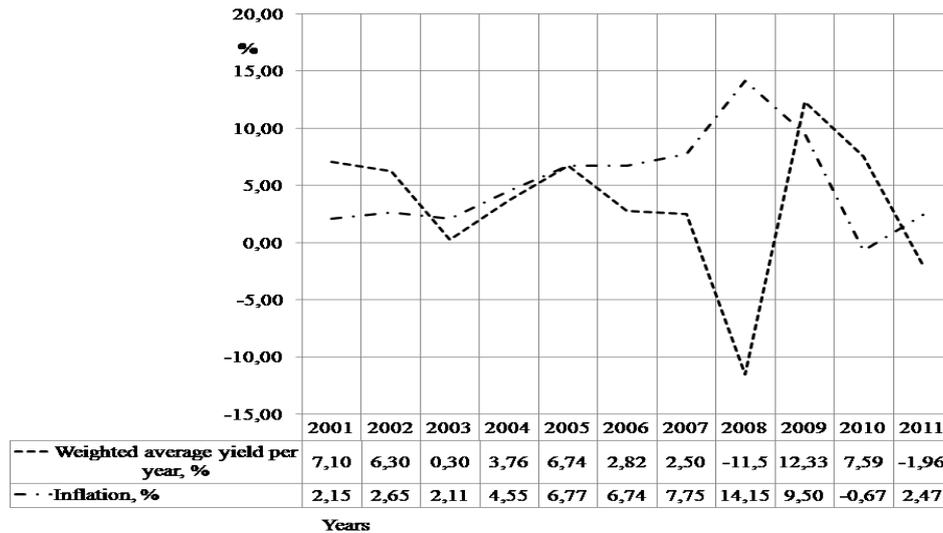


Figure 1. Inflation rate (%) and weighted average yield per year (%) of State-funded Pension plans (authors' survey)

Figure 1 shows the average profitability of the 2nd pension tier since its launch. In 2008, this tier suffered the biggest loss, when the profitability was -11.5%, but the inflation reached 14.5%. The annual average consumer price increase in Latvia in 2011 was 4.4%. [8] In most EU countries in practice, this assumption has little effect on the results of pension plans assets because of indexation. In 2010 Latvia stopped indexation. Savings swell and preserve their value, if the profitability of a pension plan is higher than the inflation. The crisis has highlighted the need to review the degree of financial market exposure and the design of risk sharing, regulation and investment strategy matter in funded pensions.

3.3. The 3rd Pillar (tier) of Pension System

The third pension tier or the private voluntary pension scheme ensures the possibility for every individual according to his free choice to create additional savings for his pension in the private pension funds. It is effective since July 1, 1998, and it aims at accumulating and investing the personally and voluntarily contributed monetary contributions by mediation of private pension funds, thus ensuring these participants an additional capital in old-age. Pension funds can be closed or open and they can have one or more pension schemes. Participants of this pension scheme can participate in pension plan both directly and by mediation of their employers. Accumulated capital is the property of the private person irrespective of the entity that made the contributions; moreover, it is subjected to inheritance rights. By accumulating private pension capital at the pension funds, it is possible to enjoy a series of advantages – to



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receive tax relief for your contributions; the contribution amounts and timing are flexible; the amount and frequency of contributions to the pension plans are unlimited; there is an opportunity to choose between investing in one of 21 pension plans; there is a possibility to receive accrued funds before the state-guaranteed pension but after reaching the age of 55 (the current retirement age in Latvia is 62 years); etc.

Table 5

General Information on Private Pension Funds [10]

Item	31.12.2011
Number of private pension funds (including 1 closed pension fund)	7
Number of pension plans	21
Number of pension plan members	198 575
incl. active members	111 493
deferred participants ¹	46 371
retired persons ²	52 254

¹ Members who have left the pension plan, but retain deferred rights.

² Members, who have reached their retirement age, left the pension plan and receive pension capital in parts.

Table 6

Summary of the Movement of Pension Plan Net Assets [10]

Item (in thousands of lats)	31.12. 2011.
Net assets of pension plans at the beginning of reported period	111 928
Pension plan performance	-3 096
Net assets of the pension plans at the end of the reporting period	119 474
Annual profitability of pension plans*, %	-2.7

* Annual profitability of pension plans – annualized ratio of pension plan performance to average net asset value of pension plans.

The average net assets per unit of investment plans for the period of year 1998 till 2011 at the end of 31 December 2011 were (LVL) 563.6, hence the average annual assets per unit is (LVL) 42.4. The financial turmoil and the ensuing crisis had a major impact on private pension assets. The current economic and financial crisis has reduced the value of assets accumulated to finance retirement by around 20-20% on average, according to the latest OECD figures. Additionally, the increase in unemployment stemming from current economic conditions will reduce the amount of pensions' savings, which will negatively affect future retirement incomes. The crisis has not diminished the importance of private pension provision in a well balanced pension system. Private pensions are necessary to diversify the sources of income at retirement and, as such, they complement public pensions.



4. Common Objectives for Pensions

EU Member States are committed to providing adequate and sustainable pensions by ensuring:

- **Adequate** retirement income for all and access to pensions, which allow people to maintain, to a reasonable degree, their living standard after retirement, in the spirit of solidarity and fairness between and within generations;
- The financial **sustainability** of public and private pension schemes, bearing in mind pressures on public finances and the ageing of populations, and in the context of the three-pronged strategy for tackling the budgetary implications of ageing, notably by: supporting longer working lives and active ageing; by balancing contributions and benefits in an appropriate and socially fair manner; and by promoting the affordability and the security of funded and private schemes;
- That pension systems are **transparent** and **well adapted** to the needs and aspirations of women and men and the requirements of modern societies, demographic ageing and structural change; that people receive the information they need to plan their retirement and that reforms are conducted on the basis of the broadest possible consensus. [13, 16]

Pension policy remit includes provision of adequate levels of retirement incomes so as to ensure that people do not end up living in poverty in their old age. The old-age pension replacement rate measures how effectively a pension system provides a retirement income to replace earnings, the main source of income before retirement.

The 'Benefit ratio' is the average benefit of: (i) public pension; and (ii) public and private pensions, respectively, as a share of the economy-wide average wage (gross wages and salaries in relation to employees). Public pensions used to calculate the Benefit Ratio includes old-age, early pensions and other pensions (disability and survivors). [13, 28-29] In the countries with a high at-risk-of-poverty rate, the magnitude of the decline in the benefit ratio is quite strong. In Latvia, the average pensions of future retirees will fall (relative to average wages), leaving country citizens facing pension sustainability risks. Table 7 "Benefit ration for selected EU countries and trends in 2007-2060 (%)" shows results and prognosis before the onset of the crisis.

Table 7

Benefit Ratio for selected EU countries and trends in 2007-2060 (%) [13, 35]

	Benefit Ratio (%)					
	Public Pensions			Public and private pensions		
	2007	2060	% change	2007	2060	% change
Latvia	24	13	-47	24	25	4
Estonia	26	16	-40	26	22	-18
Lithuania	33	28	-16	33	32	-2
Denmark	39	38	-4	64	75	17
Hungary	39	36	-8	39	38	-3



The “Gross Average Replacement Rate” is calculated as the average first retirement pension as a share of the economy-wide average wage, reported by Member States in the 2009 long-term projection exercise. [13, 28-29] As shown in Table 8, the generosity of the first pension from public pension schemes is set to decline by 33% in Latvia. Latvia and Estonia show a considerable decline in the value of first pensions during the period between 2007 and raising pension sustainability concerns in these countries. The lower the first pension, the greater is the risk that future retirees will end up in poverty. The effect on private pensions of recent crises may also bring Latvia into this high risk group. With a falling replacement rate there will be a tendency to extend working lives and enhance future retirement incomes.

Table 8

Gross Average Replacement Rate for selected EU countries and trends in 2007-2060 (%) [15, 9]

	Gross Average Replacement Rate (%)					
	Public pensions			Public and private pensions		
	2007	2060	% change	2007	2060	% change
Latvia	33	22	-33	33	33	0
Estonia	28	16	-43	28	31	11
Lithuania	32	29	-9	32	37	16
Denmark	33	33	0	71	84	18
Hungary	49	38	-22	49	43	-12

Replacement rate is a case study based calculations that show the level of pension income in the first year after retirement as a percentage of individual earnings at the moment of take-up of pensions. In these calculations the year of retirement is 2012 making the last year of earnings 2011. However, the difference in income between these years is in real terms and adjusted for inflation.

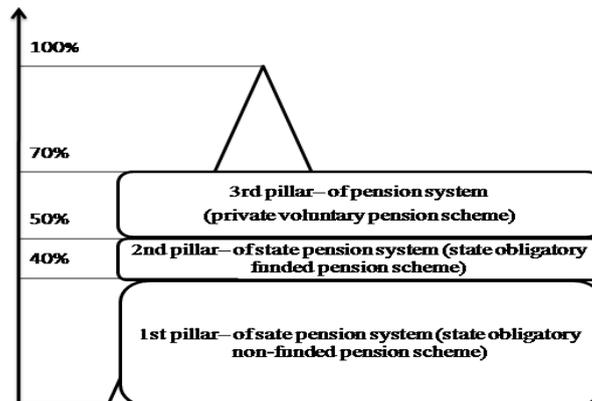


Figure 2. Theoretical replacement rate [authors' survey and calculations]



Theoretical replacement rate is a measure of the impact of new pension policies. The base case calculates the retirement pension received by a hypothetical person (male) working a full working life (40 contribution years), retiring at 62, and accumulating pension rights under the new pension scheme, and divides it by the projected wage in the immediate previous time period. This ratio is compared with the same theoretical ratio today for someone who would have accumulated pension rights under today's pension. It measures how reformed pension systems change future pension entitlements. It covers public pensions and mandatory private schemes, as well as private schemes that are considered to play a significant role in the future (see Figure 2).

The results in Figure 2 show the potential of net replacement rate that was the goal of the reforming Latvian pension system – the value of the pension retirement, after taxes, should reach up to 70% of the level of earnings before retirement, after taxes and contributions.

5. The Impact of the Crisis on Pension Schemes and Its Social Consequences

With the financial crisis and the economic downturn, Latvia has had to assess the short- and longer-term impacts on the various elements in their pension schemes. The crisis adds to the economic impact of demographic ageing on pension provision, although the consequences will critically depend on the depth and length of the downturn. For public “pay-as-you-go” pension systems, the slowing of the real economy is bringing additional fiscal pressures on financing and contributions. For funded schemes, the crisis has exposed their vulnerabilities in financial markets. In practice, the level of pensions will be affected by economic crisis, inflation, discount rate, profitability of pension plans.

Figure 3 shows that replacement rate, including all three levels, reaches only 42-45%. The crisis has highlighted the need to review the design of the Latvian pension system and the need for the right balance between PAYG (Pay-As-You-Go) systems and fully funded systems. Comparing the situation of Latvia with other European countries, one can conclude that replacement ratio is one of the lowest within the EU 27 countries (see table 7).

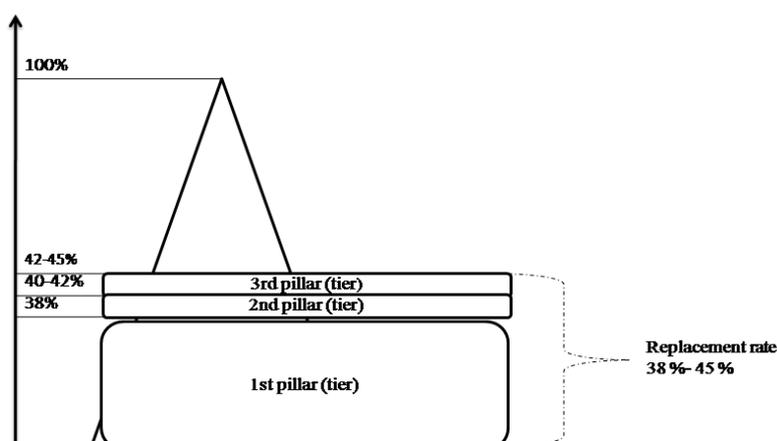


Figure 3. Replacement rate (2012) [authors' survey and calculations]



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The crisis will affect all pension designs and has revealed several shortages like the poor interaction between public and private pillars. Some governments, for example, Argentina, have *de facto* nationalized private pensions, and there are policy discussions about reverting back towards PAYG public pensions in some Central and Eastern European countries (Hungary, some activities in Estonia, Lithuania, and Poland). Macroeconomic stability and well-functioning labour and financial markets are needed for pension systems to work well. Pension reforms would not be enough – they would not reduce the annual replacement rates unless people work more and longer. Transparent pension policy from policy-makers and well-thought over legislation is also essential.

In order to achieve in Latvia the replacement rate is 70% of the pre-retirement income, it is necessary to change individuals' attitudes towards their old age. It is therefore important to introduce the 4th pension tier. No less important is the public policy of the pension system as a whole and its sustainability. The authors' study showed that the current pension system does not provide income for 70% substitution level, when the pensioner retired. In Figure 4, the authors show that with a merger of the 1st and 2nd level, saving in private pension funds and introduction of the 4th pension tier makes it possible to achieve 70% of pre-retirement income. The recognition of the fourth pillar highlights the important role of the financial and non-financial assets in financially supporting the individual or household during retirement.

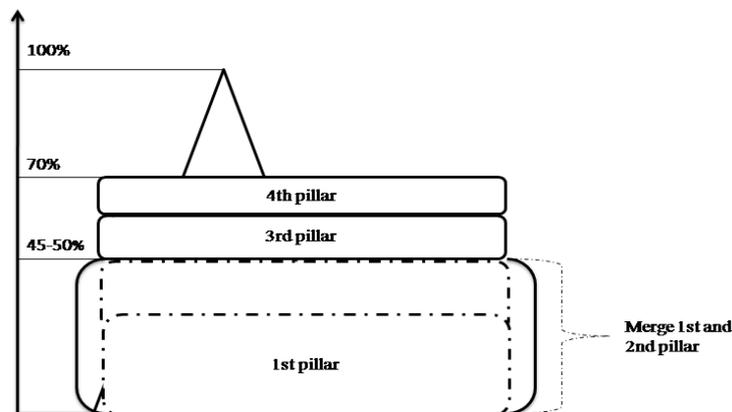


Figure 4. Replacement rate after pension reform [authors' survey and calculations]

Although the pension schemes of the European countries differ, all of them are facing the contemporary demographic and economic risks. Due to those, in order to preserve long-term fiscal sustainability and guarantee the benefits for contribution makers, the policy makers have the hard job of balancing between sustainability and adequacy concerns. The pension must be equal to person's pre-retirement income and by no means can poverty be tolerated. The aims to achieve are quite complicated: working longer must be rewarded and interrelated with one's pension; person's length of employment must be balanced with the size of a pension and supplementary occupational and personal schemes must be encouraged. To continue on reaching sustainability, it must be noted that the current crisis (and economic problems as such), due to lower growth prospects and increasing deficit and debt affect, influence the contemporary



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employees and particularly the younger generations. We must review the degree of financial market exposure and the design of risk sharing on funded pensions. Besides, the crisis affects all levels of pension system, which are interlinked, since macroeconomic stability and well-functioning labour and financial markets are essential for pension system as a whole to function well. Knowing about unemployment problems, working longer must be strongly encouraged – it is the only way to reach the adequacy-sustainability balance.

As an example, it is interesting to explore the changes made in the Hungarian pension system in 2010-2011. The objective of a comprehensive pension reform that is currently under way in Hungary is to return to the two-pillar pension system based on social solidarity, on the one hand, and voluntary contributions, on the other. [14, 1] The major changes that Hungary made to its mandatory two-pillar pension system in the latter half of 2010 were designed to address the perceived under-performance of the funded second pillar, encourage people to work longer and, in recognition and support of family life, to provide a fairer system for women who had child-rearing responsibilities and a qualifying service period of at least 40 years.

6. Criteria of Sustainability

Analyses of the world economic crisis impact have shown that all tiers of the Latvian pension system are threatened. Decreasing of salaries and increasing of unemployment lead to necessity of increase the share of first tier from 12% to 18% in order to preserve pension levels determined by law. Dropping of second and third tiers profitability to negative values leads to real losses instead of foreseen savings. Negative impact of crisis is natural. Full economic cycle, including increasing phase and decreasing phase, is much more important for social security tax payers. Normally payment period includes several economic cycles. During this period the main factors predicting result are:

- 1) impact of indexation of pensions after retirement;
- 2) impact of tax-rate during the social security payment;
- 3) difference between inflation and profitability of funded pensions;
- 4) impact of family support after retirement, compared with pension support.

In fact, achievement of the predicted replacement rate according the post crisis scenario based on fiscal discipline is impossible. First of all, it depends on difference between inflation and profitability. During the last decade inflation rate was substantially greater than profitability of the second and third tier pension funds. Therefore, in the moment of retirement, the impact on the funded pensions will be very small. Compared with funded pensions, the financial basis of the first tier (solidarity of ages) is not vulnerable by inflation. In Latvia the average salaries are three times smaller than the average productivity (compares to EU figures). That means there is an objective necessity to increase salaries faster than the inflation. Basis of solidarity pensions during decade have increased by more than 3 times; basis of the funded pensions during decade have increased only by several percent. Therefore, the first tier pension basis during working age increases much more than basis for the funded pensions. Effect of demography is much smaller than the one of inflation. First tier depends on indexation. The second and third tiers profitability depends on management and inflation rate. If profitability is smaller, sustainability of those tiers is under question.



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Welfare of retired person substantially depends on family support. Crisis will be the facilitating factor to rethink the role of the traditional family model. The right balance between family support, solidarity support and support from individual savings should be discussed again and again.

Sustainability can be analysed also from fiscal and macro-economic points of view. Latvia has comparably high rate of taxes from wages. During crisis attempts to increase tax rates of individual income tax as well as compulsory social insurance tax were performed. Such increasing stimulated illegal economy, but did not give positive fiscal effect. There are signs that both components of taxes from wages will be reduced in order to ensure greater revenues for pensions.

Therefore, criteria for sustainability of pension system could be formulated in such a way:

- 1) Pensions have to ensure:
 - a) increasing of pension base faster than the inflation rate;
 - b) compensation of inflation impact after retirement;
 - c) interest of employees to pay social insurance tax and minimal revenues standard for poor.
- 2) Compulsory social insurance tax as basis for state pensions must be so small as to stimulate active investments policy, creating jobs and economic development.
- 3) Substantial part of retired persons' welfare will depend on family support.

The discussion about sense of state funded pensions' allocation into national economics, about multiplicative effect of this allocation is also necessary. Assessment of such an allocation could be reached on the basis of public good concept-evaluating impact not only on future pensioners, but also on economics of state and local governments budget and households expenditures.

7. Conclusion

1. Sustainable Pension system must ensure that older people are not placed at risk of poverty and can enjoy a decent standard of living. 70% replacement rate for old age pensions in Latvia is not a realistic goal.
2. Financial sustainability of pension systems and adequacy of pensions are dependant upon efficiency, availability and security of provisions of state-funded and private pension funds. Administrative policy must stimulate reduction of bureaucracy and increasing of productivity of both private and public sectors in order to reduce replacement rate.
3. Sustainable pension system reduces impact of inflation on savings and pensions after retirement. Components of pension system, which cannot ensure such reduction, shall be excluded from compulsory social insurance.
4. Social policy must stimulate increasing of the role of family to ensure welfare of retired persons. The right balance between family support, solidarity support and support from individual savings is a challenge for further research and shall be basis for further pension reforms.
5. Experience of Hungary to modernize its pension system to achieve larger future pension for tax payers shall be evaluated in order to improve sustainability of Latvian pension system.



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THE STUDENT LOYALTY AS A PART OF HIGHER EDUCATION ORGANIZATION'S INTELLECTUAL CAPITAL

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Abstract

Customer relationship management of each organization is important both from a strategic marketing perspective: to attract new customers, encourage customer loyalty and provide a stable future income, as well as customer management plays an important role in the organization's intellectual capital management, which is one of the most essential issues of the contemporary management. [1; 2]

Higher education organization is a typical example of the intellectual organization. Since one of the goals of these organizations is in fact knowledge creation and dissemination and intellectual capital approaches have become very important for these organizations. Their investments in these organizations should mainly be invested in human capital and research. The inputs of these organizations and resources and the outputs are intangibles. [3]

Intellectual capital management plays an important role in customer equity management, where one of the purposes is to improve customer relationship management or customer loyalty. Customer loyalty is one of the most difficult measurable indicators. So far, the higher education organizations, creating intellectual capital assessment indicators, very little attention have paid to the depth of customer relations and customer relationship quality measurement. However, it should be noted that one of the latest intellectual organizations and institutions including the HEI management concepts are based on the fact that the service quality of the results are very closely related to the provision of client processes [4].

The paper aims to analyze the intellectual capital at higher education organization and emphasizes the role of student loyalty in it. The approach taken is theoretical and based on the combination of three different areas: intellectual capital management, customer relationship management, higher education institution management. The contribution of this paper is an overview of the empirical research previously conducted. Author points out possible future lines of research in this area.



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Introduction

Higher education organization is a typical example of the intellectual organization. Since one of the goals of these organizations is knowledge creation and dissemination then the intellectual capital approaches have become very important for these organizations. Both the inputs and the outputs of these organizations are intangible values [5]. So far, the higher education organizations relatively small attention has focused on intellectual capital management. The knowledge economy recognizes that organization's "tangible value" alone does not determine the total value of the organization [6]. The organization's "intangible values" are considered key success factors for organizations. Intellectual Capital Management focuses on the effective use of organization's resources, especially the "intangible value", as well as on the creation of values.

Intellectual capital approach is becoming increasingly important as a tool to assess, manage and report on the goodwill not only in companies but also in other organizations such as universities, research institutions and other intellectual organizations. Andriessen stresses the need to measure and monitor the intellectual capital for three reasons: to improve the internal management, to improve reporting capabilities and to comply with statutory regulations and assess the business [7].

The intellectual capital management plays also an important role in customer equity management. One of the objectives of customer equity management is the customer relationship or customer loyalty management. Customer relationship management, depending on its short- and long-term effects, as well as the functionality can be divided into three levels: transaction based data processing, the information-based value-added creation of customer-oriented services and products, and third level – customer relationship management, which is based on knowledge and value creation [2].

Each of these levels requires specific knowledge and abilities. So far, there have been made studies on customer relationship management development and implementation in higher education organization on the first two levels [4]. However, it is necessary to introduce a third level of relationship management, to assess and manage customer loyalty and ensure customer-oriented process management [2].

Customer loyalty is one of the most difficult measurable indicators. In fact, customer capital and customer capital measurement indicators reflect the organization's ability to convert customer relationships in sustainable competitive advantage [8]. Skyrme, D. points out – in a customer-oriented strategies, it is important to assess not only the statistical indicators of market share, targeting socio-economic indicators, etc., but also customer relations, or the depth of qualitative aspects, which is the "intangible value" [9]. So far, the higher education organizations, creating intellectual capital assessment indicators, very little attention has paid to the depth of customer relations and customer relationship quality measurement. However, it should be noted that one of the latest intellectual organizations' management concepts are based on the fact that the service quality of the results are very closely related to the provision of client processes [4]. Therefore it is necessary to establish a customer relationship management measurement methods and on its basis to build up the principles of customer relationship management. This type of management approach will help organizations more effectively monitor and manage the customer capital as a part of intellectual capital, as well as to build up a customer-centric processes that create additional value-added and create an organization's competitive advantage.



The paper aims to analyze the student loyalty as a part of intellectual capital at higher education organization. The objectives of this paper are:

- To analyze the loyalty definition;
- To analyze the role of loyalty in the intellectual capital formation;
- To analyze the role of student loyalty at university and the possible methods to measure it.

1. The Role of Loyalty in the Formation of Intellectual Capital in an Organization

The intellectual capital is a relatively new concept, both among researchers and among different organizations and there are different views on the definition of intellectual capital and its assessment methods. Intellectual capital is of particular interest in intellectual organizations, where it forms a significant part of the organization's value.

Intellectual capital concept was first published in 1969 by John Kenneth Galbraith. He emphasized that the intellectual capital means more than “pure intelligence”, it includes the “intellectual functioning” proportions rather. In this case, intellectual capital is not only the static value of the intangible asset, but rather as an ideological process.

Lev B. points out that the terms “intangible value” in accounting, “knowledge value” in the economics, “intellectual capital” in management and “intellectual property” in law are used synonymously and it means “non-physical claim the future benefits” [6].

The knowledge, skill and other intangible resources (assets) have become the drivers of competitive advantage in the conditions of complex and changing external environment [10]. In particular, the service sector depends on these drivers [11]. Here the customers play also an important role in intellectual capital creation. The customer is like a “co-producer” in knowledge-intensive and professional services service process. These services are mainly based on the application of knowledge to new situations, new knowledge creation and transfer to the customer. This knowledge is often valued as an organization's intellectual capital. So the customer capital is created in interaction with the customers.

Both the scientific literature, as well as corporate reporting practice, divides the intellectual capital mainly into three parts:

- human capital,
- organizational or structural capital,
- customer or relationship capital, which some researchers call also as a market capital.

The human capital includes the labor market size and quality as well as the set of separate individual competencies in an organization [12].

The organizational or structural capital is the “knowledge repository of an organization” [13]. Structural capital includes such assets (values) as a corporate culture, management processes, databases, organizational structure, patents, trademarks, financial relations.

The customer capital or relationship capital includes the organization's customers, customer loyalty, brand, product / service distribution channels, as well as customers' capital is perceived as its customer information and knowledge that is valuable to the organization [14].

Lim and Dallimore [1] classify the intellectual capital of service organizations from the strategic management and strategic marketing concepts. (Figure 1) Strategic Management in the



context of the company management is essential to human capital, corporate capital, business capital and functional capital. The other hand, strategic marketing in the context of the company's management is an important customer capital, supplier capital, strategic alliances or cooperation capital and investor capital.

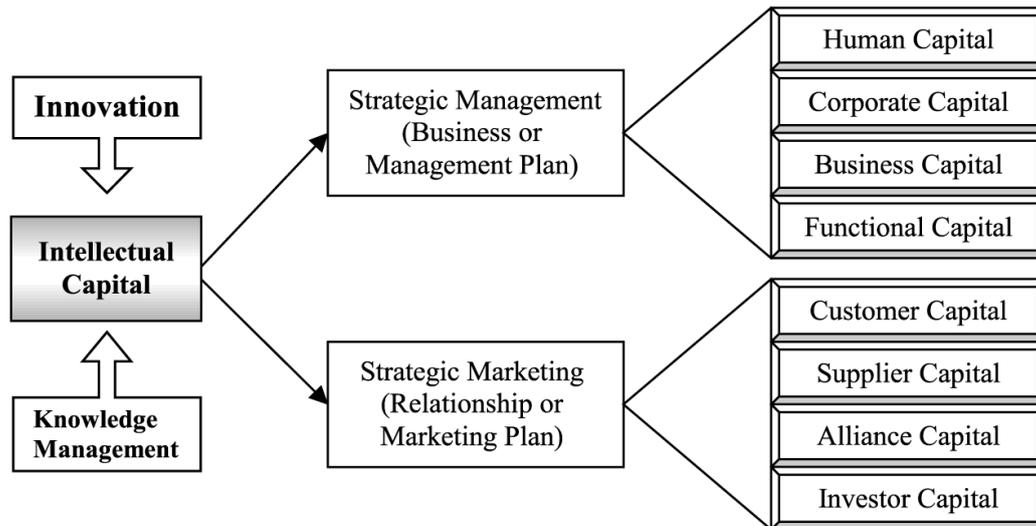


Figure 1. Organisational intellectual capital framework [1]

Lim and Dallimore agree that good relations with the customers are very important for the organization. Customer capital enhances the value to the organization. The clients are the best advertisement for many of the companies recommending companies' products and services to their friends, relatives etc. Therefore the companies have to pay attention to the client relationship management as a part from their intellectual capital management and pay attention to the customer loyalty.

2. Explanation of the Concept of Loyalty

For the term "customer loyalty" can be found several explanations. Customer loyalty is studied from both the customer behaviour and customer attitude perspectives.

The general meaning of customer loyalty is understood as a trust to the company through repeat purchases. Jacoby and Chesnut (1978) explain that loyalty is measured as the proportion of expenditure to a particular product or store [15]. Dick and Basu define loyalty as the correlation between individual relative attitudes and repeat purchase, taking into account the resale ratio, sequences and probability [16].

Oliver, R. points out that loyalty has several stages:

1. Cognitive loyalty – the available information about the brand makes the consumer to recognize that this brand is preferable compared to other alternatives. This loyalty builds mainly on brand information and belief;



2. Affective loyalty – attitude toward the brand has evolved over time on the basis of cumulative satisfaction;
3. Conative loyalty – the intent and motivation to re-buy the particular product. However, in this stage the intention to buy the product may also not be realized;
4. Action loyalty – at this stage the intention to buy the product is implemented, as well as have a desire and willingness to overcome obstacles that may arise, in order to purchase this product [17].

Although customer loyalty management and loyalty research has already begun in the seventies of last century, these studies are still incomplete, particularly in the service industry [18]. Customer loyalty in the service sector consists of complex processes and, unlike the loyalty to the product (or tangible value), the loyalty depends also on interpersonal relationships [19; 20].

Both the marketing literature and psychology, literature, loyalty has three dimensions [19]:

- behavioural dimension,
- attitudes dimension,
- cognitive dimension.

Jones', T. and Taylor's S.F. study shows that the loyalty manifest in service sector in two ways: as a behavioral dimension (an intention to re-purchase, special purpose and altruism), as well as the combined commitment / cognitive loyalty (customer's belief, altruism, a willingness to pay more, identification with the service provider) [19]. However, in this study were included only three types of services, but was not dealt with services that are "intangible / directed to the people" (according to 2001 Lowendahl service classifications [21]).

Segmenting customers according to their expressions of loyalty, however, still does not allow service providers to establish appropriate management strategies targeted at different customer needs. Many practitioners and researchers have recognized the need to investigate the loyalty formation processes and their influencing factors [17; 22]. Currently, academic and practical knowledge of customer loyalty determinants are incomplete [23].

Organizations need to understand what constitutes customer value and joy. For the purposes of customer-oriented approach and understanding the customer, it is possible to promote loyalty to the organization [24]. Marketing researchers have already identified some of the loyalty factors, but there is need for research to determine the relative role of individual factors (e.g., quality of service, attractiveness of obligations) and other possible contributing factors for each of the dimensions of loyalty [25]. Consequently, organizations need to understand the factors that affect the customer's decision in favour of a product or service that directly contribute to customer loyalty to the organization and its products or services.

3. Higher Education Organization's Intellectual Capital and the Role of Student Loyalty in It

Although the assessment of universities' performance in is not new, however, assessment of universities' intangible assets or intellectual capital as a system is a step forward for the university performance evaluation. Identification of the university's intellectual capital management at the university can contribute to competitive advantage for successful development, as well as the university's further strategic development, evaluation and improvement.



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Secunda, G. et. al. highlights the following main reasons why universities should explore and measure their intellectual capital [26]:

- intellectual capital identification can help guide the strategic focus on intellectual resources, and increase their ability to adapt to a changing environment;
- intellectual capital is one of the main organization's competitive advantages and improves the overall organization's performance.
- education and research rankings have to be based on a more systematic, objective and a common measurement system, which will also help to strengthen links between universities and businesses, using one common language;
- intellectual capital measurement system can help researchers understand the company and the industry's real needs, thereby promoting transparency in scientific work;
- intellectual plays a key role in strategic human resource management.

However, so far there isn't established a common methodology for an assessment of universities' intellectual capitals. There have been developed few initiative for intellectual capital reporting [27]:

- MERITUM – research project funded by European Commission;
- The Danish guidelines for IC reporting.
- Austrian Research Centres;
- Mandatory IC reporting for Austrian universities;
- OEU – observatory of European universities;
- ICU framework by Sanchez et al.

The above mentioned IC reporting methodologies emphasize more the universities' research mission and less the study mission.

One of the latest researches on IC measurement in universities has been done by Secundo, G. et. al. [26]. The researchers divides the universities' intellectual capital like the companies in three parts: human capital, organizational capital and relational capital. In this study the researchers classify the student performance as part of the universities; humane capital. However the researchers do not evaluate the staff and student satisfaction and loyalty to the organization.

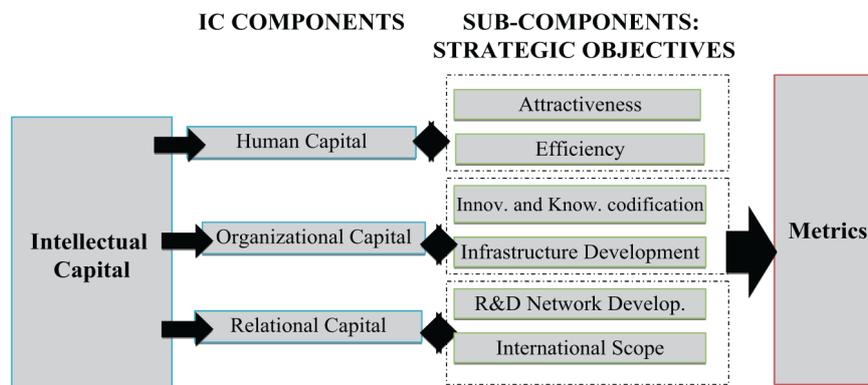


Figure 2. Framework for IC measurement in higher education and research [26]



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Recently Corcoles et. al. conducted a study on the stakeholders' need for information on higher education organization intellectual capital in Spain [28]. In the result of the study authors group the intellectual capital also into 3 categories: human capital, structural capital and relational capital. The human capital includes following indicators: academic and professional qualifications, mobility and scientific productivity, training, quality; structural capital: indicators for advances in innovation, intellectual property, quality of management; while the relational capital should include following indicators: employment of graduates, relationship with business, application and dissemination of research, student satisfaction, university's image, cooperation with other universities.

The author concludes from the studies summarized above, that so far carried out intellectual capital assessment methods have two significant disadvantages:

- intellectual capital in universities mostly has been identified from the information purposes. However, it should be noted that the intellectual capital identification and assessment can also serve as the organization's internal management support tool. From the management perspective the intellectual capital assessment helps organizations manage the "intangible" value, to build a resource-based strategies, monitor the activities of the results, implement business strategies, to assess the possible courses of action, as well as improve overall business processes [29],
- as well as intellectual capital assessment and reporting emphasises more on the universities' research mission and less on the study mission. In addition, in the intellectual capital assessments and reports were mainly included the quantitative indicators, such as the number of students, international student ratio etc., but less focused on student satisfaction and loyalty.

It is important to assess the customer loyalty both from the client-process management perspective, as well as from the intellectual capital management as the loyalty is a very important part of customer capital. It determines both the potential to attract new students, as well as the students' loyalty and the loyalty benefits.

4. The Assessment of Student Loyalty in the Context of Intellectual Capital Management

Intellectual capital assessment, management and reporting have two roles [30; 31]:

- it is used as a management tool within the organization, which helps develop and implement an efficient use of resources or knowledge-based strategy. Such internal reports can serve as an internal monitoring system strategy.
- as a communication tool for reporting on the development of organization's knowledge resources and on the creation of added value to the general public, including current and potential customers.

In this case, measurements are not passive aggregation of results, but such measurements help an organization to gather information about the organization's strategic development and progress. On the basis of this information organization's management may take decisions on future actions for a more positive development and / or growth.



It is necessary to develop an appropriate system of indicators for the observation and monitoring of intellectual capital. S. Babris emphasizes the need for more extensive research on how to assess value of each company's intellectual capital elements, but as long as such a unified system in management theory is not offered, each company's management must build their intellectual capital indicators system. Without use of such indicators it won't be possible to assess whether the company's intellectual capital is, or has not increased [32].

The client assessments of the organization and its services / products are of the importance in the customer equity, which in turn creates customer loyalty and also contributes to the attraction of new customers. Consequently, organizations need to monitor customer loyalty, and it is necessary to develop methods for determining the degree of customer loyalty in the organization and signal the customer loyalty increases or decreases.

There is a managerial need for simple and short instruments to measure loyalty. Recently researchers have used the structural equation modelling and model which is based on European Customer Satisfaction Index to identify the factors influencing student satisfaction and loyalty. [33]. The founders of the satisfaction-loyalty model are Fornell et. al. [34]. This model shows both the interaction among indicators and factors (such as perceived quality, satisfaction, loyalty) as well as provides the data for calculating the indexes for each of the factors.

$$Loyalty\ index = \frac{\sum_{i=1}^n w_i \bar{x} - \sum_{i=1}^n w_i}{9 \sum_{i=1}^n w_i} \times 100,$$

where

w – unstandardized weights of loyalty indicators

x – loyalty indicators

n – number of loyalty indicators

The previous studies show that this type of data analysis offers rich information for the university's management. The model serves as a barometer of student loyalty, which allows managers to simultaneously determine the factors influencing loyalty, and to compare the change in the students' loyalty. It gives an idea of customer capital formation in university and provides answers to the question of how to increase the client's capital.

Conclusions

The authors apply the intellectual capital management principles to higher education organizations. The intellectual capital identification and assessment can also serve as the organization's internal management support tool. The intellectual capital in universities mostly has been identified from the information purposes and more attention has been paid to the universities' research mission and less to the educational mission and the student role in it. The



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authors stress out the importance of customer capital in universities and the student loyalty is one of the most important parts of the customer capital.

So far there have been made studies on the factors which are influencing the loyalty, but less attention has been paid to the loyalty assessment. The authors offer to use the principles of the Fornell et.al developed satisfaction index model to determine the factors influencing loyalty and to measure the depth of the student loyalty to the university.

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PROJECT COST-BENEFIT ANALYSIS: AN IMPROVEMENT TO CONSTRUCTION PROJECT MANAGEMENT PROCESS

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Abstract

In perspective, the importance of attention to application of financial analysis results in the project management process of project financing, improving its quality, and economic interpretation of the analytical indicators, is growing.

Analysis of the progress of financial volume of concluded contracts over 2010, separated by dimension codes, reveals that the greatest progress belongs to the field of construction, where contracts for 374.4 million euro were concluded in 2010.

The purpose of the article is to analyze construction and infrastructure projects submitted for financing from the European Union structural fund resources, their cost-benefit analysis (CBA), and to assess the financial, social and economic indicators planned in the project submission against the actual post-project implementation indicators of the project life cycle.

During the analysis of project applications submitted by municipalities, the authors carried out an in-depth assessment and recalculation of the CBA of infrastructure projects. The analysis was based on a comparison of the indicators initially defined in the project submittal and the actual situation following the implementation of the project.

Introduction

The structural funds of the European Union envisage a total of 4.53 billion euro for Latvia in the planning period of 2007-2013, for the financing of various types of projects [1].

The EU structural funds are financial tools created in the European Union for the purpose of mitigating the differences in development levels of various regions. The objective of the



structural funds is to use long-term financing to even out both the social and economic inequality among the EU member countries.

The purpose of the article is to analyze infrastructure projects submitted for financing from the European Union structural fund resources, their cost-benefit analysis, and to assess the financial, social and economic indicators planned in the project submission against the actual post-project implementation indicators of the project life cycle process.

The following tasks were set to fulfil this purpose:

1. Define core elements of cost-benefit analysis and evaluate their compliance with the project management theory.
2. Study the cost-benefit analysis method documentation in the project initialization phase.
3. Assess the financial, social and economic indicators using the actual project indicators, and to assess the projects' potential financial, social and economic indicators for various project life cycles.

The results of the study were reflected using empirical data analysis, and analysis of the legislation and methods, and scientific literature.

1. Methods of Dynamic Analysis of Projects

Dynamic methods of estimation start from the point that between the moment of investment in engineering-investment project and the moment of realization of effects, based on such projects, there must be an adequate period of time. Since the static methods disregard the chronological structure of the cash-flows the dynamic methods eliminate this disadvantage. The benefit from dynamic methods is that calculation includes the value of money in the time frame [2].

Cost-benefit analysis (CBA) is the implicit or explicit assessment of the benefits and costs (i.e., pros and cons, advantages and disadvantages) associated with a particular choice. Benefits and costs may be monetary (pecuniary) or non-monetary (non-pecuniary, “psychic”).

In addition, a CBA is designed to:

- Be verifiable and repeatable;
- Provide an objective, accurate basis for decisions; and
- Be as streamlined as possible, avoiding unnecessary calculations.

CBA is an essential tool for estimating the economic benefits of projects. In principle, all impacts should be assessed: financial, economic, social, environmental, etc. The objective of CBA is to identify and monetise (i.e. attach a monetary value to) all possible impacts in order to determine the project costs and benefits; then the results are aggregated (net benefits) and conclusions are drawn on whether the project is desirable and worth implementing. Costs and benefits should be evaluated on an incremental basis, by considering the difference between the project scenario and an alternative scenario without the project [3].

The technique used is based on:

1. forecasting the economic effects of a project,
2. quantifying them by means of appropriate measuring procedures,



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3. monetising them, wherever possible, using conventional techniques for monetising the economic effects,
4. calculating the economic return, using a concise indicator that allows an opinion to be formulated regarding the performance of the project.

The usefulness of introduction of investment projects in their cost-benefit analysis is characterized by three main parameters: NPV (Net present value), IRR (Internal rate of return), or B/C (benefit-cost ratio). It is mandatory that these indicators be calculated when carrying out the financial and economic analysis before investment project applications for the EU Structural Fund and Cohesion Fund financing are submitted.

The internal rate of return (IRR) and the net present value (NPV) are both discounted cash flow techniques and models. This means that each of these techniques looks at two things: 1) the current and future cash inflows and outflows (rather than the accrual accounting income amounts), and 2) the time at which the cash inflows and outflows occur. In other words, these models consider the time value of money: a euro today is more valuable than a euro in one year; a euro received in three years is more valuable than a euro received in five years, and so on [4].

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1+r)^t} = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n} - I_0 \quad (1)$$

where

- I_0 – initial investment;
- CF – cash flow income at the end of t^{th} period;
- r – discounted rate;
- n – number of project implementation years [5].

CBA is most commonly used for *public decisions* – policy proposals, programs, and projects, e.g., dams, bridges, traffic circles, riverfront parks, libraries, drunk driving laws, and anything else the government might fund. For Major projects the EC requires Member States to submit a Cost-Benefit Analysis (CBA) and then takes a specific co-financing decision. The applicant should show to the EC that, after a suitable CBA, the project's economic net present value is positive, if negative, the project will be immediately rejected. In the case of revenue generating projects, the financial profitability is assessed in order to establish whether the project actually needs a grant and to what extent this applies.

LVL 1 in hand today is worth more than a promise of EUR 1 in the future because:

- money can be used in the meantime (i.e. for earning interest or with alternative investments)
- inflation may lower real value of money
- unforeseen circumstances may prevent you receiving the money you have been promised [6].

The financial plan should demonstrate financial sustainability, which is that the project does not run the risk of running out of money; the timing of fund receipts and payments may be crucial in implementing the project. Applicants should show how in the project time horizon, sources of financing (including receipts and any kind of cash transfers) will consistently match



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disbursements year by year. Sustainability occurs if the net flow of cumulated generated cash flow row is positive for all the years considered [7]

Basically cost-benefit analysis is made up of three parts:

- a technical-engineering part in which the context and technical characteristics of the project are identified;
- a financial analysis that represents the starting point for the CBA and that leads the analysis from the point of view of the private investor;
- an economic analysis, the true core of CBA, which, starting with the financial analysis that serves to identify all the income and expenditure items and the relative market prices, applies a series of corrections that allow us to pass from the point of view of the private investor to that of the public operator [8].

An investment project is accepted or rejected depending on its NPV (Table 1).

Table 1

Net present value in decision making [9]

If	It means	Then
$NPV > 0$	The investment would add value to the organization	The project may be accepted
$NPV < 0$	The investment would subtract value from the organization	The project should be rejected
$NPV = 0$	The investment would neither gain nor lose value for the organization	We should be indifferent in the decision whether to accept or reject the project. This project adds no monetary value. Decision should be based on other criteria, e.g. strategic positioning or other factors not explicitly included in the calculation.

The situation where $NPV = 0$ requires an additional interpretation. Such investment project produces a zero effect; therefore, undertaking such a project is rarely proposed in practice. The main reason is the investor's opinion that the project could become loss-making if even slightest changes in the market situation occur. However, upon eliminating the probability of such risk and given the absence of more profitable alternative investments, the project could be undertaken as the investor is indifferent to other options producing the same effect. In addition, the company (or investor) may have other objectives, – for example, upon increasing production volumes to get a larger market share, attain some social/public objectives, etc. [4].

CBA provides the project planner with a set of values that are useful to determine the **feasibility of a project from an economic standpoint**. Conceptually simple, its results are easy for decision makers to comprehend, and therefore it is greatly favoured in project assessments. The end product of the procedure is a benefit/cost ratio that compares the total expected benefits to the total predicted costs. In practice CBA is quite complex because it raises a number of assumptions about the scope of the assessment, the time-frame, as well as technical issues involved in measuring the benefits and costs [10].



2. Project Dynamic Analysis Research

The authors' research selection included a CBA of projects supported within the framework of the activity 3.6.1.1. *Promotion of National and Regional Development Centre Growth for Balanced State Development* of addendum to the action programme *Infrastructure and Services* financed by the European Regional Development Fund. The programme is one of the most significant structural fund programmes aimed at the growth of the national and regional development centres, as it provides financing for various municipality infrastructure projects.

In the planning period of 2007-2013, the activity 3.6.1.1. *Promotion of National and Regional Development Centre Growth for Balanced State Development* of the *Polycentric Development* priority of addendum to the *Infrastructure and Services* has 209,216,720 LVL available, which includes an ERAF co-financing of LVL 177,834,211, and a national public co-financing of LVL 31,382,509 (a State budget grant).

In the 2007-2013 planning period some specific European Union fund projects have to perform their cost-benefit analysis (CBA) in compliance with the European Union guidelines.

As part of the 3.6.1.1. activity, 69 municipality infrastructure projects have been supported. Analysis of the municipality project submissions and CBA revealed that none of the 69 project submittals provides a detailed comparison of project alternatives.

9 of the 69 projects approved were implemented by January 1, 2011. The research performed by the authors provides an in-depth analysis of the completed projects.

Nevertheless, all CBAs analyze alternatives *with the project* and *without the project*, but do not justify the expected project approach and the selected alternative. In 4 project applications the submitter had not indicated the operational costs in case the project is not implemented, thus indirectly proving that the implementation of the project would cause the everyday operational and infrastructural costs to increase. That means that the result of the cost-benefit analysis is erroneous and the B/C ratio in the 4 projects after recalculation is below 1, i.e., the project is not acceptable.

During the analysis of project applications submitted by municipalities, the authors carried out an in-depth assessment and recalculation of the cost-benefit analysis of infrastructure projects. The analysis was based on a comparison of the indicators initially defined in the project submittal and the actual situation following the implementation of the project.

In contrast to the theoretical cost-benefit analysis models, the European Union and Latvian national CBA guidelines (Planning period 2007-2013, working document No. 4 *Methodical Instructions for Cost and Benefit Analysis*) state that the length of cash flow periods must correspond to the project's life cycle, which includes the project's implementation period. Consequently, the project's life cycle is not separated from the *product's* life cycle.



Table 2

Comparison of the main parameters of project cost-benefit analysis

No.	Main elements and parameters	Initial values		Updated values	
		Value undiscounted	Value discounted	Value undiscounted	Value discounted
1.	Project's life cycle (years)	20		20	
2.	Financial discount rate (%)	5%		5%	
3.	Investment costs total (LVL, undiscounted)	3 813 788		1 444 250	
4.	Investment costs total (LVL, discounted)		3 813 788		1 444 250
5.	Project's residual value (LVL, undiscounted)	1 879 073		729 918	
6.	Project's residual value (LVL, discounted)		708 203		275 098
7.	Income + saved costs (LVL, discounted)		123 650		123 650
8.	Operational costs (LVL, discounted)		-364 744		-364 744
9.	Net income = income + saved costs – operational costs + project's residual value (LVL, discounted)		467 110		34 005

Table 2 shows the considerable change from the initial calculation is due to an investment cost reduction from 3,813,788 LVL to 1,444,250 LVL, which has a potentially significant positive effect on the benefit volume. As a result, the residual value of project investments decreases as well – from 1,879,073 LVL to 729,918 LVL, which in turn has a negative effect on the benefits.

Table 3

Change in financial analysis indicators

Indicator	Values (initial)	Values (updated)
Financial net present value of the investment (FNPVc), LVL	-3 346 679	-1 410 245
Financial internal rate of return on the investment (FRRc)	-4.51%	-6.28%
Financial net present value of capital (FNPVk), LVL	-107 875	-188 111
Financial internal rate of return on capital (FRRk)	4.1%	0.5%

Analysis of the actual financial indicators of a project (Table 3) leads to a conclusion that, even though the investment costs have decreased, the net present value has reduced as well and the internal profit norm has decreased to 0.5%. Of the macroeconomic indicators, construction cost and work wage decrease has affected the financial analysis.



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The financial indicators change substantially due to the decreasing construction costs. The FNPVc indicator improves materially, as the absolute investment decreases, but the FRRc is negatively affected as the project's predicted residual value diminishes considerably, and the project investment-related activity costs retain their initial level. The FNPVk and FRRk indicators are affected, too, which can be explained by substantial decrease in the project's residual value.

Still, it is important to define the social and economic benefit of implementation of the projects based on definition of social and economic analysis and potential benefits.

During analysis of the projects' social and economic evaluation, the authors found definitions of the following indicators, which are not directly related to the operations performed as part of the project and the effect on which by the project is difficult to assess:

- Population increase,
- Employment increase,
- Decrease in unemployment,
- Increase in GDP per capita,
- Increase in the numbers of tourists,
- Municipal income increase.

When updating the social and economic calculations, the authors did not include in the cost-benefit analysis indicators that are not directly related to the project implementation or directly influenced by the project. The calculations included the actual accountancy indicators at the end of the project implementation period. The social and economic calculations included the value of benefit in terms of money. Although the FNPV resulting from the financial analysis is negative, a positive economic value of the project benefits must be proven in order to receive the state and EU support. The social and economic calculations are the ones where mistakes are made most often, since municipalities define their benefits in cash, without a clear and justified assessment methodology for the resulting indicators.

Table 4

Change in social and economic analysis indicators

No.	Main parameters and indicators	Values (initial)	Values (updated)
1.	Economic net present value (ENPV)	2 440 820	974 329
2.	Economic rate of return (ERR)	20.67%	6.8%
3.	Benefit/cost ratio (B/C)	2.68	1.15

Seeing that the programme includes financing of projects related to performance of the autonomous functions of municipalities, their financial net present value (NPV) in all of the CBAs included in the research selection was negative. It can be explained by the fact that municipality infrastructure and operation do not always give sufficient income to cover the investment and operational maintenance costs. At the same time, the implementation of such projects is important to ensure the municipalities can carry out their functions defined by the legislation.



Table 5

Cash flow calculation for an infrastructure project for a 5-year life cycle

Item No.	Factor	Years					
		0	1	2	3	4	5
1.1.	Economic benefit		122 790	289 006	345 852	345 852	345 852
1.2.	Economic costs	-479 948	-1187673	-397 658	-50 828	-52732	-52 732
1.2.1.	Investment costs	-479 948	-1 156 487				
1.2.2.	Operational costs		-31 186	-397 658	-50 828	-52 732	-52 732
1.2.2.1.	Everyday operation costs		-31 186	-72 339	-50 828	-52 732	-52 732
1.2.2.2.	Periodic operational costs			-325 319			
1.3.	Net cash flow	-479 948	-1064883	-108 652	295 024	293 120	293 120

Analysis of an infrastructure project's economic calculation results from a 5-year life cycle period and leads to a conclusion that, due to the considerable investment costs, the economic benefit does not exceed the economic costs, which results in negative net cash flow.

Table 6

Social and economic analysis results for a 5-year project life cycle

Financial analysis indicator	Calculation, LVL
Economic benefit	1 449 352
Economic costs	-2 221 571
Net cash flow	-772 219
Economic net present value (ENPV)	-874 800
Economic rate of return (ERR)	-17.57%
Benefit/cost ratio (B/C)	0.65

The results of the calculation demonstrate that over the period of five years the project is disadvantageous not only from the point of view of a financial evaluation, but also that of social and economic analysis. The economic net present value is 874,800 and the economic rate of return – 17.57%. From the calculation of the benefit/cost ration for a 5-year project life cycle period, it was concluded that it is 0.65 and fails to reach the establish level of 1, which would grant a positive decision on project financing.

In view of the negative results of the 5-year project life cycle, the authors analyzed the potential calculation results for an 11-year project life cycle. The results show that the benefit/cost ratio rose to 1.39. The economic rate of return grew from negative to 8.12% in the meantime.

In social infrastructure improvement projects, social and economic benefit and positive evaluation in the case under question can only be achieved in the long-term (Table 7).



Table 7

Cash flow calculation for an infrastructure project for an 11-year life cycle

Item No.	Year Assumptions	0-5	6	7	8	9	10	11
		1.1.	Economic benefit	1 449 352	345 852	345 852	345 852	345 852
1.2.	Economic costs	-2 221 571	-55 794	-52 732	-52 732	-52 732	-52 732	-52 732
1.2.1.	Investment costs	-1 636 435	-3 062					
1.2.2.	Operational costs	-585 136	-52 732	-52 732	-52 732	-52 732	-52 732	-52 732
1.2.2.1.	Everyday operation costs	-259 817	-52 732	-52 732	-52 732	-52 732	-52 732	-52 732
1.2.2.2.	Periodic operational costs	-325 319						
1.3.	Net cash flow	-772 219	290 058	293 120	293 120	293 120	293 120	293120

According to the CBA methodology established by the European Commission, when project life cycle is increased (including the project implementation period) to 11 years, it can be concluded that in the 6th year of the project life cycle the net cash flow values become positive. The results of the social and economic analysis for 6th year of the project life cycle are shown in the Table 8.

Table 8

Social and economic analysis results for an 11-year project life cycle

3.1.	Economic benefits	3 524 464
3.2.	Economic costs	-2 541 025
3.5.	Net cash flow	983 439
4.1.	Economic net present value (ENPV)	243 357
4.2.	Economic rate of return (ERR)	8.12%
4.3.	Benefit/cost ratio (B/C)	1.39

Upon analysis of the cost-benefit analyses performed by project submitters and the method documentation by the European Commission, the authors concluded that the European Union has already defined the project life cycles of various fields using method documentation, encompassing periods of 15 to 40 years (Table 9).

This unified approach is used only for the assessment of the project programme level, while the project and product life cycle should be determined according to the actual circumstances. The CBAs analyzed by the authors also showed that the recipients of the financing planned for extra investment in the created infrastructure after 5-15 years. Such additional investments in infrastructure are essentially new projects in existing objects, therefore the base project life cycle should be set shorter than indicated in the method documentation; according to the authors' financial and social and economic indicator recalculation, and a project's social and economic benefits have a positive effect only in the long run.



Table 9

Project life cycle in different fields [2]

Field	Length of project life cycle (years)
Energetics	25
Water management, environment infrastructure	30
Railroad	30
Ports and airports	25
Road infrastructure	25
Industry	10
Other services	15

In 5 of the implemented 9 projects the municipalities suggested amendments to the project financing contracts, asking for exclusion of indicators that they could not prove by the end of the project implementation term, e.g. increase in the number of inhabitants, GDP, or popular satisfaction. Considering that the indicators were included in the initial social and economic cost-benefit calculation, the changes influence the results of the performed CBA.

A related problem is that the objectives themselves are often not well thought through or clearly articulated, clouding the development of appropriate performance monitoring indicators and making monitoring and evaluation even more difficult. Results in cost/benefit analyses tend to be notoriously inaccurate, as large infrastructure projects systematically have high cost overruns. To make matters worse, the projects that have the most exaggerated benefits and the highest cost overruns tend to generate much lower benefits than expected.

Many municipalities face problems when optimal current and capital repairs policies are applied in practice. The optimum time necessary for a more sizeable renovation or reconstruction is a year, when the present value of renovation/reconstruction costs is lowest.

Conclusion

The main advantage of CBA compared to other traditional accounting evaluation techniques is that externalities and observed price distortions are also considered. In this way market imperfections are explicitly considered, which are reflected neither in corporate accounting nor, as a rule, in national accounting systems.

The role and significance of CBA in the decision-making process for infrastructure and construction project financing, as it is important that investment be made with the financial input most appropriate given the planned benefit to come from the project's implementation process.

The CBAs analyzed by the authors also showed that the recipients of the financing planned for extra investment in the created infrastructure after 5-15 years. Such additional investments in infrastructure are essentially new projects in existing objects, therefore the base project life cycle should be set shorter than indicated in the method documentation; according to the authors' financial and social and economic indicator recalculation, a project's social and



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economic benefits have a positive effect only in the long run. The quality of ex ante CBA varies substantially and may not cover essential information or may even contain errors.

In particular, there could be inaccuracy in the estimate of future demand (and particularly demand overestimation) and investment cost (and particularly cost overruns). In addition, CBAs may consider project periods that differ from those indicated in the CBA guide. Other methodological adjustments carried out relate to exclusion of taxes and duties and adjustments in the calculation of externalities. A true cost-benefit analysis requires a solid grounding in economic theory and techniques, which is beyond the training of many evaluators. It may be necessary to hire a consultant if this type of analysis is desired. Critics feel that many cost analyses are overly simplistic, and suffer from serious conceptual and methodological inadequacies. There is a danger that an overly simplistic cost-benefit analysis may cause an intervention to fail, by promoting expectations that are unrealistically high, and cannot really be achieved. This may result in political backlash which actually hurts future funding prospects instead of helping. There are no standard ways to assign currency values to some qualitative goals, especially in social programs. For example, how do we value things such as time, human lives saved, or quality of life? The best-known cost-benefit studies have looked at long-term outcomes, but most program evaluations don't have the time or resources to conduct long-term follow-up studies.

The authors' analysis proves that municipality infrastructure projects are not always financially and economically efficient until additional investment is received. The European Commission should specify guidelines with a shorter post-project life cycle because every additional investment after the end of the project has to be considered a new project.

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FOREIGN STUDENTS AT UNIVERSITY OF LATVIA – IMPORTANT PART OF THE UNIVERSITY

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Keywords: foreign students, student mobility, study environment

Abstract

Foreign students in higher education establishments are becoming more and more important issue in the improvement of higher education institution attractiveness and competitiveness in the international education space. In recent years student mobility is becoming more and more important factor for effective university work. It requires attractive international study environment suitable to the majority of worldwide nations and cultures. Those issues are studied in academic research as well as prepared large number of policy documents. The paper/report is based on the theoretical studies as well as surveys of the foreign students of the University of Latvia. The goal of the research is to investigate the feedbacks from international students about their experience at the University of Latvia and offer some steps for more efficient solutions that would improve studies at University of Latvia for foreign students and make the University of Latvia more attractive for foreign exchange students. Comparisons of some indicators at University of Latvia, University of Tartu and Aarhus University are carried out. Research methods: theoretical study of relevant theory, statistical data, international rankings and documents. Quantitative surveys of foreign students are used. For data analysis of survey results indicators of proportions are used.

Theoretical Background

Internationalization might be considered as the main tool for preparing universities to nowadays society and its needs. Recently the degree of usage of English language has increased



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remarkably and, therefore, universities should follow current higher education trends in order to develop its visibility at the international education space. Leask (Laesk, 2007:33) states that globalization has put an inevitable challenge on higher education institutions. The researcher proposes that universities “have a clear responsibility to prepare graduates with international and intercultural perspectives, who can be active and critical participants in world society”. Globalization has increased people mobility and in the 21st century more than ever people are engaged in international activities, for example, studies abroad and international job market. Consequently, higher education institutions should focus on internationalization in their study environment more profoundly. Beelens et al (Beelens, 2007:4) implies that ‘if universities manage to prepare only a small percentage of their students for that world (i.e. those who actually go and study abroad), they will miss their goal’. The goal of the universities should be that all students should be prepared with the necessary international and intercultural experience in order to become competitive citizens in the globalized world. Beelens et al (Beelens, 2007:4) confirms that we all live in the world where everyone is influenced by the globalization processes. He states that “[students] will all have an international career, even if they live in their home country”. It might be an occupation in an international company, an international colleague in a local company, cooperation with overseas partner institutions etc.

Nowadays internationalization process is one of the most discussed issues at the higher education conferences and meetings. Although the term ‘internationalization’ seems to be widely known, still it means different things to different people and there is a great variety of the interpretations of the term. Generally, international education can be defined as “education which familiarizes the students in the international context, with the ways and traditions of other countries” (Marga, 2003:259). The internationalization of higher education institutions evolves more complex elements such as “adopting universities to the conditions of globalization in science, communication, and economy” (Marga, 2003:259). In other words, the universities try to reach the top level standards of the internationalization of higher education to ensure the competitiveness among the vast number of universities. Organization for Economic Cooperation and Development (OECD) puts forward the most appropriate definition: internationalization can be understood as “the concept and the process of integrating an international dimension into teaching, research and service functions” (OECD, 1999:3). Internationalization processes include many activities that are set as goals to ensure successful international development. Moreover, internationalization process in higher education institutions should cover all the body of the institution, however, “many [...] still associate internationalization with going abroad for study or a placement” (Beelens, 2007:1). Great emphasis should be paid not only on the mobility and placements but also on the study programmes, curriculum, staff development, international cooperation and research.

Teekens (Teekens, 2007:6) states that internationalization process in the nowadays globalized world can be characterized by four indicators: “internationalization concerns collective efforts”, “mobility is based on market principles”, “it happens worldwide”, “mobility focuses on full-degree mobility, rather than exchanges”. This statement claims that cooperation and joint programmes with other partner universities might facilitate the internationalization process better than coping with the problem individually [as a result both universities are beneficiaries]. Teekens (Teekens, 2007:6) continues that “in long run, institutional cooperation offers a better potential for structural cooperation and curriculum development than individual



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staff contacts”. Better results can be reached if the whole institution is involved in the cooperation thus ensuring more efficient cooperation and outcomes than of one or two persons only. Additionally, the statement implies that there has appeared a new trend from short-term mobility focusing on a full-degree mobility thus emphasizing the importance of recruitment of international full-time students.

Maringe (Maringe, 2009) claims that successful implementation of internationalization raises the transnational recognition and higher education institutions’ position in the higher education space. Additionally it attracts more foreign students thus increasing the institutions budget from international student fees. However, one should not refer to the internationalization process as a mean of gaining profit, but concentrate on the added value the internationalized university may offer to the students, namely, “open minds, generosity toward other peoples, know how to behave in other cultures, and how to communicate with people with different values and customs”(Roth, 2010). With regard to the internationalization process at the University of Latvia, remarkable improvements are urgent in the field of international study environment, including course offer for exchange students, updated webpage for international students, and international competence development of academic and administrative staff.

The Head of International Relations Department of the University of Latvia Mrs. Alina Gržibovska: “...situation among universities in the Baltic States and universities in Denmark or Norway differ in one significant aspect, namely, to the governments’ support to state universities. While in Latvia universities have to deal with the improvement of international environment within university’s own budget, state universities in Denmark and Norway receive additional funding from the state for each foreign student including full time and exchange students enrolled at the university”. Carroll-Boegh and Takagi (Carroll-Boegh, 2006) confirm that universities in Denmark have greater potential “because their funding is based on students completing each year of the course”. Therefore they [state universities in Denmark and Norway] have more possibilities to develop effectively and create more successful international study environment.

Every university has its own development plan, namely, in which directions to develop with greater efficiency and how to maintain the successful experience. The definition of the term strategy should not be considered only as the plan with set goals. According to Weber (Weber, 2006), ‘in order to become stronger and to improve, the whole institution needs to define and implement a long-term strategy on the basis of its strengths and weaknesses, as well as its opportunities and threats’. The most efficient further development plan can be composed after careful analysis of weaknesses and strengths of a respective university body. Research results of Van der Wende (Van der Wende, 2007) have proved that “successful internationalization strategies depend on the right mix of competitive and cooperative options”. Therefore, each university should find its own suitable methods and further steps for development in order to become a successful and internationally attractive higher education institution.

Nowadays university rankings have become as indicators of a prestige and quality of education the respective university may offer. Marginson and van der Wende (Marginson, 2007) claim that ranking has become a global phenomenon that has lead to the high competition among higher education institutions worldwide. However, one should note that universities do not have equal background in the worldwide competition, because ‘the



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universities that have established themselves earlier in global higher education have the competitive advantage' (Horta, 2009), and the so-called 'newcomers' have to compete with a double energy and impetuosity.

Although in academic research is considered rankings as a 'driver of change' (OECD, Rankings) it can also be associated with a threat to institutions' reputation, attraction of foreign students and international partnerships. Moreover, OECD suggests that 'rankings influence the willingness of others to partner with them or support their membership of academic/professional associations' (OECD, 2007), which means that international rankings have an important influence on partnership negotiations. On one hand, it might be positive that various ranking tables are presented thus ensuring the variability between the higher education institutions. They might differ from the evaluation requirements, selected geographical location, etc. On the other hand, one might be confused of the various ranking tables when searching and analyzing the data of a particular university. This report is based on three different tables such as Ranking Web of World Universities, QS World University Rankings and Academic Ranking of World Universities.

Van der Wende (Van der Wende, 2007) points out that "a common problem is that these ranking systems evaluate universities as a whole (ignoring that they have different goals and missions and that they are internally differentiated)". The main disadvantage is that all worldwide universities are evaluated by equal requirements, but one should take into consideration that countries differ from each other as well as their labour market needs, cultures, national policies, values etc. Van der Wende (Van der Wende, 2007:280) states that universities should be evaluated by "[...] their various functions taken separately, including the different aspects of research and teaching and the different disciplines, locations and discrete service functions". It might be defined as unfair when compared, for example, top ten universities in the USA with the universities in relatively poor and underdeveloped countries. One might say that this is an arguable issue and each ranking table has different representative role.

One of the tools of becoming an internationally recognizable institution is a successful brand. Branding of the universities has become a topical issue with regard to the transnational recognition. In other words, branding is closely related to the reputation building of the higher education institution with a common aim of 'creating an innovative 'world-class' university' (Aula, 2011). The definition of a successful brand implies 'a name, symbol, design, or some combination, which identifies the 'product' of a particular organization as having a sustainable competitive advantage (Chapleo, 2010). The definition suggests that branding is a complex challenge with a great responsibility in representation of a respective institution. Chapleo (Chapleo, 2010: 169-183) continues that creation of a successful brand is based on three characteristics: an effective product, a distinctive identity and added values.

Internationalization is a complex process and cannot be successfully achieved within experience of a single institution; therefore, international cooperation is one of the tools of introducing transnational view, experience, and culture in the respective institution. Usually collaboration agreements are signed when signatories are aware that cooperation will be mutually beneficial to both parties, in other words, a successful knowledge transfer and sharing of experience. International cooperation is based mainly on exchange level including the exchange of students, staff members (both academic and administrative), researchers, scientific discoveries etc. The main aim of international collaboration is the exchange of knowledge and



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experience, for example, the experience of other cultures, teaching and learning methodologies, knowledge sharing in the field of science, organizational and administrative experience etc.

Teekens (Teekens, 2007) suggests that 'learning from other countries and universities is not only useful, but extremely inspiring and a motivation as well'. From the personal experience it can be said that after the business trip to a cooperating university the level of inspiration is remarkable. The amount of ideas, experiences and suggestions that would facilitate the work or create better study environment is significant. Every employee engaged in the internationalization process should have an opportunity to go abroad and become acquainted with the experience of a partner university. Sursock et al. (Sursock, 2010) states that 'today more attention is being paid to quality rather than quantity of partnerships and there is greater critical awareness for the need to select partners carefully and purposefully'. Many universities currently are reevaluating their partner universities and even cancelling or not prolonging their cooperation agreements. As the reasons might be considered the ineffectual cooperation where, for example, with regard to student mobility, one of the parties send students with insufficient language or background knowledge that is not suitable for the host university. In such cases the study level is endangered and weakens the overall quality of the study not only for the students but for all the host institution. Consequently, as Kehm and Teichler (Kehm, 2007) suggest, the partner institutions have become more selective in their choice of partners. Universities are interested in cooperation with respectful and high level universities that assure the quality. Kehm and Teichler (Kehm, 2007:266) introduce that currently has appeared 'a shift from cooperation to competition', which creates a paradox situation, namely, universities want to cooperate with the best partner universities, but at the same time keeping in mind that the partner universities are the competitors in the international education space. Cultural diversity is one of the characteristics of the internationalization processes and is regarded as a benefit for international education space. Laesk (Laesk, 2007) proposes that 'culturally diverse campus provides a window on the world' which means that different cultures can be merged without necessarily going abroad. On one hand it is a valuable experience for all students and lecturers, but on the other hand it puts new challenges to the university, namely, the study environment should be well prepared for international knowledge transfer. The preferable outcome would be that the knowledge and experience obtained at the University of Latvia would be better and of a higher quality than at the students' home university. Therefore, in order to become open to different cultures within the domestic environment, the university should increase the quality level of the studies so that it suits all students both local and international, and preferably the most talented and motivated students. Teekens (Teekens, 2007) suggests that 'when dealing with intercultural competences in higher education we really move from the issue of internationalization to what could be called 'interculturalization'. He means that we become more aware of cultural diversity and it becomes the leading point in the process of internationalization with regard to the tolerance and understanding when setting up the international classroom. Although Laesk (Laesk, 2007) claims that diversity on campus does not definitely guarantee internationalization of a university, according to Bok (Bok, 2010) "diversity can certainly enrich education". Cultural diversity can be considered as the added value of a particular university because 'it can teach [students] to appreciate differences in culture and customs and outlook on life and it can teach them ultimately to adapt more easily to a globalized, cosmopolitan world' (Bok, 2010:21). The main advantage is that one does not have to go abroad to get acquainted with different cultures and nations.



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However, one should be aware that still many things should be improved in order to enjoy true satisfaction. If the university is willing to attract incoming exchange students, Beelens et al (Beelens, 2007) identifies several problems that should be solved or improved:

- a) Supply good housing facilities;
- b) Make all facilities and services available for incoming students;

Beelens et al (Beelens, 2007) states that “in order for international students to be able to use all services of an institution, they have to be accessible in a language that the students speak”. Therefore, employees engaged in the services for international students should have a good command of English, and it is not enough if only the International Relations Department or Student Service are competent to communicate in English. Although Sursock et al (Sursock, 2010) considers that student services have the most important role at the university and that “they need to ensure that students have access to all that they need”, one should be aware that university’s body is compiled of many units and each unit dealing with services for students should have a good command of English in order to adapt the international education space.

Have tutors for incoming students.

- c) Common social events for both international and local students;

As the main problem indicated by international exchange students is the lack of communication with local students, and therefore, international students are usually communicating with other international students. Beelens et al (Beelens, 2007:60) proposes that international students should feel that they are welcome to take part in social events made for all students of the respective university. Beelens et al (Beelens, 2007:60) adds that international students should be informed about the events organized for or by the local students. The main problem is that usually international students are not aware of the events organized by the respective faculty or university and thus ensuring the isolation from the local students. “Usually things work the other way round: home students are encouraged to participate in activities that are specially organized for international students” (Beelens, 2007:60) in order to meet local students.

- d) Guest lecturers;

Invitation of guest lecturers is considered as a significant tool with regard to the internationalization process and according to Beelens et al (Beelens, 2007), guest lecturers are ‘an effective way to internationalize the curriculum’. Teissier (Teissier, 2007) introduces that “most of the visitors are people with a lot of experience and with a cultural background that is different from ours’ and therefore visiting lecturers are important in order to share experience and knowledge. On the other hand, Beelens et al (Beelens, 2007:53) suggests that participation in the lesson lectured by the guest lecturer “creates a situation in which students are forced to speak another language and look at issues from another angle”, which are the most important aims of the guest lecture. The majority of the guest lecturers come from another country with a different culture, values and views to the nowadays society. These differences create the added value to the lecture and introduces international point of view to the chosen topic.

The main problem with guest lectures is that sometimes they are not taught as a part of a programme and students do not feel familiar with the topic, namely, they are not interested and are reluctant to attend. Beelens et al (Beelens, 2007:53) claims that if the guest lecture is not part of a regular course and is not closely related to the subject of the course, students are not



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motivated to attend extra lectures. Therefore, before inviting guest lecturers, the faculties should be informed about the topic of the guest lecturer and whether it corresponds to the current programme at the respective university. Beelens et al (Beelens, 2007:53) also stresses that “guest lecturers should always have the full support of the receiving department”. Good teaching and living conditions would promote further cooperation and establish closer mutual dealings within faculty members, for example, staff exchange. With regard to the teaching staff exchange, Beelens et al (Beelens, 2007:53) gives advice that the first visit at the partner university should not be made as a teaching visit because at first one should get familiar with the foreign colleagues, study programme and the teaching conditions in order to have a successful experience and efficient guest lecture.

Empirical Research Results

In the globalized world and greatly competitive environment the main aim of all the universities is to become internationally recognized as the top level research and study universities. The analysis of the University of Latvia Strategic Plan 2010-2020 (UL, Strategy), Internationalization Strategy 2009-2013 of the Aarhus University (Aarhus University) and the University of Tartu Strategic Plan 2009-2015 (TU Strategy) is conducted in order to compare the foresight of the development of all three universities. For example, the vision (UL, Strategy) of the University of Latvia is that in 2019 the university will be “a leading research university in the Baltic Sea region” and will rank ‘highly among European universities’. Aarhus University has put forward the following priority: “to be among the leaders in the development of higher education within Europe” (Aarhus University), whereas the aim (TU Strategy) of the University of Tartu is “to become an internationally attractive [...]” and “the best in Estonia”. Aarhus University has stated quite a challenging aim of becoming one of the leaders in Europe. While the University of Latvia and University of Tartu are enough self-critical and reasonable in facing the challenges related to the aim of becoming a respectful and attractive higher education institutions within the Baltic Sea region and even at the European level.

The comparison of all three university strategies points out the main development scenarios, common and different views, trends and challenges. Basically all three universities have common goals related to the internationalization processes – become an internationally recognized research university and enrich international collaboration. Increasing the number of courses and study programmes taught in English, recruitment of international students and international staff members are the common aims to all three universities. The analysis of each university’s individual plan is followed by a paragraph of interrelated aims between the universities:

1. Individual plan of Aarhus University

The difference is that Aarhus University is mainly oriented on research development by means of increasing international research funding and promoting outgoing mobility of researchers (Aarhus University). Aarhus University puts emphasis on cooperation agreements with elite universities and active participation in key university networks. With regard to the university branding, Aarhus University is looking forward organizing high-profile conferences with international participation thus ensuring the worldwide recognition.



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2. Individual plan of University of Latvia

In order to promote international recognition, the University of Latvia aims to increase cooperation agreements, increase the number of joint degree programmes and attract more exchange students. Additional attention is paid to staff development; namely, the University of Latvia is interested in promoting the capability of academic and administrative staff members according to the international standards. University of Latvia has put forward six characteristic values, which are identified as main driving forces (UL, Strategy): people, excellence, academic freedom, academic culture, responsibility for one's activity in front of the society and the state, and openness and respect for diversity.

3. Individual plan of University of Tartu

The strategic plan of University of Tartu (TU Strategy) is concerned with promotion of student mobility, but the main emphasis is put on attracting Estonian lecturers and researchers, who work and defend their doctoral thesis abroad and on creating network of internship facilities at local and international level. University of Tartu wants to strengthen its identity as Estonian national university and develop a learner-centred teaching environment.

4. Interrelated aims between Aarhus University, University of Latvia and University of Tartu

The University of Latvia and Aarhus University identify themselves as research universities; therefore, both universities concentrate on recruitment of high level international researchers and collaboration with international research centres and projects thus ensuring the increase of internationally recognized publications. Additionally, Aarhus University and the University of Latvia show interest in organizing international summer schools, seminars and specified international courses as part of the internationalization. University of Tartu and Aarhus University have common aims at developing a professional arrival and support system for incoming students from abroad. Currently lifelong learning and continuing education are topical issues in the higher education space and the University of Latvia and University of Tartu have defined these types of education as one of the main focus areas. All challenges are achievable the question raises in the methodology and the term in which the goals can be fulfilled. The set goals are used as tools of internationalization in order to become transnational high level universities.

Data of table 1 – university rankings provided by the *Ranking Web of Worldwide Universities* indicates that University of Latvia neighbour university [and a competitor] – University of Tartu is evaluated 671 positions higher than the University of Latvia, which is a significant disparity. However, the possibility to reach the level of the Aarhus University might be considered as a remarkable challenge for both the University of Latvia and University of Tartu.

The next row shows data of *QS World University Rankings* where the University of Latvia is not represented, while the University of Tartu is among the 551-600 best universities in the world. Aarhus University shows its best achievement in this ranking taking the 84th position. The last row represents data of *Academic Ranking of World Universities* where, unfortunately, the University of Latvia and University of Tartu are not present and Aarhus University ranks at the 98th place.



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Authors conclude that Aarhus University has the most successful results among all three Baltic Sea region universities and from three different ranking tables takes the position in TOP 100 in two of represented tables, whereas University of Tartu shows relevant superiority over the University of Latvia, namely, the positions and the presence in two of three university rankings. The most unpleasant situation is for the University of Latvia, which is present only in one of the three provided university rankings. This observation leads to the discussion of the active participation and application to university rankings, international recognition and attractiveness. Universities should consider higher education rankings as important indicators in the higher education space.

Table 1

University Rankings 2010

University	Ranking Web of World Universities ¹		QS World University Rankings ²	Academic Ranking of World Universities ³
	2011	2012		
 University of Latvia	1132	948	Not mentioned	Not mentioned
 University of Tartu	461	501	551-600	Not mentioned
 Aarhus University	157	223	84	98

Source: Author's prepared based on Internet sources

To conclude, the University of Latvia has a challenge to create a successful brand that represents its strengths, identity and added value that will highlight it among other higher education institutions. A successful branding might help to obtain international attractiveness and foster its position in the worldwide university rankings.

Currently the University of Latvia has 105 bilateral agreements with universities in 37 countries, more than 500 Erasmus agreements with 278 universities in 28 European countries and the number of agreements is increasing every year (Exchange). The available data shows that achievements in the number of cooperation agreements are highly progressive, however, one might start to consider about gradual refraining from signing too many cooperation agreements. For statistical numbers the data provided is relevant, however, has one conducted an analysis of the actual cooperation within all the signed agreements? The results might be surprising from both negative and positive point of view. The selection of the partner

¹ Source: Ranking Web of World Universities, January 2012 (Online <http://www.webometrics.info/>)

² Source: QS World University Rankings, 2010 (Online <http://www.topuniversities.com/university-rankings/world-university-rankings>)

³ Source: Academic Ranking of World Universities, 2010 (Online http://www.arwu.org/ARWU2010_5.jsp)



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universities should be based on the quality of knowledge and experience the respective higher education institution may offer to the partner university.

One may claim that cooperation has more advantages than disadvantages and collaboration is used as a tool for international visibility. Today the topical trend is the establishment of various worldwide university networks thus creating the sense of unity and closer relationships. “Creating small international and European networks is a strategy frequently chosen by institutions to boost their visibility and combine strengths” (Sursock, 2010). The University of Latvia is currently a member of thirteen (Exchange) international university networks and organizations and by its active participation represents the university as a reliable, competitive and internationally visible higher education institution. For example, the membership in the Baltic Sea Region University Network (BSRUN) facilitates cooperation within the member institutions in the respective network by means of student and academic staff exchange, information exchange and implementation of joint research projects. The common goals and challenges put forward by all cooperation parties are achieved with joint input and strength.

When many cultures merge together in shared environment, one should have excellent proposals how to deal with the delicate situation and create or improve the environment the most acceptable for every culture. International environment does not relate only to the study programmes and tolerance and understanding towards international students. The aim of setting up international environment is to create a familiar study environment for foreigners so that they do not feel excluded or separated from local students. The University of Latvia is always proud of the growing number of exchange students thus verifying the university’s attractiveness in the eyes of partner universities. Some empirical evaluations for incoming exchange students at University of Latvia:

1) Supply good housing facilities

The opinions about the quality of student dormitories might be discussable; however, one might believe that the university does the best it can do. After several complaints of international students at University of Latvia, the authors came to conclusion that additional attention should be paid to the knowledge of English of the dormitory’s personnel. It is not the case that living in the dormitories includes only paying bills and receiving the keys. Everyone may experience household related problems such as problems with sink, shower etc., and in order to identify and solve these problems a sufficient knowledge of a language common to both parties is needed. If compared with the University of Tartu, the receptionists of the student dormitory were able to speak at least three languages and students were sure that they can rely on the reception if any problems appeared and that students will be understood. If the University of Latvia associates itself with internationalization, then the student housing facilities should provide the best conditions for both local and international students.

2) Make all facilities and services available for incoming students

Employees engaged in the services for international students should have a good command of English, for example, with regard to the services for international students, a successful experience has been observed with the University of Latvia Sport Centre because the representatives of the centre are welcome to international students and have sufficient English language skills. For example, each year exchange students are competing with local football or floor-ball teams and have fully integrated into the University of Latvia sport life. Probably



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local students would not like to admit the fact that one needs good skills to defeat the football competitors from Spain, Portugal or Italy.

The most important issue is that all students should have the same access to LUIS system as local students (with appropriate data) with information provided in English, for example, students should be able to see the timetable as well as be able to find course descriptions and additionally, a short and specific user manual should be provided with a reader friendly instructions of how to manage the information system.

With regard to ensuring the international environment, firstly, additional attention should be paid to the necessity of bilingual signs. For example, when international student enters the faculty or main building of the University of Latvia, usually students already feel lost because of the lack of enough information in English. The suggestion is that university should implement bilingual signs, for example, in which direction is the library, cafeteria, secretary, Dean's office, international coordinator etc. In order not to spend extra 20 minutes for searching the right room, students would be grateful if provided with bilingual signs. Secondly, although the catering services at the University of Latvia faculties are not owned by the university, it might be very respectful attitude if the menu would be provided bilingual as well. On one hand it would be a kind gesture not only to international students but also to the international staff members or guests, so that they could not only see and guess the name of the dish but also be aware of its ingredients. This improvement might be very helpful also for those who are engaged in the modern societies' eating habits, for example, vegetarians, vegans etc., and as the university states that it is international and open to all cultures, bilingual menu would also prove this conviction.

3) Have tutors for incoming students

It is noted that it should be expressed gratitude to the Erasmus Student Network (ESN) Riga Team for the input and energy they devote to enrich international students' life in Latvia. ESN Riga is not welcome only to students within the Erasmus programme but to all international exchange students who have come to study in Latvia within different exchange agreements. Starting from the academic year 2010/2011 ESN Riga is helping to acclimatize also the full-time degree seeking students from abroad. One should not that ESN Riga is a not-for-profit international student organization which "provides opportunities for cultural understanding and self-development under the principle Students Helping Students" (ESN, 2011). Moreover, the attention should be drawn to the fact that the members of ESN Riga are volunteers and are not paid for their work. The members are mainly students who have experienced tutor services during their exchange period abroad or non-mobile students, who are led by own interest and enthusiasm. The organization offers various trips around Latvia and neighbour countries in order to introduce international students with the culture and identity of the Baltic States. Regular events related to intercultural familiarization and informal social events are organized in order to get acquainted with other cultures, make friendships etc.

The general aim of tutors is to keep in touch with the international student before he or she arrives and give advices to the relevant questions proposed by the newcomers, and to meet international students when they arrive, for example, at the airport or the bus station. In order to evaluate the work of the ESN organization, international students were asked to fill the survey and reply to the following question: Did you have a student buddy taking care of you at the beginning of your stay? The survey was conducted for international students at the University of



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Latvia and University of Tartu and both parties had to give answers (with regard to the visiting country) about the ESN Riga and ESN Tartu respectively. Table 2 shows that 153 international students of the University of Latvia have expressed their opinion from which 89.6 percent have given an affirmative answer, 5.2 percent of the respondents have given a negative answer and 4.5 percent of students indicated the option 'other'.

Table 2

Did you have a student tutor taking care of you at the beginning of your stay in Latvia?

Responses		Frequency	Proportion (percent)
Valid	Yes	138	89.6
	No	8	5.2
	Other	7	4.5
	Total	153	99.4
Missing	System	1	0.6
Total		154	100.0

Source: Author's calculations based on survey of foreign students in 2010, (n=154)

Under the option 'other' students have mentioned the following most frequent alternatives: the tutor was working and could not meet; they will meet within few days; my friend's tutor is taking care of me as well; and the tutor got ill. Data represented at Table 2. shows that negative answer has been given by 8 international students, and the reason might be that as student tutor services are not obligatory, the international student may choose whether he or she needs an assistance or not. However, statistics shows that ESN Riga is welcome and hard working for international exchange students, and is successfully helping them to integrate in the society.

The comparative analysis with the ESN Tartu is available on Table 3 which presents the outcome of the survey conducted for the international students of the University of Tartu.

Table 3

Did you have a student tutor taking care of you at the beginning of your stay in Estonia?

Responses		Frequency	Proportion (percent)
Valid	Yes	24	21.2
	No	7	21.2
	Other	2	6.1
	Total	33	100.0

Source: Author's calculations based on survey of foreign students in 2010, (n=33)

Table 3 shows that 33 respondents have participated in the survey from which 72.7 percent had given positive answer, 21.2 students have replied negatively and 6.1 percent have indicated 'other' as their answer. For example, one student has indicated the option 'other' with a comment that officially he or she had a student tutor, but the tutor did not do much to help.



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The analysis of both tables indicates that most favourable experience has been for international students of the University of Latvia led by ESN Riga members with more than 15 percent superiority. However, one should be aware that both ESN Riga and ESN Tartu are of great importance for their input in the everyday life of international students.

4) Common social events for both international and local students

As the main problem indicated by international exchange students is the lack of communication with local students, and therefore, international students are usually communicating with other international students. The university should avoid organizing events only for international students because students' aim coming to Latvia is not only to study at the university but also to meet local people and get to know their national identity, values, opinions and culture. It cannot be sufficiently done in a shop or classroom; therefore, social events with local students should be organized. The suggestion would be that social events should be organized with a target group of both local and international students so that they could merge and get acquainted with each other. Moreover, both student groups should be treated equally well so that local students would not feel that representatives of the university express more attention or give greater benefits to the international students. Even if the representatives are willing to show special care or attention to the international students, it should be done professionally enough so that the local students would not notice it. The advantages would be for both parties: local students would improve their language skills and share the experiences or give some advices regarded to life and studies in Latvia, and international students would improve their Latvian language skills and share their overseas experience. Both parties might find a common range of interests and extend their communication or cooperation in future.

It could be suggested that the organization of above mentioned events should be organized by the Student Council of the University of Latvia as it is the representative body of all students enrolled at the respective university. Previous years experience has showed that Student Council takes rather passive role with regard to international exchange students and is mainly occupied with activities related to local students. As example, if we look at the website of the Student Council of the University of Latvia and notice that information in the webpage is available only in Latvian language. For good fortune, the rotation of the representatives at the Student Council takes place comparatively often and current representative of International Affairs has created the Student Councils' account on the nowadays most popular social network *Facebook*, where information about different activities is displayed in English. Moreover, this year Student Council is also organizing Europe wide trips offered also for international exchange students. Anyway, additional attention should be paid to social activities where local students meet international students. There are several good examples when incoming exchange students make friendships with local students and the experience has shown that such long time professional co-operation develops not only the professional growth, but also international co-operation between the countries.

5) Guest lecturers

Invitation of guest lecturers is considered as a significant tool with regard to the internationalization process. The majority of the guest lecturers come from another country with a different culture, values and views to the nowadays society. These differences create the added value to the lecture and introduces international point of view to the chosen topic.



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The main problem with guest lectures is that sometimes they are not taught as a part of a programme and students do not feel familiar with the topic, namely, they are not interested and are reluctant to attend. The statistics show that starting from year 2006 an active participation in teaching staff exchange has been observed. Figure 1 shows the annual changes in the incoming and outgoing teaching staff mobility at the University of Latvia.

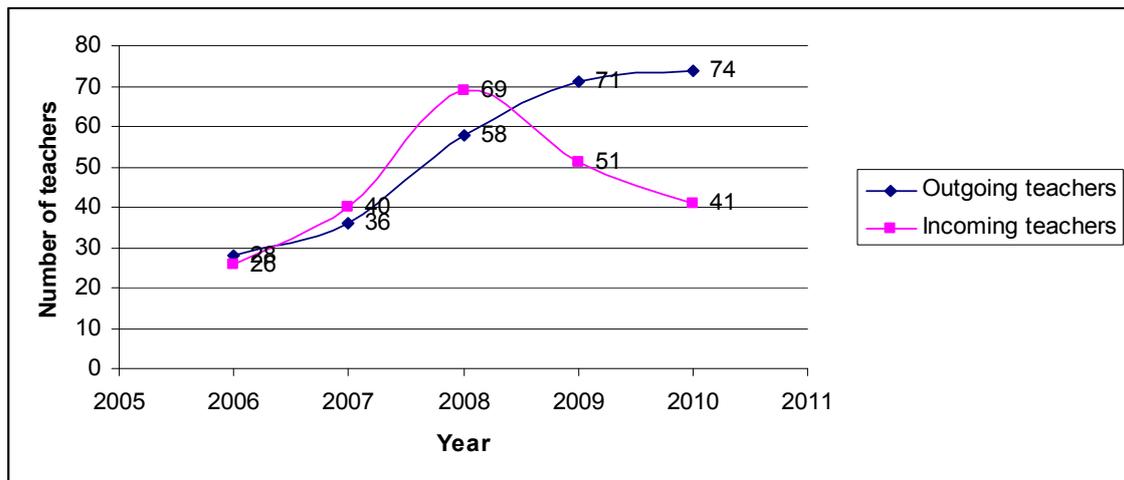


Figure 1. University of Latvia teaching staff mobility 2006-2010

Source: University of Latvia Foreign Relations Department

Figure 1 shows that remarkable differences between the incoming and outgoing staff exchange have appeared in 2009 and 2010. If from time period 2006-2007 the numbers were rather similar then after 2009 the situation has changed vice versa and the outgoing mobility prevail the incoming teaching staff mobility. It could be considered that funding for staff exchange plays a significant role, but it should also be noted that lecturers' motivation to academic growth is a relevant reason as well. From the internationalization point of view, the number of incoming guest lecturers should be improved in order to balance the mobility and give international experience to students and faculty members. On the other hand, the increasing interest of teaching staff members of the University of Latvia to go abroad and conduct guest lectures is a significant achievement in the way to internationalization. A visit abroad encourages teaching staff members to self-development and to master overseas experiences. Starting from 2006 (Exchange, 2012), a remarkable increase in student numbers spending a semester or full year abroad in Europe, USA or Asia has been observed (Figure2). The University of Latvia becomes even more attractive as a place for studies and research – the number of incoming exchange students, who choose University of Latvia as their host university is increasing every year. The most active exchange takes place in the Erasmus programme – the UL has signed more than 525 cooperation agreements with over 278 universities in 28 European countries (Exchange, 2012). The number of available courses held in English increases every year. Successful experience of academic staff exchange ensures



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international scope, ideas and innovations in the study environment. University of Latvia management appreciates that the faculties are active in involving visiting professors in the study process.

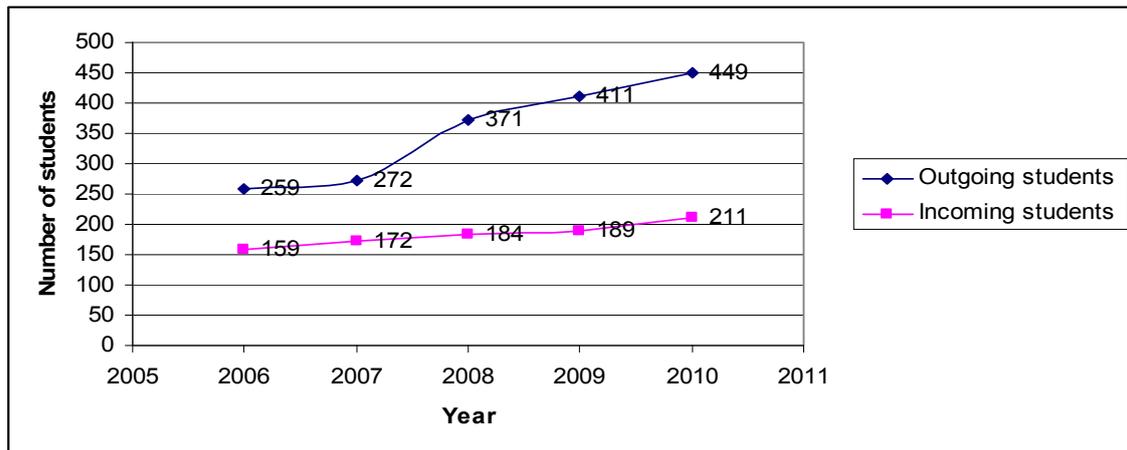


Figure 2. University of Latvia student mobility 2006-2010

Source: University of Latvia Foreign Relations Department

Figure 2 shows that every year increase of outgoing and incoming students takes place at University of Latvia in years 2006 – 2007, outgoing students in last years are around twice as much as incoming students.

Conclusions

Globalization has remarkably affected the role of higher education institutions. Apart from the knowledge transfer, current world requires more internationally oriented knowledge with an emphasis on transnational social and cultural awareness and competences. Internationalization of the higher education institutions is considered as the most effective tool in order to achieve the above mentioned challenges. Moreover, the involvement of all university body ensures successful implementation by means of common strengths, experience and motivation. A professionally composed and up-to-date international strategy is the first step towards the transnational education space and successful improvements. However, a special attention should be drawn to the international university rankings as they play a significant role in the worldwide education community thus influencing the reputation, recognition and attractiveness of a university. International cooperation and partnership building are one of the main tools of internationalization, and are regarded as the facilitators of an international scope, experience and togetherness among higher education institutions all over the world. The survey conducted for international students at the University of Latvia and University of Tartu indicates that both universities have been chosen for study abroad period by international students mainly because of their own wish and considerations. With regard to international recognition and



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attractiveness of both universities, the survey results show that both universities have sufficient reputation as recommendations of previous students and home university's impact on decision making are evaluated as comparatively significant reasons in students' choice. Numbers of academic staff members and students outgoing for international exchange from University of Latvia increases every year. Incoming members of teaching staff to University of Latvia decrease since 2006. There are many challenges for teaching staff and students to participate in student/academic staff mobility for further development of their own and making more attractive study environment at home university.

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LEVERAGE DYNAMICS AND THE MACROECONOMIC CONDITIONS

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Abstract

The enterprise financial leverage and capital structure are determined by various factors. The paper analyses the dependence of enterprise financial leverage on the macroeconomic conditions in the country. It proves the need for active leverage and capital structure management under different macroeconomic conditions, taking into account interest of shareholders and debtholders. The paper summarizes the theoretical research made on the dependence of financial leverage on macroeconomic conditions. The author gives an assessment of recent trends in changes of leverage of non-financial corporations under particular macroeconomic conditions in different EU countries. The results suggest that the macroeconomic conditions influence financial leverage and capital structure decisions as well as the ways the capital is raised. Based on the analysis made, author proves the need for active leverage and capital structure management under changing macroeconomic conditions.

Introduction

Important characteristic of modern development of economy is its' cyclical nature. Essential precondition for economic growth of the country is investment in innovative technology and science. Thus, in order to ensure economic growth, adequate financial capital is needed, especially for innovative, export-oriented enterprises. Ability to have a possibility to raise capital any time it is needed is crucial for current and future development of enterprises.

Globalization has created an environment that is favourable to rather quick transmission of economic developments of one country (especially, the United States of America, EU) to the rest of the world. Long period of economic boom was followed by the collapse of the sub-prime mortgage market in the US and one of the most severe economic downturn in the modern economic history of many countries. It became a serious examiner for most European countries and the USA (see Figure 1).



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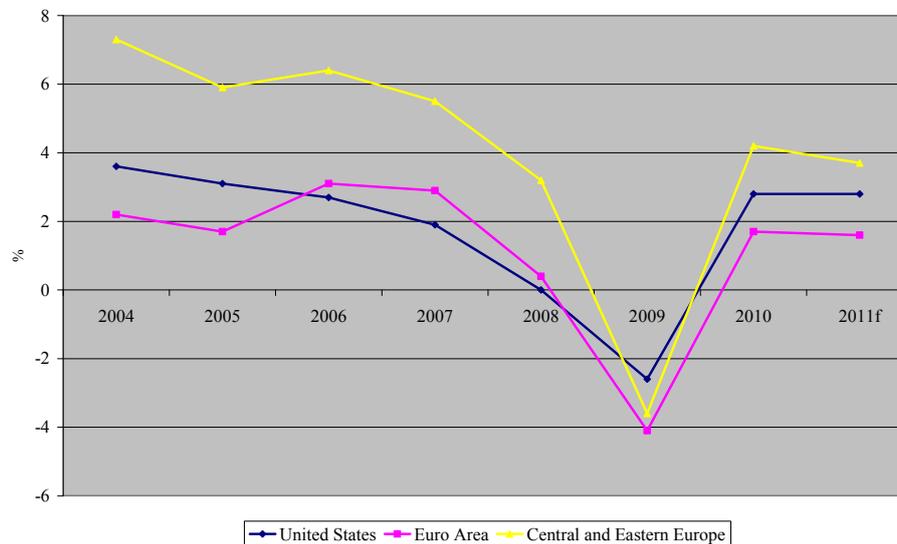


Figure 1. Real GDP growth of selected world regions, % [11]

The Baltic States were not an exception. The real GDP has dropped by 13.9% in Estonia, 18% in Latvia and 14.7% in Estonia [12]. Changes in economic environment and the financial crisis had a strong impact on financing conditions for both companies and households. The latest crisis has also revealed a number of imbalances in the development of enterprises and pushed to change the capital raising practices.

Under conditions of economic growth and favourable lending conditions enterprises could easily raise debt capital on reasonable conditions. The following economic downturn has increased the need for additional debt financing. On the other hand, economic downturn has also limited the supply side – banks have changed their lending policies to be more conservative thus limiting the possibility of enterprises to get a loan to finance current assets or long-term projects.

The aim of the paper is to analyze the dependence of enterprise financial leverage on the macroeconomic conditions in the country. It would help to extract lessons for theory and practice and provide possible solutions for leverage management. The analysis is based on the examination of aggregate statistical data on financial balance sheets of European countries (available on Eurostat) as well as using the survey and face-to-face communication with staff of financial institutions. The research methods used in the paper include the generally accepted economic research methods; the research covers the time period from 2005 to 2010. The informative and methodological basis of the paper is special economic literature, scientific and research papers, collections of statistical information, and results of the research made by the author.

Choice of Financing and Financial Leverage

Adequate capital and its raising possibilities are vital for the development of enterprises, especially in the high-growth sector. Technology-oriented and innovative companies have to



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invest continuously to keep on the track. The choice of financing sources depends on particular needs of the enterprise and particular conditions. Moreover, each of financing sources has its own positive and negative aspects which determine the choice of the particular source of financing.

According to the financial management theory, raising debt capital allows for the use of financial leverage. On the one hand, use of financial leverage can increase the return of the shareholders on the invested capital. This is the case, if the profit earned on the borrowed capital exceeds the interest paid on it. Moreover, debt is tax-deductible thus making debt capital cheaper for enterprise comparing to the equity capital, thus allowing to decrease the weighted average cost of capital. On the other hand, use of debt increases financial risk of the enterprise that causes shareholders to demand a higher return on their investment, thus increasing the cost of capital. Highly leveraged enterprises run the risk to be unable to generate the operating income that is sufficient to cover the debt costs.

Under conditions of economic downturn, the risk to have insufficient operating income to cover interest payments increases substantially. Moreover, if return on assets (or total capital) is lower than the pre-tax cost of debt (interest rate on the borrowed money), the financial leverage will have a negative effect on the return of the shareholders. Financial leverage becomes especially burdensome under conditions of raising interest rates.

Another important aspect of financing choice is its availability. Under favourable economic conditions enterprises can use different sources of financing, both internal and external. Under the conditions of economic downturn, the possibility of enterprises to use own internal sources of financing decreases sharply, thus increasing the importance of external sources of financing. In addition, worsening economic conditions deteriorate normal operational and financial management of enterprises. For instance, important is the issue of worsening customer/client payment discipline and increase of “bad” debt of debtors that asks for additional financing of enterprise current assets. On the other hand, to increase its market share or at least to maintain the current position in the market, enterprises need to continue investment in the mid-term and long-term projects to ensure current and future competitiveness of the enterprise. And, also in this case, external financing will be necessary to ensure enterprise development.

Thus, under conditions of economic downturn, external financing becomes decisive for the survival and development of enterprises. The choice of the particular equity or debt financing is crucial and strategic one as the choice of financing sources has direct impact on the level of financial risk of the enterprise, assessment of its creditworthiness, the cost of capital, as well as, it may give positive or negative signal to the market and business partners, thus influencing the possibilities of future development.

Thus, changing macroeconomic conditions and uncertainty escalate the necessity to raise capital, both equity and debt capital. Due to the fact that debt capital is usually cheaper than equity capital and doesn't mean the interference or debtholders in the operations of enterprises, enterprises often prefer to raise debt capital, e.g. taking a bank loan, thus increasing financial leverage. But the question if there is a dependence of enterprise financial leverage on the macroeconomic conditions in the country is open.



Theoretical Study of Leverage Dependence

The theoretical substantiation of adequate financial leverage and capital structure issues is relatively new. In 1958 Modigliani and Miller have published their paper “The cost of capital, corporate finance and the theory of investment” according to that, under certain conditions (efficient market, no taxes, no bankruptcy costs etc.) the enterprise market value does not depend on its capital structure [6]. The further research resulted in numerous studies analyzing different aspects of financial leverage issues, examining dependence of financial leverage on different factors/conditions.

Later research showed, that under conditions of information asymmetry, highly leveraged enterprises are charged higher risk premium to compensate the risk of debtholders (e.g., higher interest rate for a bank loan). In this case enterprises, especially the growing ones, rely less on debt capital that leads to a negative relationship between growth and debt level (Jensen and Meckling, 1976). According to the static trade-off theory, an enterprise chooses the leverage level, balancing costs and advantages of debt [7], i.e., balancing interest tax shield against the costs (Myers, 1984).

According to the pecking order theory, there are information asymmetries between managers of enterprises and the investors. Due to the information asymmetries enterprises prefer to raise debt capital only in case the internal capital is insufficient (Myers and Majluf, 1984). On the other hand, sufficiency of enterprise internal sources depends on the profitability of the enterprise, thus showing negative relationship between leverage and profitability. Moreover, Myers and Majluf assumed the existence of a hierarchy of enterprise financing sources: internal sources (e.g., retained earnings), raising debt capital and then external raise of equity [8]. This means that under conditions of economic downturn and thus decreased profitability, enterprises would prefer to raise debt capital, rather than equity capital, increasing financial leverage.

Theoretical papers have also investigated dependence of financial leverage on risk or volatility in income of enterprises (e.g., Wald, 1999 etc.). According to it, due to increased probability of default, enterprises with a higher volatility of earnings should rely less on debt. However, according to Wald, the relationship between financial leverage and risk or volatility in income of enterprises is country-dependent [9]. Further empirical research also didn't show this relationship clearly (Cassar and Holmes, 2003). Taking into account, that higher volatility of enterprise income might be a result of economic turbulences, it can be concluded, that the dependence of leverage and economic conditions is not unequivocal.

Many research papers examine dependence of financial leverage level on the type and structure of assets. Moreover, financial leverage depends on the products the enterprise produces [2]. Enterprises that produce non-unique products are likely to have higher financial leverage due to the better access to external debt financing and lower costs of the financing (Cassar and Holmes, 2003). Theoretically, due to higher liquidation value of tangible assets, enterprises with more tangible assets rely more on debt capital (Harris and Raviv, 1991). However, in author's opinion, this is also not unequivocal and might depend on the country and current macroeconomic conditions. In case of Latvia, during the economic and lending boom period (until 2008) the most popular collateral was the real estate. The loans were granted up to 100% of the market value of the real estate (commercial and non-commercial real estate). Economic downturn and consequent changes in the real estate market (lower prices, lower liquidity etc.) have pushed the banks to change their lending policies and change their attitude to collateral.



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There are theoretical papers on the dependence of leverage on age of enterprises, state tax policy, non-tax shields (e.g., depreciation policy), size of the enterprise etc. There are also many papers studying leverage and capital structure issues in different countries, e.g. Poland (Mazur, 2007), Greece, France, Italy and Portugal (Psillaki and Daskalakis, 2009), Ireland (Mac an Bhaird and Lucey, 2010) etc. showing common trends and national peculiarities. According to Graham and Campbell, the most important debt policy factors are informal criteria such as credit ratings and financial flexibility, to avoid the necessity to shrink enterprise business in case of an economic downturn [3].

The direct relationship of macroeconomic condition and leverage (or capital structure) was examined in several papers, and the results are contradictory. The research papers can be classified in two groups. Some papers concentrate on the issue of fund availability or changes of investor behaviour (the supply side) under different macroeconomic conditions, usually in relation to information asymmetries. E.g., Holmstrom and Tirole have shown that all forms of capital tightening (loans, collateral) “hit poorly capitalized firms the hardest” [5]. The other papers analyze the needs of enterprises for different financing sources (the demand side) under changing economic conditions (e.g., Vayanos, 2004 etc.). According to so called “flight to quality” models, during economic recessions investors become more risk averse. Besides, poor economic conditions lead to the shift of capital supply toward higher quality [1]. On the other hand, Halling, Yu, and Zechner have proved that during recessions leverage management becomes more passive [4].

Thus macroeconomic conditions can influence enterprise financial leverage in different ways, both through the supply side and the demand side. The influence can be also indirect, e.g. through changes in information asymmetry, volatility of profitability, type and structure of assets, state tax policy, accounting rules etc.

Empirical Study of Leverage Dependence on Macroeconomic Conditions

Due to unavailability of detailed enterprise balance sheet data to the author, the paper is based on the publicly available information provided by Eurostat. The empirical study is based on partially available aggregate balance sheet data of European countries (for non-financial corporation) and GDP at market prices data that is taken as a measure of changes in economic conditions.

Analysis of changes in leverage of non-financial corporations and GDP (at market prices) growth in the EU-27 (2005–2010) has shown that in general there is no direct dependence of leverage on GDP growth in the European Union (see Figure 2).

The analysis of leverage dependence on GDP growth in different European countries proved that this relation is country-dependant. In order to check dependence of leverage on macroeconomic conditions in different countries, the correlation analysis was made based on Eurostat data. The highest negative correlation coefficient was stated in Poland ($r = -0.9698$), Belgium ($r = -0.8981$), Netherlands ($r = -0.8800$) and Hungary ($r = -0.8441$); the highest positive correlation between leverage and GDP is in Greece ($r = 0.8111$). The weakest linear relationship between leverage and GDP was stated in Ireland, Romania and Latvia.



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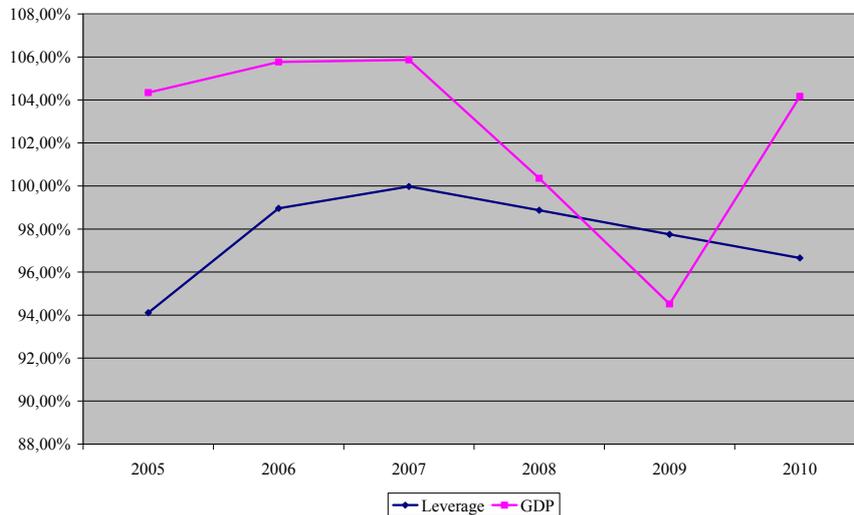


Figure 2. Changes in financial leverage* of non-financial corporations and GDP (at market prices) growth in the EU-27, 2005–2010 [12]

* financial leverage is calculated, based on Eurostat data on liabilities and shares and other equity of non-financial corporations

Analyzing changes in loan volume issued to enterprises in EU in comparison to nominal GDP growth, it can be concluded that in this case the dependence is clearer (see Figure 3).

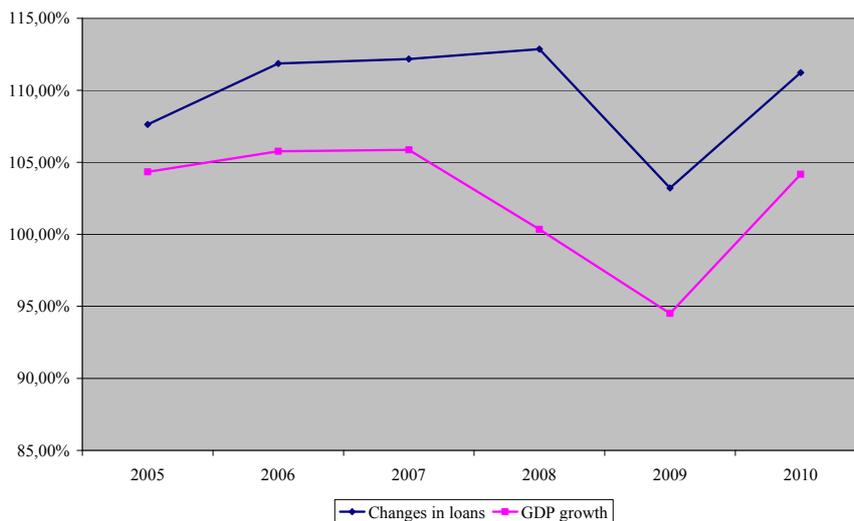


Figure 3. Growth rate of loans to non-financial corporations and GDP (at market prices) in the EU-27, 2005–2010 [12]



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Strong positive correlation was found in 18 European countries. The aggregate EU-27 GDP growth rate correlation with changes in loans issued to non-financial corporation in EU is also high ($r=0.7902$). The results of analysis suggest the highest correlation in Latvia ($r=0.9940$), Austria ($r=0.9804$), Malta ($r=0.9795$), France ($r=0.9761$) and Spain ($r=0.9749$). Case of Latvia is especially interesting due to weak positive relation of leverage to GDP, and very strong positive linear relationship between loans (issued to non-financial corporations) and GDP at market prices.

Thus, the financial leverage level is country-dependant, though common trends in EU countries can be observed. On the other hand, the analysis of changes in leverage of non-financial corporations and GDP growth in the European Union countries hasn't shown a clear dependence of leverage on macroeconomic conditions. Besides, high dependence on loans can be observed in Italy, Germany and Latvia, proving that in these countries the financial systems are bank-oriented.

Favourable economic conditions and beneficial lending conditions had a strong impact on financing practices in many countries. Bank loan was the key source of capital raising. According to the survey, made by the Gallup, loans are the most preferred type of external financing to realize growth – 64% of managers would prefer to apply for a loan to realize future growth of their enterprise [10]. This corresponds to the Figure 4: success rate in obtaining bank loan finance in almost all EU countries is high. However, a substantial decrease of the success rate can be seen in 2010 in comparison to 2007, which can be explained with changed macroeconomic conditions. The most significant decrease was noticed in Bulgaria, Ireland, Denmark, Lithuania, Spain and Greece (see Figure 4).

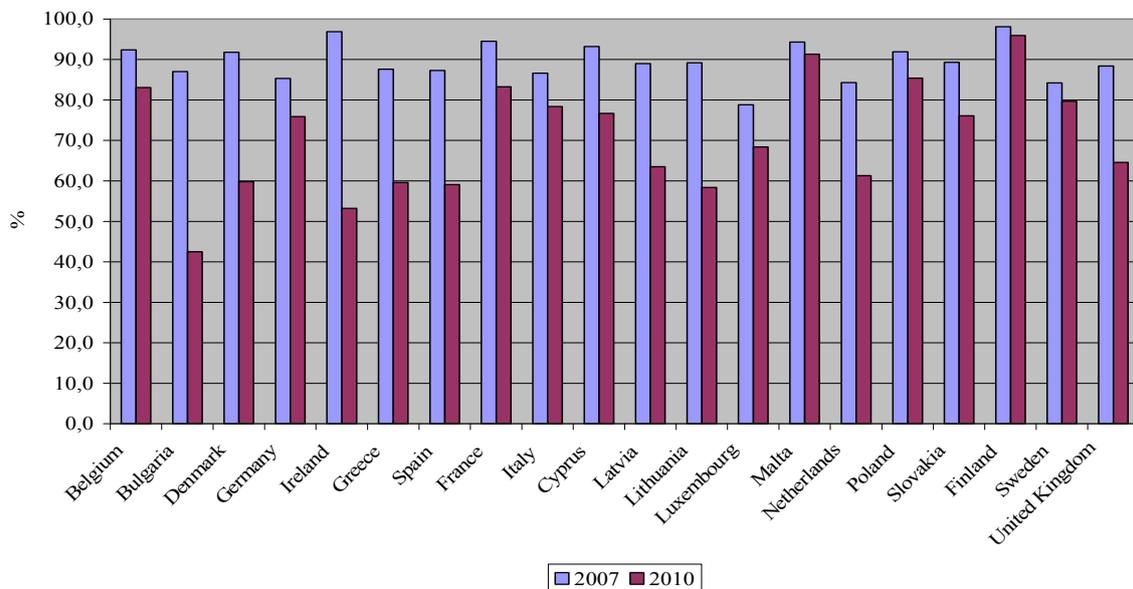


Figure 4. Success rate in obtaining bank loan finance in EU countries, 2007&2010 [12]



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According to Eurostat data, the main reasons for choosing a bank for loan finance in EU are already existing client-bank relationship; best offered loan conditions and existence of a local bank branch (see Figure 5).

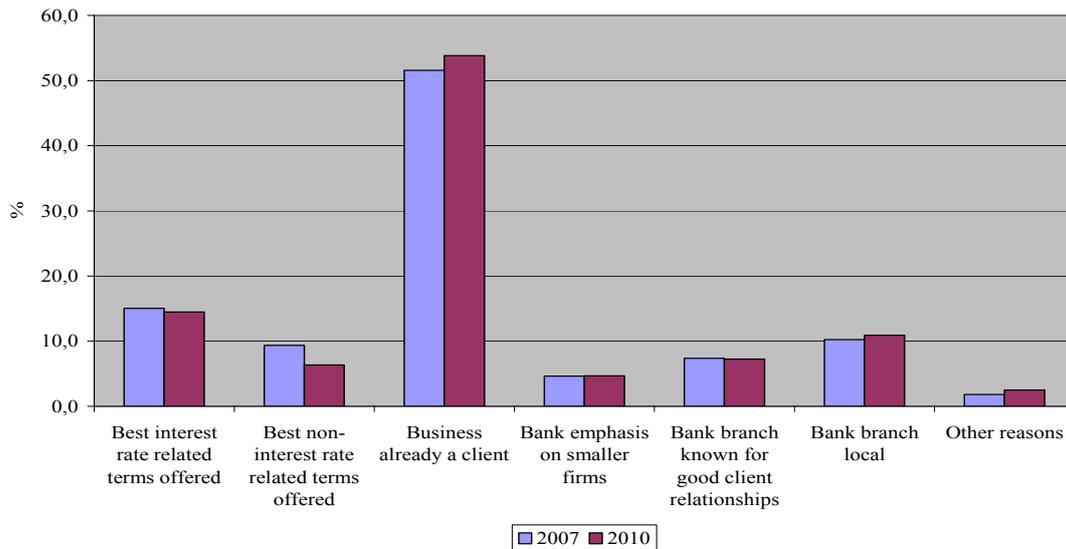


Figure 5. Reasons for choosing a bank for loan finance in EU countries, 2007&2010 [12]

As long as enterprises can use the advantages of financial leverage, strategy of debt raising in a form of loans can be justified. But high leverage of enterprises suggests also high dependence on creditors (banks), making enterprises more vulnerable and leaving less financial flexibility. This issue is getting crucial during periods of economic downturn when enterprises are more dependant or external financing as well as are more vulnerable due to unstable income and lower profitability. This proves the need for active leverage and capital structure management under different macroeconomic conditions, taking into account interest of shareholders and debtholders. As soon as the decision on financial leverage level is a strategic one, it is necessary to pay increased attention to financial management of enterprises not only during the downturn, but also during the growth period to ensure taking countercyclical financing decisions allowing better development of the enterprise. In case of limited resources it is recommendable to use outsourcing of financial experts and get professional help in strategic financing decisions. On the other hand, it would create market for small enterprises providing consulting in financial management. This solution would improve potential of enterprises helping to establish financial flexibility that doesn't depend on macroeconomic conditions in the country.

Conclusions

Macroeconomic conditions are important determinant of capital raising and leverage level changing decisions. Economic conditions influence both the availability of financing as well as the ability of enterprises to raise capital. The dependence of leverage on the macroeconomic



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conditions is not unequivocal and is country-dependent. Financial management decisions on the use leverage depend on several important issues, the most important is to the necessity to maintain the financial flexibility and credit risk assessment (rating) of the enterprise. Enterprises with a better creditworthiness and lower risk can take countercyclical financing decisions to ensure better development of the enterprise and stimulate economic growth of the country. Thus, active management of financial leverage is crucial for enterprises.

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LATVIA'S BANKING SECTOR IN THE CHANGING ENVIRONMENT

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Abstract

There is little disagreement these days that globalisation is changing the world, rapidly, radically, and in ways that may be profoundly disequilibrating. But beyond this already trite cliché, almost everything else concerning the phenomenon is subject to intense debate – in the context of an explosion of interest in and research on the subject.

The **object** of this paper is Latvia's banking sector.

The **purpose** of this research is to analyse how to maintain the benefits brought by globalisation at the same time as we are avoiding from the crisis as a last one.

To achieve the purpose the following **tasks** were conducted:

1. Identifying the main benefits and challenges of banking sector development in the changing environment;
2. Analysing Latvia's banking sector as a part of global financial system;
3. Analysing the main preconditions of sector financial stability;
4. On the basis of the author's findings to put forward offers, how Latvia's banking sector can to benefit in the changing environment.

Chapter 1 explores the key benefits of banking sector globalisation. Chapter 2 analyses the main challenges of banking sector development in the changing environment. Finally, in Chapter 3 the author looks for solutions how Latvia's banking sector can to benefit from changes brought by globalisation at the same time avoiding from the crises as the last one, by analysing capital and regulation as a most important components of financial stability.

The results underline the need to recognise that markets need rules, constraints and careful monitoring so that banking failures are less frequent and less costly. And that the rules, constraints and monitoring exercises need a macroprudential approach.

During development of the paper the generally accepted qualitative and quantitative **methods of economic research** were used.



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1. Main Aspects of Banking Sector Globalisation

For the first time since the October 2008 Global Financial Stability Report, risks to global financial stability have increased, signalling a partial reversal in progress made over the past three years. The pace of the economic recovery has slowed, stalling progress in balance sheet repair in many advanced economies. Sovereign stress in the euro area has spilled over to banking systems, pushing up credit and market risks. Low interest rates could lead to excesses as the “search for yield” exacerbates the turn in the credit cycle, especially in emerging markets. Recent market turmoil suggests that investors are losing patience with the lack of momentum on financial repair and reform. Policymakers need to accelerate actions to address longstanding financial weaknesses to ensure stability. [11]

The banking sector has a great importance in our modern service-oriented economies, as the present euro zone debt crisis and the last global financial market crisis and the subsequent severe economic recession have pointed out. According to present dominant approaches to economics, the financial structure of the economy may influence aggregate economic activity and amplify business cycles. However, modern economies are viewed as essentially stable and tending towards steady growth; and the investment-finance linkage is considered as an amplifying mechanism of shocks exogenous to the economy. A complementary strand of research emphasizes the role of the investment-finance link not just as a propagator of exogenous shocks but as the main source of financial instability and business cycles, i.e., during good times economic agents take excessive risks and lend and borrow too much, generating endogenous ruinous boom-and-bust cycles. Besides, recent developments in statistical equilibrium approaches to economics, alongside with the emergence of behavioural and agent-based models, have indicated the way to overcome the limitation of traditional equilibrium-based analytical models characterized by fully rational representative agents.

The key characteristics of banking sector and financial market globalisation may be summarised as follows:

- Borrowers, lenders and investors increasingly have global options with respect to the source of funding and the allocation of funds and savings.
- As a result, the geographical domain of financial intermediation has widened and has become increasingly global. In its extreme form (not yet achieved), the global financial system can be viewed as a set of financial markets, exchanges and institutions which trade in financial instruments and channel world savings (wherever they are located) to investment wherever the risk-adjusted rate of return is considered to be greatest. In this way, financial institutions and markets intermediate in business between agents irrespective of their location or that of the institution or market. While the bulk of financial intermediation is still conducted within the domain of national financial systems, this proportion is decreasing and, at the margin and especially for the corporate sector, global options have become increasingly available. In principle, this should raise efficiency in the allocation of financial resources in the global economy to the extent that savers, borrowers and institutions have wider options and are not restricted to domestic options.
- Financial firms also locate outside their own country and conduct intermediation business for foreign local, domestic and international customers.



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- Financial innovation (the creation of new financial instruments, markets and facilities) spreads quickly on a global basis.
- Shareholdings of both financial and industrial or commercial companies are becoming increasingly international in that, over time, the proportion of shares of major banks and financial enterprises that is owned outside the country has been rising steadily.
- Various forms of arbitrage between financial markets and institutions take place on a global basis.
- Financial markets and institutions are not only in competition with each other, but face increasing competition from outside their domestic countries. This is especially the case in the market for corporate and wholesale business but, to some limited extent, also in retail business.
- Shocks are transmitted internationally.
- Market discipline has been enhanced, and the market in corporate control (the mergers and acquisitions market) has increasingly become international in the financial sector and again relates both to financial institutions and to markets: witness cross-border mergers and acquisitions in the banking sector and also in securities markets. [16]

Globalisation has wider dimensions than those described above. However, the characteristics of globalisation that have been highlighted are those are particularly relevant to the discussion that follows.

2. Globalisation Effect on Banking Sector Development

In this chapter the author summarizes the main benefits brought by globalisation and at the same time analyses the main challenges that banking sector faces under the globalisation process.

Globalisation has created clear efficiency benefits by intensifying competition within the key commercial banking market and increasing financial market completeness. Entry by foreign financial institutions using advanced credit risk assessment and portfolio management tools intensifies price competition and improves credit allocation by better matching price and nonprice terms to the level of credit risk, thereby reducing the role of directed credit. FSDI (Foreign direct Investment in the financial sector) has increased the completeness of markets as foreign-owned financial institutions have introduced new financial products to emerging financial markets. The development of securities and derivatives markets provides alternatives to bank loans for channelling credit and liquidity in the local economy. Expanded consumer lending markets improve the economic welfare of households.

So far everything looks rather positive, but globalisation also implied changes, increased cross-border competition and pressure to adjust have provoked resistance and calls for protection, and not only in emerging markets. Throughout the world economy we can observe an increasing aversion to risk and to change.

As current financial crisis is obviously global, would it help to keep own countries in order to minimise impact of financial crisis?

Unfortunately the answer is negative, as we need international coordination. The perimeter of international coordination has widened. Just as risk management at individual firms



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does not add up to the stability of the financial markets, so, too, macroeconomic and financial stability at the national level does not necessarily add up to global financial stability.

Home and host country supervisors need to coordinate their supervision of large, multinational institutions. Where foreign-owned institutions make up a large proportion of the financial sector of an emerging market country, the health and wellbeing of the country's financial system may depend greatly on the financial strength and managerial effectiveness of the parent organisation, as well as the local subsidiary or branch.

The author positively values EU countries attempts to enhance cooperation within the 27 EU Member States by signed the Memoranda of Understanding (MoU) in 2008. The fact that representatives from supervisory authorities, central banks and finance ministries across the entire EU have agreed on a common set of principles for crisis management and resolution is an important starting point for more intense cooperation. Furthermore, in September 2010, the Council of Europe approved a legislative package thus creating the legal basis for a new EU financial supervisory framework. This was a follow-up of the recommendations voiced by the EC in September 2009 regarding a radical reform of the so-far mainly national-regulatory-regime-based EU supervisory system. This decision has emerged as a result of serious political discussions lasting for more than 6 months among the European Council, the EC and the EP. [12]

The reform introduces essential changes in the EU framework for supervising banks and securities and insurance market participants. As an outcome of these changes, a new European System of Financial Supervision (ESFS) has emerged to operate as of January 2011. The new two-pillar (macro-prudential and micro-prudential) system will help strengthen the supervision of financial system both as a whole, i.e. at the macro-prudential level, and at the level of individual entities, i.e. at the micro-prudential level. [5]

The ESFS comprises the European Systemic Risk Board (ESRB) responsible for macro-prudential oversight and a network of micro-supervisory institutions. This network is represented by three European supervisory authorities: the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA) as well as the Joint Committee of the European Supervisory Authorities and supervisory authorities of the EU Member States. [1]

ESFS Macro-Prudential Supervisory Pillar

The former system of EU financial supervision did not have any mechanism at the macro-prudential level to ensure efficient identification of systemic risks and to support their adequate mitigation.

The most important strategic goal of the ESRB is to mitigate and prevent systemic risks threatening the stability of the EU financial system as a whole. Thus, in contrast to the former European financial supervisory framework, a stronger focus is on the systemic risks jeopardising the whole financial system of the EU vis-à-vis individual risks to certain financial systems of EU Member States. However, the ESRB can issue recommendations and warnings to particular countries if systemic risks jeopardising the stability of the whole EU financial system arise from the developments in them. [14]

The ESRB operation will rely on the synthesis of analytical work carried out by central banks and microsupervisory authorities. Representatives of the Bank of Latvia and FCMC will take an active part in the work of the ESRB and its committees and working groups.



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One of the most important ESRB's tasks when elaborating the warning and recommendation issuance procedure is to develop a common set of indicators enabling faster and enhanced public awareness of financial stability risks. This system would enable the assessment of cross-border financial institutions' risk levels according to uniform standards.

The General Board of the ESRB is the main decision-making body of the ESRB. It represents a wide range of experience, expertise and stances. The leading role in the General Board belongs to the ECB and central banks of EU countries duly accounting for their functions in the financial stability domain.

ESFS Micro-Prudential Supervisory Pillar

As a result of the reform, the former banking, pension fund, securities and insurance market supervisory committees, i.e. the Committee of European Banking Supervisors (CEBS), the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS), and the Committee of European Securities Regulators (CESR) before exercising only advisory functions have gained in importance. The new supervisory authorities took over all functions of the given committees, with their tasks and authority expanding substantially. [1]

Representatives of the FCMC will actively participate in the work of the European supervisory institutions. One of the most essential conceptual features of the EU financial supervisory reform consists in its orientation towards developing common regulative and supervisory standards and practices within the single EU market.

The main task of the European supervisory authorities in this context is to develop fully harmonised supervisory regulations.

The European supervisory authorities have the discretion to settle disputes arising among national financial supervisors, and temporarily ban excessively risky financial products or operations. These authorities will assume the leading role also in protecting the consumers' rights, enhancing transparency, simplicity and fair attitudes in the market of financial products and services for consumers across the whole internal market of the EU.

The new Basel III standards have been developed to address the weaknesses of the regulatory framework, particularly revealed by the recent global financial crisis, as the quality of bank capital as well as the levels of capital and liquidity were insufficient to cope with the serious systemic shocks. The gradual phasing-in of the main Basel III requirements is projected to take six years, the period starting with 2013.

One of the most fundamental improvements introduced by the Basel Committee in its reform package is the macroprudential focus to address both system-wide risks and the procyclical amplification of risks over time. [2]

As the global financial system is far more interconnected than was previously recognized and excessive risk taking that threatened the collapse of the world financial system was far more pervasive than almost anyone realized [13], global banks and global markets require global cooperation in regulation, supervision and macroeconomic policy.

3. Latvia's Banking Sector as a Part of European Market

The Latvian banks play an important role in attracting foreign investment. It is extremely important for Latvia to retain access to international capital markets to offset the external



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imbalance caused by the last global financial crisis, and to make efficient use of technological and organisational possibilities related to foreign investment. A successful banking sector is therefore an essential precondition for restriction of instability risks, and its prime responsibility is to set up a favourable investment climate that would attract foreign long-term investment.

In this chapter the author looks for answers to the following questions:

1. Are Latvian banks a part of global financial system?
2. If yes, will it help to achieve financial stability in Latvia?
3. And finally,
 - a) Are capital requirements in Latvia necessary and sufficient to achieve financial stability?
 - b) Are regulation and supervision of banks sufficient to achieve financial stability?

At the end of 2010 banking services in the Republic of Latvia were offered by twenty-one bank and ten branches of foreign (EU) banks as well as by credit institutions or their subsidiaries registered in the countries of the European Economic Area that have submitted their applications to the Financial and Capital Market Commission (FCMC). Eight electronic money institution and two money market funds have also been registered with the Bank of Latvia. [9]

The market share of 10 foreign branches in total assets was 12%, while the market share of 10 subsidiaries of foreign banks was about 55% in total assets, where 5 banks operated as subsidiaries of EU Member State with the market share more than 50% and 5 banks operated as foreign banks (CIS) with the market share smaller than 5% in total assets. [9] In total the market share of foreign branches or subsidiaries in 2010 was almost 67% in total assets.

Latvian banking market is also attractive for other European Economic Area member countries to undertake financial services in Latvia without opening a branch, as a result, during last five years the number of notification increased almost 2.5 times. [6; 10]

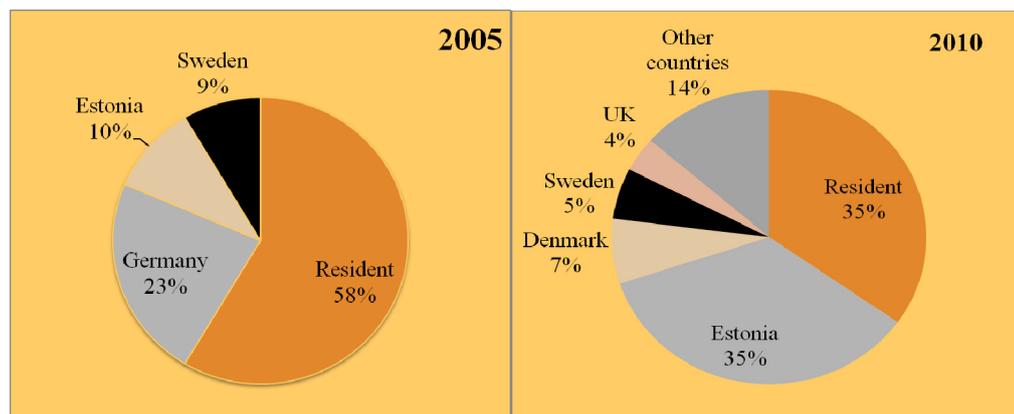


Figure 1. Banking paid-up share capital broken by countries in 2005 and 2010 in Latvia (as a percentage) [6; 7; 8; 9]

The role of banks in the attraction of foreign investment is confirmed by the fact that according to Financial and Capital Market Commission [9] data in Q2 2010 81.5% of institutions' liabilities to monetary financial institutions was comprised of foreign banks'



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financing to their Latvian subsidiaries and branches. However the share of foreign' liabilities is smaller than previous years (compared to 85.3% on 31 December 2005), but taking into account repayment of syndicated loans and a decrease of financing from parent foreign banks during last two years, this level is still constituted the major share in total banking liabilities to MFI.

Unfortunately Latvian banks are not so active in foreign markets and the market share of 11 Latvian branches abroad in total assets was 2.6% at the end of 2010 and all foreign activities took place within EU. [9]

According to the Financial and Capital Market Commission data, foreign shareholders owned 65% of the total paid-up share capital in Latvian banks at the end of 2010 (see Figure 1), what is less than previous years, but if compare with 2005 year (42%) (see Figure 1), we could see large increase.

According to Financial and Capital Market Commission data the main investors are from EU countries and the share of non- European countries is insignificant. [10]

Analysis that has been highlighted before indicates that the answer to the first question is more positive than negative. Our banks are part of European banking sector as we are a member of EU. And as a part of big European market we are effected by as positive as negative changes in the USA and Asia, so all over the world. Last global financial crisis affected our banking sector activities very significantly (see Figure 2).

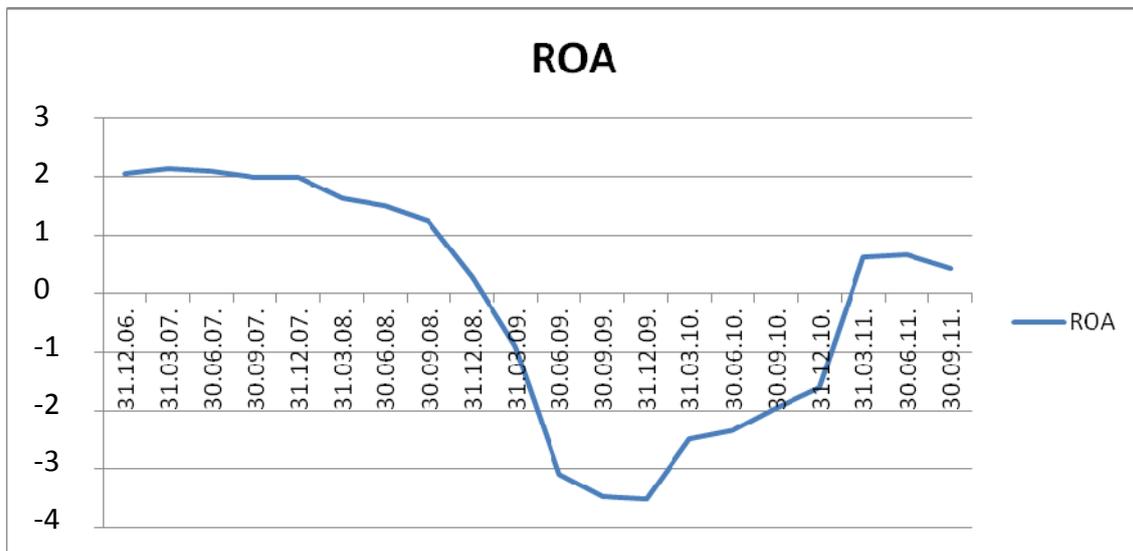


Figure 2. Dynamics of Return on Assets (ROA) for banking sector from 2006 – 2011 in Latvia (as a percentage) [6; 7; 8; 9; 10]

Banks concluded year 2010 with losses, albeit at a considerably smaller scale year-on-year since the need for building provisions moderated. In 2010, total bank losses amounted to 360.7 million lats (773.4 million lats in 2009). Expenditure on provisions for non-performing loans and commitments, the main reason for losses in 2010, shrank considerably (to 727.1 million lats, down from 1 266.1 million lats in 2009). As a result of smaller losses, ROE



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(-20.4%; -41.6% in 2009) and ROA (-1.6%; -3.5% in 2009) improved, although still remaining in a negative territory. [1]

Losses of the last two years were almost equal to the overall bank profit since 2000. An increasing number of banks made profit in some months. However, only nine banks earned profit throughout 2010, with their total profit amounting to 8.3 million lats and their assets accounting for 15% of total bank assets. Losses incurred by the three state-owned banks exceeded half of total bank losses whereas their assets were a mere 15% of total bank assets. [1]

As a result Latvian national banking sector is already constituent part of the global financial environment; however with regional aspects- our banks are more Europeanised.

The legislative framework for banking in Latvia meets the EU requirements in full, and in some areas the requirements are even more rigorous. The International Accounting Standards (IAS) has been fully introduced; banks' annual reports are prepared in accordance with IAS and audited by internationally recognised auditing firms. Practical supervision of the banking sector in Latvia is very tight and bank inspections are conducted more frequently than in the EU Member States.

But will it help to achieve financial stability?

To answer this question is a multifaceted task, and a lot of measures are on the table, but in this article the author tries to find answer to one special, as capital is a central part of the financial reform: “Are capital requirements in Latvia necessary and sufficient to achieve financial stability?”

In Latvia regulations on the Calculation of Minimum Capital Requirements took effect on 11 May 2007 (transposing requirements of directives 2006/48/EC and 2006/49/EC pursuant to provisions of the Basel II Accord regarding to minimum capital requirements) considerably affecting risk assessment and risk management in banks. [15] Banks made use of a possibility to apply these Regulations provided for in the Credit Institutions Law as of 1 January 2008 and submitted to the Commission the first reports for the 1st quarter of 2008 in accordance with the new Regulations.

Several new methods for risk measurement and assessment have been introduced along with the new Regulations allowing for more precise measuring of risk. The procedure for the calculation of credit risk capital requirement has been completely changed, namely, in the calculation the banks may choose either Standardised Approach or Internal Ratings Based Approach. Besides, in addition to requirements for credit risk and market risk the banks will have to calculate also capital requirements for operational risk.

During new requirements period (from the 1st quarter of 2008 to the end of 2009), the total amount of banking capital requirements decreased by 22.6 million lats or 2%. In 2009, the total amount of banking capital requirements decreased by 81.6 million lats or 6.8%, i.e. following a decrease in loan portfolio, capital requirements for credit risk shrank the most – by 63.5 million lats or 5.9%. By end-December of 2009 total amount of banking capital requirements made up 1126.9 million lats, of which the greater share or 90.2% were capital requirements for the credit risk inherent in the banking book, 8.1% – capital requirement for operational risk and 1.7% – capital requirements for position, foreign currency and commodity risks. In the following years the decrease of total amount of banking capital requirements continues (see Figure 3) [7; 8; 9; 10]



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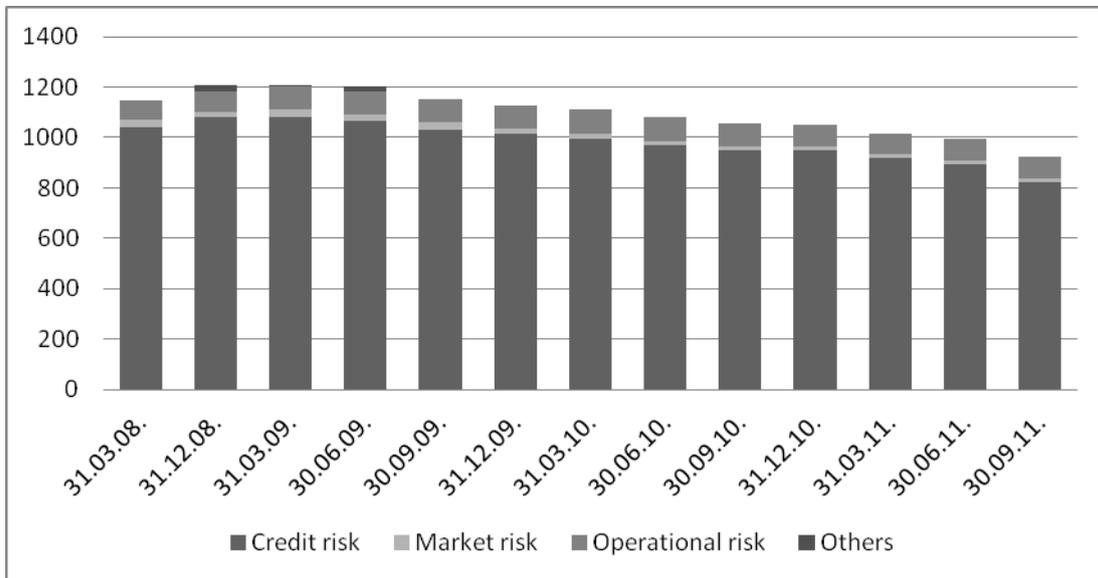


Figure 3. Breakdown of capital adequacy requirements from 2008-2011 in Latvia (millions Ls) [7; 8; 9; 10]

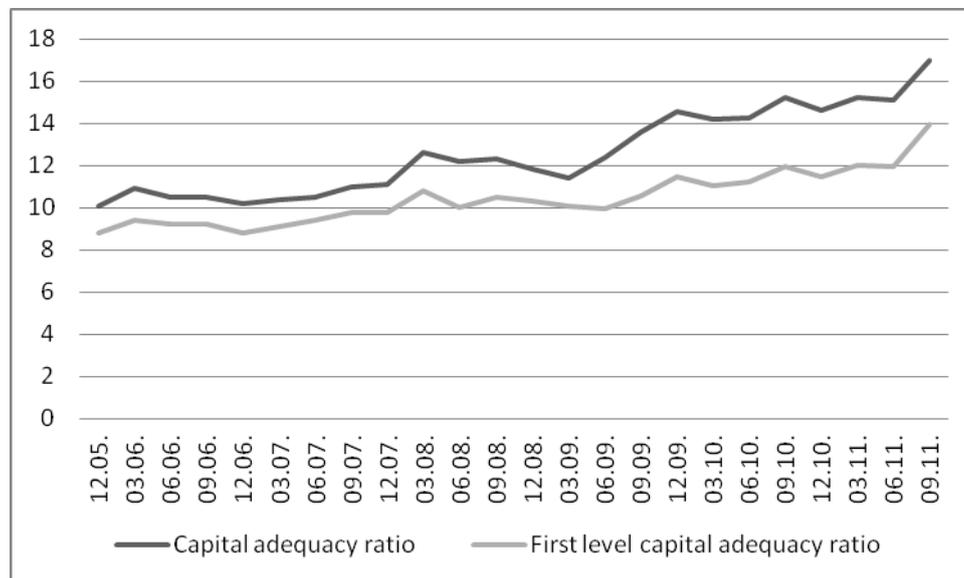


Figure 4. Capital adequacy ratio from 2005-2011 in Latvia (as a percentage) [6; 7; 7 8; 9; 10]

Following the ongoing deterioration in the banking asset quality and considering the necessity for notable additional provisioning for loan impairment, the banks attempted to strengthen their capital base in 2009 year – 13 Latvian banks increased their capital by about



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one billion lats in total, of which share capital by 728 million lats, subordinated capital by 222 million lats and reserves capital by 48 million lats. Upon an increase in the banking own equity by 14.7%, and a decrease in the amount of bank risk-weighted assets by 6.8% in 2009, capital adequacy ratio of the banking sector grew and at end-December totalled 14.6% (compared to 10.1% at end-2005) and restarted the growth from this year (see Figure 3.4) [6; 7; 8; 9; 10]

The capital adequacy ratio of banks was consistent with the regulatory requirements by the FCMC and stood at 17.0% at the end of 09.2011, whereas Tier I capital ratio amounted to 13.95%. Banks continued to boost their capital: 14 banks expanded capital during the 2010, with the overall increase amounting to 324.4 million lats, including a rise of 278.8 million lats, 20.7 million lats and 24.8 million lats in the paid-up share capital, subordinated capital and reserve capital respectively. [9; 10]

At end-2010 capital adequacy ratio below 10% was only for one bank with insignificant banking market share compared to the end-2005, when 7 banks with banking market share over 70% (see Table 1)

Table 1

Bank groups broken down by capital adequacy ratio in 2005 and 2010 in Latvia [6; 9]

Capital adequacy ratio (%)	31.12.2005		31.06.2010	
	Number of banks	Banking market share (% of total banking assets)	Number of banks	Banking market share (% of total banking assets)
below 10	7	74.4	1	-
10-15	7	18.3	11	41.9
15-20	3	5.5	5	41.7
above 20	5	1.9	3	2.6

In common we could see drastic increase of capital adequacy ratio for majority of banks compared to 2005 year.

It may be true that in the period after the restoration of independence, the Latvian economy has not had a chance to experience the full cycle of economic activity, and, as a result, domestic bankers do not have enough experience in this area. Luckily, however, most of the largest banks in Latvia are owned by foreign shareholders that have the requisite expertise and the experience. They are also best positioned to provide the necessary incentives for the domestic management of the commercial banks in Latvia. The foreign shareholders of the largest Latvian or, indeed, pan-Baltic banks must more emphasis on risk management and pay more consideration to sustainability issues in developing the business strategies for their Baltic branches, as opposed to short-term growth issues. For our banking system, which is relatively young, this could be the best way of benefiting from more mature markets where the banking experience and expertise have been accumulated over several hundreds of years.

Nevertheless to global cooperation in banking sector supervision the author offers to use the Nordic-Baltic countries experience to improve countries cooperation and to increase



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coordination by creating a permanent structure for regional cooperation. This structure takes the form of a so-called cross-border stability group.

It is important to emphasise that the establishment of a well-functioning cooperation structure is not something that is done overnight. On the contrary, the establishment of the Nordic-Baltic Cross-Border Stability Group has been an ongoing process for quite some time now. It started already in 2007 when Nordic-Baltic countries carried out a Nordic-Baltic crisis management exercise. By trying to manage an imaginary crisis using actual banks and applying the institutional and regulatory structures of the different countries, Scandinavians learnt from one another and realised the importance of working together.

By signing a Memorandum of Understanding (MoU) on financial stability, crisis management and crisis resolution in 2010 the ministries of finance, central banks and financial supervisory authorities in Denmark, Estonia, Finance, Iceland, Latvia, Lithuania, Norway and Sweden concluded the agreement in order to enhance the region's preparedness to deal with potential risks to cross-border financial stability. [4] This MoU strengthens the preparedness for dealing with cross-border financial stability issues in the Nordic-Baltic region. Signing this agreement means that the authorities in the Nordic and Baltic countries are the first to implement the provisions of the EU-wide agreement on cross-border financial stability established in June 2008. Moreover, the first European cross-border stability group is being appointed.

Capital requirements are necessary, but they are not sufficient. Indeed, the author argues that regulation was only part of the problem and it is only part of the answer. Capital is not enough; regulation is not enough. Capital reserves (buffers) and provisions need to be built up in good times so that they can be used in bad times, thus reducing the risk of spillover from the financial sector to the real economy. Lessons have been drawn by the Basel Committee on Banking Supervision concerning the need to improve the quality of capital, to raise the level of capital and to improve the framework's capture of risk, especially as regards the trading book. [3]

The author offers to build up capital buffers even higher in good times so that more can be taken from them in bad times.

Conclusions

1. Latvian banks have a significant share of foreign assets and liabilities that indicates that the national banking sector is already constituent part of the global financial environment. At the end of 2010 foreign shareholders owned 65% of the total paid-up share capital in Latvian banks. They held over 50% of paid-up share capital in ten banks.
2. The legislative framework for banking in Latvia meets the EU requirements in full, and in some areas the requirements are even more rigorous. Practical supervision of the banking sector in Latvia is very tight and bank inspections are conducted more frequently than in the EU Member States.
3. Is Latvian banking sector a part of global financial system?
Latvian banking sector is a part of European banking sector as Latvia is a member of EU since 2004. Latvian national banking sector is already constituent part of the global financial environment; however with regional aspects- our banks are more Europeanised.



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4. If Latvian banking sector is a part of global market, will it help to achieve financial stability in Latvia?
To answer this question is a multifaceted task, and a lot of measures are on the table, but in this article the author concentrates on to very important subjects: capital requirements and supervision.
5. Are regulation and supervision of banks sufficient to achieve financial stability?
Regulation is not enough, but regulation was only part of the problem and it is only part of the answer. The author positively values a new EU financial supervisory framework and establishment of a new European System of Financial Supervision (ESFS). The new two-pillar (macro-prudential and micro-prudential) system will help strengthen the supervision of financial system both as a whole, i.e. at the macro-prudential level, and at the level of individual entities, i.e. at the micro-prudential level. Nevertheless to global cooperation in banking sector supervision the author offers to use the Nordic-Baltic countries experience to improve countries cooperation and to increase coordination by creating a permanent structure for regional cooperation. This structure takes the form of a so-called cross-border stability group. As financial globalisation in the Baltic States has regional aspect we need stronger and tougher cooperation between national authorities – cooperation at the regional level.
6. Are capital requirements in Latvia necessary and sufficient to achieve financial stability?
Capital requirements are necessary, but they are not sufficient. Capital reserves (buffers) and provisions need to be built up in good times so that they can be used in bad times, thus reducing the risk of spillover from the financial sector to the real economy, but not the opposite what we have observed in last years as response to crisis.

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THE MERGER SYNDROME

– The Emotional Aspects of Mergers and Acquisitions –

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Keywords: ‘merger syndrome’, emotional events, employee resistance, merger outcome

Abstract

Mergers and acquisitions (M&A) are now commonplace in the European economy as companies try to improve their competitive position in a global marketplace. Research indicates, however, that many mergers have not resulted in the expected benefits, in part because organizations have neglected the human resource aspects of the change. Although M&A-transactions are characterized as highly emotional events, research on the emotional dimension of these events is still rare. This is especially the case as far as cross-border activities are concerned. This paper describes the typical effects of the merger process on the people involved and, identifies the necessity of considering the human resource factor within the mergers and acquisitions transactions. Recent M&A studies on human issues frequently call upon the ‘merger syndrome’ as a typical post-merger phenomenon and a concept used to describe the – usually negative – effects on the attitudes and behavior of employees in the affected organizations. In order to identify the potential causes of ‘merger syndrome’, I have looked at existing research literature which analyze the “soft” or human side of M&A as often one of the most problematic issues. Drawing on elements provided by the literature on the ‘merger syndrome’, this paper also introduces an analytical framework for investigating the role of emotions in international mergers and acquisitions transactions. The paper ends up with an overview of existing empirical studies to ‘merger syndrome’.

1. Introduction

Reviewing the literature of the last two decades reveals that the human factor was often cited as the ‘forgotten factor’ in mergers and acquisitions. Considering the increasing amount of M&A literature that incorporates ‘soft factors’, it seems that people issues can no longer be neglected. Strategic M&A preparations require thinking about both human and financial aspects. In this sense it can be questioned whether it is still appropriate to call the human factor ‘the forgotten factor’. Nevertheless the impression remains that people issues are still widely neglected in practice, although the human factors are receiving more and more attention in the



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M&A literature. Indifference is also reflected in daily media releases which tend to ignore the human factor when reporting about mergers or acquisitions.

The objectives of this paper are to explore the grade scientific research of the human factor in M&A environment and relevance of emotional aspects in context with the M&A-Transactions. Moreover, I am keen to help understand the emotional dimension and show the necessary research fields in this area. Before concluding the research paper, there is a short overview of possible measures to avoid the full hit of consequences of the ‘merger syndrome’.

In the past two decades, business headlines have been dominated by the term “merger mania”. Business press reports almost daily about proposed bid or announcement of a takeover or merger. A series of mergers and acquisitions (M&A) has increased substantially in volume and frequency. M&A-market is a very volatile market and develops in waves. The record volume was reached at the end of the 1990-ies and 2000. After a decline, the second most recent wave found its record in 2007. The economic crisis between 2008 and 2010 had negative impact on M&A volume. Despite the stock market turmoil and worries about sovereign-debt crisis that have rattled the euro zone, the region’s corporations remain cautiously optimistic about the prospects for the M&A-market. A number of indications suggest that 2012 could be a good year for this market [1]. Boston Consulting Group carried out a survey among European companies. According to that study, companies have been piling up cash levels and see attractive valuations in almost all economic sectors. In conclusion, the executives are ready to concentrate on growth with M&A transactions.

Mergers and Acquisitions

Mergers and acquisitions are different transactions from the legal point of view. Within the literature these two terms are mostly treated synonymously. The New Palgrave Dictionary of Economics defines an acquisition as ‘an outright gain of control over one organization’ and a merger as ‘the joining or gradually blending of two previously discrete entities’. An acquisition occurs when one organization acquires sufficient shares to gain control/ownership of another organization. Takeover may be generally classified as being ‘friendly’ or ‘hostile’. This distinction can be used to describe attitudes of the shareholders and negotiating senior management, rather than the workforce. For the latter, being acquired or merging is essentially only a semantic difference. Regardless of context or the quality of the merger, the merger or acquisition event creates considerable uncertainty.

Mergers and acquisitions are considered as different from any other processes of major organizational changes in terms of the speed of change, the scale of change and the critical mass of unknown variables for the two parties. In general, the merger process consists of three temporal segments: pre-combination, legal combination and post-combination. Mergers differ from acquisitions in term of the speed with which change and integration are introduced. Having made an acquisition, it is usual that the acquirer imposes its own control and business systems. The pre-integration phase continues for many months or years, before the actual physical or cultural integration. This whole phase puts high stress level and pressure on the workforce and leads to some psychological and emotional effects. Even if M&A transactions lead to major corporate changes and are difficult events to manage, there are several motives for firms to consider a merger or an acquisition. The primary purpose is usually to improve overall performance by achieving synergy [1], or the often described “ $2 + 2 = 5$ ” effect between two



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business units that will ensure firm's survival and increase the overall competitiveness. Other motives for M&A transactions are based on strategic decisions like product diversification, gaining access to each other's technology or market reach and thus increasing the market share. Creating value for both companies is further M&A justification which is mentioned, especially by the acquiring firm. For the selling or the acquired company the main reasons are lack of critical size and/or financial problems. External factors such as difficult market conditions, easing regulations, increasing availability of capital, the possibility to achieve tax relief, the need to share risk, the existence of complex inseparable problems and increased specialization can also lead to "merger mania" [2].

Beyond these "hard facts", there also more silent and unrecognized psychological motives for M&A transactions. The hidden fear of obsolescence, personal interest of shareholders to enhance firm's value (shareholder value) and management prestige, such as increasing market share and restoring market confidence, are typical examples for this kind of motives [5]. Additional motives found in literature [3] are egoistical needs of powerful individuals to gain collective influence, or simply the urge to follow the current fashion of empire building. Nevertheless, the potential of achieving synergy or other previously mentioned effects does not ensure that possibilities will be realized. Scientific researches show that around 75 percent of the mergers dismiss strategic, financial and operational objectives [9]. Although mergers and acquisitions are usually well planned out in terms of financial, legal and other aspects, the conclusion that has to be drawn is that these poor results have come to be attributed to insufficient human resource planning [6]. Consequently, for sustained competitive advantage to be achieved, it is necessary that the mergers and acquisitions be implemented from a financially and legally sound standpoint as well as from the human resources approach. It appears to be common knowledge that mergers and acquisitions often fail to reach the intended financial goals because of underestimated human factors [7]. It is suggested that 'employee problems' are responsible for between one-third and one-half of all merger failure [4]. This does not come as a surprise when considering that between 50 and 75 percent of key managers voluntarily leave acquired companies within the first years post-acquisition, and considering that the employee turnover rates are around 60 percent. Even in friendly and financially successful takeovers, this extremely stressful experience is considered to have negative residual effects on employees' psychological health [3]. Frequently cited reasons for merger failure are poor communications, the lack of any human merger plan, absence of emotional intelligent leadership and thus an ad hoc reactive approach to human problems. In these cases 'merger success' is measured in terms of behavioral indices like employee stress, organizational commitment and morale, job satisfaction, mental and physical well-being, sickness absence or fluctuation rates [ibid].

2. Definition and Causes of the 'Merger Syndrome'

The 'merger syndrome' is a phenomenon first documented by Marks and Mirvis in 1986. In almost all types of corporate combinations – be it a merger, acquisition or spin off, friendly or hostile, domestic or cross-border, most probably there is the human reaction to the corporate change to be expected [5]. The term 'merger syndrome' describes employees' reactions to a



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merger or acquisition and stands for the general term “Human Factor”. Usually the employees of the acquired firm are more affected by the big changes. That is why the ‘merger syndrome’ is more intensively felt in the “weaker” organization [ibid.]. Primary scientific research about the symptoms of the ‘merger syndrome’ as a primary cause of the disappointing results of otherwise successful M&A transactions was carried out by Mirvis/Marks. The syndrome occurs by the unavoidably unsettled conditions in the beginning of the deal announcement. It encompasses stress reactions and development of crisis management in the companies involved. The most interesting research results from Marks/Mirvis is that ‘merger syndrome’ arises even if the partners took some care to devise a thoughtful integration designed to minimize upheaval and provide due consideration for its effects on people [ibid.].

In the post-merger phase ‘merger syndrome’ effect gets amplified by centralization of decision making and by poor communication with the employees. This phenomenon is presumably due to the fact that in the pre merger planning stage managers are expected to maintain strict silence on the upcoming decisions, and therefore they are rather cautious not to reveal too much information prior to complete implementation [ibid.]. High workload and high uncertainty and expectations tend to lead manager teams of both companies to slide into crisis management mode. This situation is sometimes compared to states of warfare where critical decisions have been made, where the other side’s perspective and priorities are misestimated or fully ignored, and where counterstrategies are discussed [ibid.] Employees feel as group members of their own organization and identify with their organizational culture. Being acquired by another company, there is often a loss of identity and the employees’ identification with their company and their commitment are therefore likely to change after such a major change. The challenge for people is therefore to cope with this change of social identity [4].

3. The Conceptual Framework of the Role of Emotions in Mergers and Acquisitions

Signs of human stress are present in all combinations, even the friendliest and best-managed ones. Heightened self-interest is one of the most evident signs of the ‘merger syndrome’. Employees are preoccupied how the organizational combination impacts their own individual situation and what are the likely impacts for their incomes, career and even their families. They develop diverse scenarios and figments of imagination about possible implications of the M&A transaction on future benefits, possible spatial changes of the site and headquarters, and on redundancies [6]. Employees start different power games, and start to fight for their positions and privileges, for certain projects, and for “their” products and services [3]. Marks/Mirvis approached higher rates of illness and absenteeism in workforces going through mergers and acquisitions [6]. In 100 firms they worked with, incidents of high blood pressure among employees doubled from 11 percent in the year preceding announcement of the merger to 22 percent afterward. Interviews with executives in the early stages of a merger show rise of health problems, usage of alcohol and drug, sleeplessness. M&A stress affects employees’ psychological and physiological well-being. Increasing tension and conflicts at the workplace and at home, because family members worry about their fates and future perspectives are common. These symptoms are present at all levels of the combining organizations and “...many companies target their stress-management programs at hourly and clerical employees in hopes of reducing stress for the troops.” [ibid.]. To deal with the



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many tasks of combining, teams of executives in both the lead and target companies typically enter the “crisis-management mode” [ibid.]. Teams misestimate or wholly ignore the other side’s priorities and counterstrategies. They cut themselves off from relevant information and isolate themselves from dissent. According to psychologist Irving Janis, all of this is symptomatic and called groupthink, the result of accepting untested assumptions and striving for consensus without reality testing the possible consequences [ibid.]. It feels good to executives as they can take their fate in their own hands and devising plans for surviving the crisis. However, the crisis management only gives them the illusion that they are in control. In truth, they set themselves up for trouble. Managers isolate from employees and the overall communication tends to be formal and unsatisfactory and leaves room for further speculations: “What is management trying to hide from us?” [ibid.]. This uncertainty has a negative impact on integration endeavors and the overall productivity within the merged company. Management and organizational behavior research considers the phenomenon of emotions but not directly linked with their role in the process of mergers and acquisitions. The literature draws on elements provided by cognitive appraisal theory, affective events theory and the literature on the ‘merger syndrome’. Considering this literature, I set up an analytical framework based on research from Sinkovics/Zagelmeyer/Kusstatscher, which includes the causes of emotions, their role concerning employee attitudes and behavior, and their consequences in the process of mergers and acquisitions.

The defensive, fear the worst attitude is a usual and expected human reaction to the experience of such a major corporate change. The organization members going through a merger or an acquisition are shaken by intensive emotions. The literature mentions different emotions in M&A. In Figure 1 Kusstatscher/Cooper consolidated what different authors mention in the context of a ‘merger syndrome’. The emotions range from very negative to quite positive. Most of the affected organizational members feel “*irritated and insecure*” [5, 7]. The employees see the upcoming changes more as a threat than a positive challenge. Usually, there are not many employees who experience joy and pride after the announcement of a M&A transaction, and they are more likely to be found within the acquiring organization. The reaction of uncertainty is often aggression. Employees feel overcome by sense of helplessness, degradation, impotence and worthlessness and respond with bitterness, anger and rage against the decision makers and the acquiring organization [ibid.] These negative emotions often spill over into family life and lead to frustration, depression and to sinking into apathy. Also cases of suicide are known in situations which are perceived as frightening and hopeless [ibid.]. Managers often do not know how to react and what to tell employees in such situations, and tend to isolate themselves from employees. They also think that reporting all the happenings to the staff will increase their stress so they prefer not to say anything. In some cases managers adopt a “*trust us* [6] attitude regarding all those details. The decreasing interaction between managers and employees lead to doubts and distrust which lead to tensions in their relationship. In most M&A cases the buying company is considered as the stronger part and imposes her strategy, procedures and products on the acquired company. Employees who have to accept this react emotionally with aggression or frustration. The internal conflicts for positions, privileges and projects lead again to emotions like “*jealousy, mistrust and suspicion* [ibid.]. The stressful situation and people’s high involvement and vulnerability, especially within the acquired company, results in exhaustion. When the first colleagues and friends become redundant and have left the company, grief spreads out among the survivors and



they often feel pity for their colleagues and get sense of being guilty. This phenomenon is also known as the “survivors syndrome” [6].

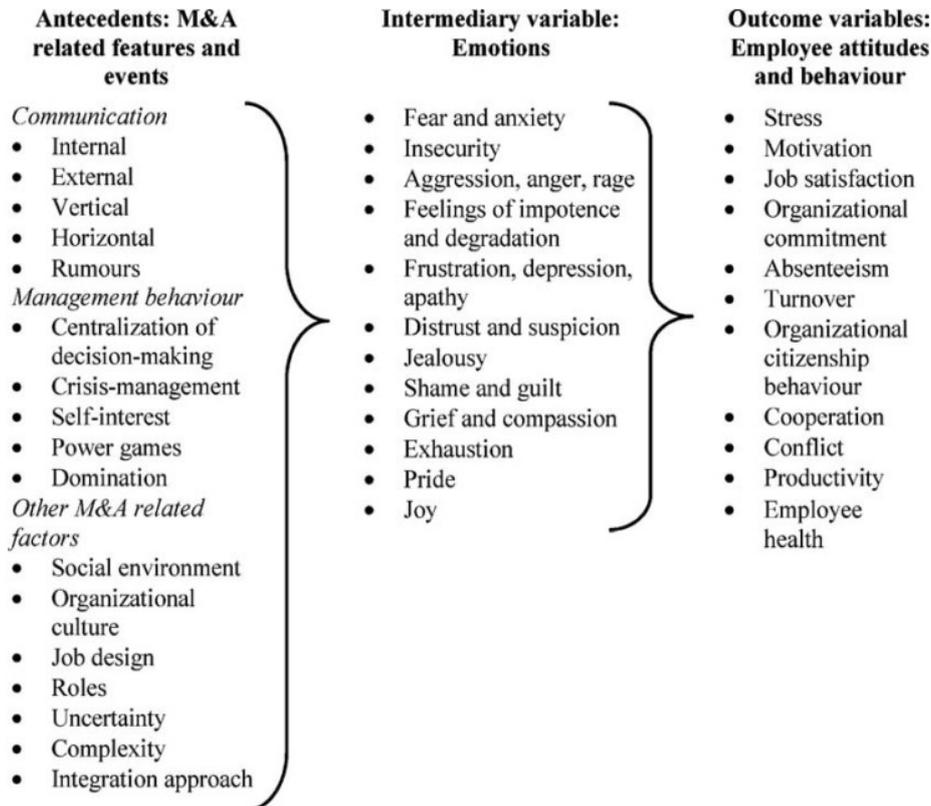


Figure 1. Conceptual framework of the role of emotions in mergers' and acquisitions [7]

The consequences of the ‘merger syndrome’ are decreased motivation, lower job satisfaction and reduced commitment towards the company. These states are expressed by reducing working input to a minimum amount. Further issue is the searching on the market for job alternatives. Usually the best qualified employees leave the company and contribute with that step to further uncertainty and not seldom to a massive employee escape [4, 7]. The residual employees, in order to cope with all these challenging events start to talk, gossip and distract each other from their work. This gets reinforced when top-down information is not clear or considered to be insufficient. The rumor mill starts and worst-case scenarios boom because no news is usually decoded as ‘bad news’ [4, 5]. The phone bills increase while the overall job performance suffers. Sometimes information and know-how are consciously held back as a consequence of mistrust and suspicion. In such an atmosphere team work, cooperation and integration of the acquired company becomes difficult. The partner-organization and even co-workers are sometimes rather seen as competitors than partners. The tensions in relationships



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between people on the same hierarchical level inside and across the companies, and in superior–employee relationships are likely to increase.

Also in relatively well prepared M&A transactions the managers and employees feel an extremely high degree of stress due to the high level of uncertainty, the increased work load and high expectations of success. Stress symptoms and decreased well-being and deteriorated health are the consequences which appear in the post merger time. The symptoms are higher blood pressure, headaches, visual problems, tingling in arms and legs, indigestion, muscle tension, sleep problems, change of eating habits, increased smoking, use of alcohol or drugs, careless driving and proneness to accidents, excessive and rapid mood swings, lack of concentration, increased irritability and anxiety [5]. The literature describes further health risk factors that affect all dimensions of health [4, 6, 7] For the employees physical fitness, social support, stress management skills are supposed to be strengths factors which influence physical and mental well-being and lead to positive working energy. The positively oriented and healthy employees influence companies' organizational and financial health. One of the main reasons why most of those affected have difficulties coping with the M&A is the fact that what they have perceived as their identity is being transformed into something new: the organizational culture of both merging partners is altering. Mergers and acquisitions can therefore be seen as a change of social identity.

4. Phases of Emotional Reaction

Mirvis (1985) has suggested that the psychological response to merger can be understood within the framework of the Kubler-Ross model of personal bereavement. According to this, the employee reactions will pass through four stages [6]:

Stage 1 – Disbelief and Denial

Shock is the first reaction of the individual, the employee denies that the merger or acquisition will ever happen despite circulating rumors or a bid announcement. Even when the deal is actually signed, the individual may strive to convince him- or herself that nothing will change.

Stage 2 – Anger through rage and resentment

When the reality and the merger or acquisition becomes reality, feelings of shock and disbelief are replaced by anger and resentment towards those considered responsible (often the senior management of the company).

Stage 3 – Emotional bargaining beginning in anger and ending in depression

As fear and uncertainty about individual job future develops, this anger often turns inwards. The individual becomes angry with him- or herself for not anticipating the event and may come to resent the commitment and loyalty he or she has invested in company. Often individual employee becomes increasingly nostalgic for what was in the past and may worry that his or her existing skills and areas of expertise are not transferable to the new company. These feelings may subsequently subside to be replaced by depression.

Stage 4 – Acceptance

The individual recognizes that what is past is gone forever, and accepts that he or she must face up to the new situation.



Until there is an acceptance that any attempt to deny or resist the situation is futile and unproductive, a positive approach will not begin to develop. Fixation a Stage 1-3 will result in preoccupation and unproductive behaviour, or even cause the employee to leave the organization. Similarly, acceptance may imply behavioral compliance but not necessarily renewed organizational commitment.

An further model from Marks/Mirvis shows the interaction of merger imposed stress and the commitment of the employees. Stress, commitment, and loyalty are stated as important factors for an organization because they all relate to turnover and absenteeism, which can reduce productivity.

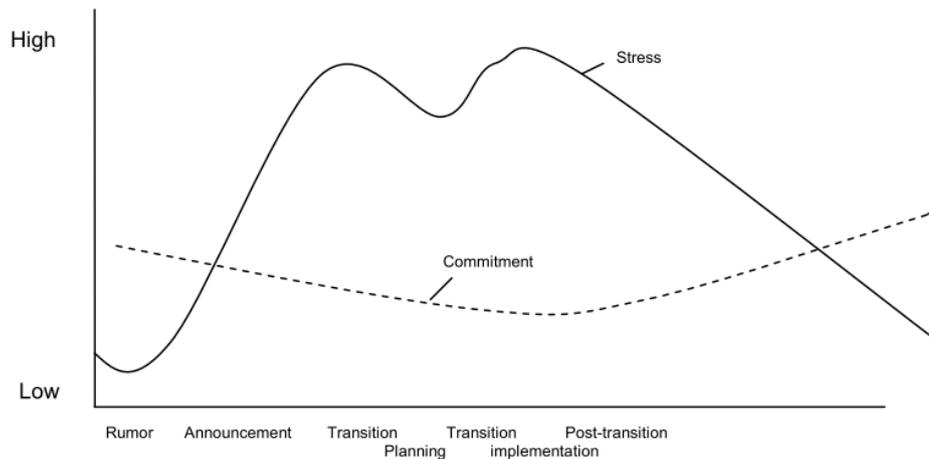


Figure 4. Stress and commitment cycles in mergers' and acquisitions [ibid.]

The inverse relationship between stress and commitment that is caused by corporate changes connected with downsizing of the workforce is probably destined to occur. However, the transition can be managed in a manner that reduces stress and the negative impact on productivity. "Every adult person finds himself in specific situations with respect to work, his recreation, his family life, his community life, etc., situations that call for adjustments. Adult education begins at this point" [ibid.] Employees can be more open to new concepts during periods of stress merely as a means to regain some control over their environment. Change is unavoidable, but if it is also traumatic, adults often look for activities and learning experiences to help them cope with the change. Human resource management can help employees identify and make the best use of learning activities by utilizing adult education theories that can improve organizational effectiveness and facilitate change.

5. Empirical Studies According to the 'Merger Syndrome'

There have been few studies carried out in order to conduct the human factor in the M&A-Transactions. In 1980-ies, Egon Zehnder and the London Business School carried out a survey of forty acquisitions in United Kingdom. While all forty companies conducted financial



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and legal audit, including the pension arrangements of the acquisition target, not one made any attempt to carry out an assessment of the company's human resources potential in the future.

In 2004, Cooper/Kusstatscher performed an empirical study with four organizations from different studies [5]. The interviewees were invited to comment on their personal emotional state and critical issues in the management of M&A processes. Factors were sought which, according to their perspective, had a significant impact on the outcomes of M&As. Cooper/Kusstatscher concluded that the behavior of the M&A managing people and their integration strategy notably influence the emotional state of employees. And since emotions are the driving force for actions (according to the definition of emotion), employees' emotional states influence their readiness to contribute to merger or acquisition success. The study also revealed that in many cases organization members identify with their pre-merger company. It takes a long time until the employees of the two companies really feel committed to the newly merged company, and until they develop a 'we' feeling [ibid.]. Beneath the usual difficulties measuring employees' emotional states, the authors name confidentiality problems before the official M&A announcement. In this phase it is difficult to gain access to companies in the pre-merger or during-the-merger stage. Therefore a retrospective study of emotions appeared to be the closest they could get researched.

Recent empirical research was performed by Sinkovics/Zagelmeyer/Kusstatscher [7]. The research was based on responses from the three hierarchy levels which were enriched by observations and field notes (interview behavior such as gestures to indicate irony/humour; cultural indicators, such as architecture, configuration of cafeterias/meeting rooms) and secondary data (newsletters, newspapers). The study showed that not only the acquirer/acquiring situation accounts for emotional well-being, but also—and more importantly—the way how the M&A process is managed. Another interesting finding is the fact that awareness of emotions (i.e. expressed attitudes towards emotions) was significantly more frequent amongst interviewees of companies where negative emotions were predominant. It can be concluded that people dominated by negative emotions are more aware of their emotional state and experience a stronger urge to reflect and talk about emotions than other people. Study findings indicate that specific attention needs to be given to the correspondence between management communication and management behavior and the assessment of the quality of communication by superiors and subordinates. The limitations of the study were the high degree of confidentiality and the retrospective approach. As the cases were retrospective studies of emotions, the authors could only apply perceptual measures of emotion. The three studies considered in this chapter show that M&A transactions necessarily involve unpleasant decisions. However, the findings reveal that employees' reactions mainly depend on the way how bad news is communicated and how individuals are treated by the management. Purely 'logical' and 'rational' communication of the reasons for merger is not always sufficient to convince employees. Avoidance or attempts to reduce the intensity of emotions does not help. Consequently, managers need to accept that emotions play a critical role in M&As.

6. Conclusion

M&A-Transactions are critical phenomena. From an economic perspective, M&A-Transactions are frequently events, which reshape entire industries. From the firms perspective,



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M&A-Transactions often represent the single most important economic decisions in the life of a firm, bearing great opportunities as well as great risks. From an employee perspective, M&A-Transactions are source of uncertainty and change. The M&A-Transactions are characterized by high number of merger failure and negative implications for the employees affected. Numerous articles and studies acknowledge the high emotional factor of such transactions and call for an increased awareness of psychological and human factors. Despite a long list of this research documents, the knowledge on assessing the human factor in M&A-Transactions is still very limited. Key questions about success factors get contradictory answers. Other questions still need to be resolved.

First, it is difficult to separate the emotions from other states such as moods or enduring emotional states arising from a temper. This leads to terminological ambiguities and consequently the categorization of 'emotions' might be criticized. Second, the emotions are difficult to measure and this sets limits to the theoretical survey questions that can be addressed in a field research. Third, it might be difficult to gain access to companies in the certain stage of merger. Therefore, solely a retrospective study of emotions might be possible. According to the retrospectiveness of the studies, future research is encouraged to employ a longitudinal perspective where emotions can be measured concurrently along to the integration activities.

Based on my literature research, I identified a gap what is the key to unlock synergy potentials considering the employees of the merging firms. The concrete measures and concept how to meet such problems are rare and not fully researched, so that there is no – at my best opinion – clear concept which describes best practice solution. Also there is no study that investigates cooperation between employees of merging firms in the aftermath of an M&A-Transaction. As the M&A environment gets more active, the necessity of researching the human factor is highly necessary.

However, because of the complex and high sensitiveness and the difficulties of getting access to companies, the concrete approach to this topic might possibly remain just wishful thinking.

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ACTIVE EMPLOYMENT ACTIVITY'S INFLUENCE ON LATVIAN STATE AND MUNICIPALITIES' BUDGET DURING YEARS 2009 – 2011 – RESEARCH RESULTS

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Keywords: state, municipality budget, administrative, organisational, alternative expenses

Abstract

The purpose of this article is to quantify the impact of the World Bank project to provide stipends to the unemployed in exchange for working at municipalities on the state and municipal budgets. This paper is based on the results of research project “Active employment activity “Training for acquiring or maintaining employment skills, if the employee is a municipality” result evaluation” that was ordered by the World Bank and Latvian State Employment Agency. The economic essence of this activity is 100 LVL stipend payments to unemployed people that for the received money do various jobs in employment places created by municipalities.

Using the data from the Central Statistical Bureau, State Employment Agency, and the results of a survey of households, municipality representative and expert survey results, the author shows the influence of the activity on the state and municipality budgets by assessing:

- Activity's administrative and organisational expenses;
- Alternative costs – implementation of the Activity means that the municipality does not have to cover expenses that it would have to cover if the Activity would not be implemented.

The author shows that the World Bank designed activity had helped numerous inhabitants of Latvia to ensure at least a temporary employment and maintain their desire to stay in the labour force. Taking into account the fact that Latvia's GDP data indicates strong and long lasting effect from the economic crisis on all regions in Latvia, there remains a real necessity for such stimulus measures.

Introduction: The Macroeconomic Effect of the Activity

The macroeconomic effect of the World Bank funded programme (further referred to as Activity) is the effect as a result of which economic indicators change, for example, level of gross domestic product, employment level, etc in the given region [1]. Methods that are used for assessing economic effects can be divided into two groups:

1. Economic simulations and input / output models of the achieved results and used resources. Economic simulation models are used to evaluate economic influence over a long



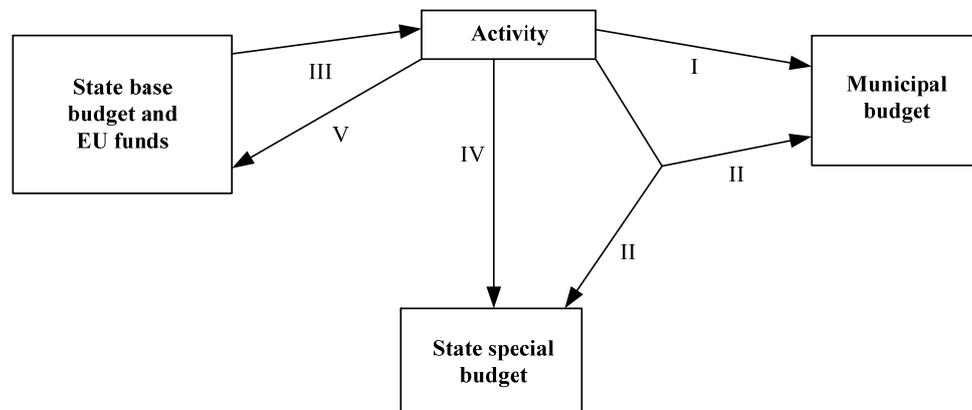
period of time and forecast the influence in the future as well as to control all the direct and indirect effects of the analysed activity. Such methods are applicable, for example, to assess pension system changes, health system reform results, the influence of EU structural funds over several decades and in similar cases (see, for example, [2], [3], [4]).

2. Input / output modelling of used resources and achieved results is a simpler method that is based on the so called accounting approach by dividing variables into ingredients (for example, national demand consists of household and public institution consumption as well as gross capital formation) and analysing the influence of the activity on its ingredients as well as their interaction. These methods are not usable for forecasting but for analysing the influence of different programmes and activities (see, for example, [5], [6], [7], [8]).

Methods used in this paper are based on methods used in modelling of used resources and achieved results. The choice of these methods is based on two factors: firstly, the Activity has a relatively short term character and forecasting is not necessary, secondly, availability of data is limited especially for regions, thus usage of more difficult methods will increase the number of applied assumptions that will affect the credibility of the results.

1. Assessment of Activity's Influence on State and Municipality Budgets

Figure 1 shows the different ways the Activity can influence on state and municipality budgets.



Notation:

- I – as part of the Activity resources are allocated to municipalities and allows to increase municipality budget income;
- II – Activity creates a possibility to not pay various social contributions to people that are involved in the activity from the state special and base budget, for example, GMI that allows to save budget resources;
- III – necessary financing from state base budget and EU funds for implementation of the activity;
- IV – social taxes are paid for people involved in the activity (including administrative personnel, organisers, etc.) that allows to increase budget income;
- V – wages received by the beneficiaries increase demand, therefore the state base budget receives VAT and other consumption related taxes.

Figure 1. Activity's influence on state and municipality budget

Source: figure created by the author



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Resources allocated to municipalities during the Activity (I) and their proportional distribution is described in Tables 1 and 2. The approximate assessment of savings that arise as a result of the activity (II), based on the results of a survey of municipalities, are provided in Tables 3 and 4.

The necessary additional financing for this activity (III) is described in Table 5. Available data does not allow precisely assessing the additional tax revenue that arises as a result of the Activity (IV and V) because social security tax payments and value added tax (further – VAT) payments depend on each individual employee and their specific consumption patterns.

The influence of the Activity on state and municipality budgets can be assessed in the following ways:

- Assessment of Activity's administrative and organisational expenses – the implementation of the Activity in each municipality is connected with administrative and organisational expenses the largest part of which are covered from state and EU fund budget, however, 88 municipalities indicated that there were additional costs related to the implementation of the Activity;
- Assessment of alternative costs – the implementation of the program means that municipalities did not have to cover expenses that they would have had to cover if the Activity would not have been implemented.

To assess the influence of the activity on municipal budgets, it has to be pointed out that in addition to Activity's participants' monthly stipends (100 LVL per person for month of employment) from EU funds and state budget allocated for implementation of the Activity, the following expenses were financed:

- Acquisition and lease of inventory up to 80 LVL per each employment place (inventory lease does not exceed 10 LVL per employment place, however, sum for additional materials does not exceed 40 LVL per each employment place);
- Transportation costs (fuel, transport or public transport tickets) incurred from Activity's participants travelling to the employment place and back no more than 72 LVL per each employment place;
- Health check-up of all unemployed people participating in the Activity up to 20 LVL per person (in cases determined in laws and regulations on mandatory health examinations);
- Payments for employment managers amounting to minimal monthly salary determined in Latvian legislation (also employer mandatory social contributions) if employment manager oversees not less than 30 unemployed persons. If the number of supervised unemployed persons is less than 30 unemployed persons, reward is calculated proportionally to the number of unemployed persons;
- Subsidies for salary amounting to 90 lats per calendar month to employment organisers (one employment place for an organiser is budgeted for each municipality);
- Subsidies for salary amounting to 90 lats per calendar month to employment accountants (one employment accountant is budgeted for each municipality).



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Table 1

Non-stipend expenses for implementation of the Activity (09.2009 – 12.2010)

Region	Reward for employment managers, LVL	Subsidies to organisers, LVL	Subsidies to accountants, LVL	Rapidly depreciating inventory, LVL	Transportation costs for unemployed, LVL	Health examinations for unemployed, LVL	Total, LVL
Riga	145 737.62	13 054.09	7 860.62	187 469.20	115 717.42	13 353.61	483 192.56
Pierīga	281 823.87	46 734.80	27 101.78	325 179.60	67 874.14	7 019.36	755 733.55
Vidzeme	306 979.43	42 991.26	25 106.98	384 484.07	88 575.25	13 415.85	861 552.84
Kurzeme	363 386.03	31 509.47	18 408.79	427 747.66	158 666.27	9 021.47	1 008 739.69
Zemgale	298 436.59	35 890.45	20 950.06	385 489.02	139 798.31	7 400.58	887 965.01
Latgale	738 763.23	36 240.64	21 247.08	934 646.30	331 149.17	70 205.07	2 132 251.49
Latvia	2 135 126.77	206 420.71	120 675.31	2 645 015.85	901 780.56	120 415.94	6 129 435.14

Source: State Employment Agency (ESA) data, 17.02.2011

Table 1 summarises the data about non-stipend expenses that were financed from the funds allocated for the Activity from September 2009 to December 2010. The largest expense item during this period has been rapidly depreciating inventory.

Data in Table 2 show the differences in the relative proportion of expenses as well as in expenses per each person in regions of Latvia. Largest salary and subsidy proportion in total expenses was in region around Riga (Pierīga) – 47.06%, followed by Vidzeme region – 43.54%. In all other regions of Latvia the proportion of salaries and subsidies is very similar: around 40%. The lowest proportion of salaries and subsidies is in the Riga region – 34.49%. In part, this could be explained with the fact that in different regions there was a different necessity for the acquisition of inventory and other expenses and planning of purchases during years 2009 and 2010.

Table 2 shows that in Riga and the region around Riga municipality expenses financed per one participant are higher than in other regions in Latvia (LVL 93.55, of which LVL 32.27 were used for salaries and subsidies and LVL 61.29 for purchases). The largest salaries and subsidies per each participant were in the region around Riga (LVL 40.49). In Vidzeme and Zemgale salaries and subsidies for each region were also high (LVL 36.08 and LVL 37.20 respectively). Purchases per each Activity's participant differ between regions more than salaries and subsidies, because the need for inventory depends on the organised employment places. Highest expense for purchases is in Riga region (LVL 61.29), however, the lowest expenses are in the region around Riga (LVL 45.55).

Non-stipend expenses as a percentage of the total expenses should be minimized, taking into account the fact that the main objective of the project is to provide support to the unemployed people than are in the most disadvantageous material situation. In all regions in Latvia this proportion is similar (approximately 20%) except Riga where it is 25%. It means that, based on this criteria, the implementation of the Activity in all regions of Latvia was equally effective.



Table 2

Shares of non-stipend expenses of implementation of the Activity in 2009 – 2010

Region	Salaries and subsidies, as percentage of total expense, %	Purchases as percentage of total expense, %	Number of participants	Salaries and subsidies per participant, LVL	Purchases per participant, LVL	Total municipality expenses per participant, LVL	Non-stipend expenses as percentage of total expense, %
Riga	34.49	65.51	5 165	32.27	61.29	93.55	25.12
Pierīga	47.06	52.94	8 784	40.49	45.55	86.04	20.11
Vidzeme	43.54	56.46	10 395	36.08	46.80	82.88	20.72
Kurzeme	40.97	59.03	11 849	34.88	50.25	85.13	20.35
Zemgale	40.01	59.99	9 550	37.20	55.78	92.98	21.51
Latgale	37.34	62.66	23 867	33.36	55.98	89.34	20.75
Latvia	40.17	59.83	69 610	35.37	52.68	88.05	20.99

Source: SEA data, author calculations, 17.02.2011

Thus, one can *conclude* that:

- The ratio of non-stipend expenses to total activity costs in Latvia overall from September 2009 until December 2010 was 20.99%;
- Municipality non-stipend expense distribution in salaries and subsidies as well as in other costs financed by the Activity (acquisition of inventory, health insurance, transportation cost, and other) in Latvia overall from September 2009 until December 2010 was approximately 40% for salaries and subsidies but – 60% for other expenses;
- There are differences in these proportions between regions¹. It could be explained with different tasks that had to be done before and during the implementation of the program.

2. Assessment of Activity's Alternative Costs

To assess municipality alternative costs a question was included in the municipality survey about the number of people involved in the Activity who did not receive social contributions from the start of the activity during years 2009 and 2010. Table 3 summarises the responses of municipality representatives.

¹ By looking at the analysed data it can be seen that differences exist between year 2009 and 2010. Municipality non-stipend payments per one participant increased in year 2010 compared to year 2009. That can be explained by the fact that in year 2010 after municipality request changes were made in Cabinet of Ministers regulations on implementation of the Activity by adding a non-stipend expense type for municipalities.



Table 3

Number of people involved in the activity (arithmetical average²), who stopped receiving social contributions because of participating in the Activity, 2009 – 2010

Expense position	2009		2010 (as at 01.11.2010)	
	Number of people receiving social contributions	Number of months for which social contributions have been paid	Number of people receiving social contributions	Number of months for which social contributions have been paid
GMI benefit	62 (24) ³	3.41 (22) ⁹	44.5 (29) ⁹	5.6 (27) ⁹
Flat benefit	7.4 (14)	1.4 (13)	6.5 (18)	3.2 (15)
Other benefits (not explicitly stated)	121.5 (11)	3.3 (11)	35 (11)	2 (11)
Other benefits (not explicitly stated)	36.2 (9)	0.1 (9)	76 (10)	0.9 (8)

Source: Municipality representative survey conducted in November 2010 (n = 29), author calculations

Data in Table 3 shows that alternative costs of municipalities (expenses that should be covered if the activity would not be implemented), consists of GMI⁴ benefits, flat benefits and other expenses. However, only 29 municipalities responded to this question (out of more than a 100). The low number of respondents is possibly due to the fact that municipalities do not account for people for which social benefit payments are stopped or in the municipality accounting it is not possible to separate the information by reasons why the benefit payments were stopped (i.e. whether the person is a participant of the Activity or has recently found employment).

Municipality savings from GMI benefit payments can be determined by multiplying the average number of people receiving benefits in the municipality with the average term of participation (in months) in the Activity and the amount of paid GMI benefit. The sum that was received in this way can be multiplied with the number of municipalities (there are 119 municipalities in Latvia) to determine the total alternative costs.

The maximum level of GMI benefit for grownups in Latvia is 40 LVL⁵. A half from the payable GMI benefit has to be covered by municipalities, thus the result of calculations has to

² Among the municipalities that responded is not municipality of Riga, whose results possibly would significantly differ from the ones of other municipalities. It means that even by taking into account the small number of municipalities that responded, arithmetical average is an appropriate method how to summarise information that was provided by municipalities for approximate assessment of savings.

³ The number of municipalities that responded to this question is shown in parenthesis.

⁴ Guaranteed minimal income.

⁵ According to Cabinet of Ministers regulations No. 1489, the guaranteed minimal income level for adults in Latvia is 40 LVL. GMI benefit amount is calculated as the difference between GMI level and family's (individual's) total income (see Ministry of Welfare explanation <http://www.lm.gov.lv/text/132>).



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be divided by two. The alternative costs (savings) of Latvian municipalities are assessed using two approaches:

1. At the maximum possible GMI amount 40 LVL – in such case the maximum municipality savings are assessed;
2. At the average payable GMI amount (LVL 27) – in such case the factual municipality savings are assessed. Table 4 shows the results of savings calculations using both approaches.

Table 4

Total alternative costs (savings) of Latvia municipalities during years 2009 and 2010

Position	Number of people	Average term of participation (based on ESA data)	Maximal amount of the benefit	Average amount of the benefit	Total alternative costs in one municipality, LVL		Total alternative costs of all municipalities, LVL	
					With maximal benefit $E = A * B * C$	With average benefit $F = A * B * D$	With maximal benefit $G = (E/2) * 119$ municipalities	With average benefit $G = (F/2) * 119$ municipalities
In year 2009								
	A	B	C	D				
GMI benefit	62	2.32	40	27	5753.6	3883.68	342.34	231.08
Flat benefit	7.4	2.32	N/D	N/D	N/D ⁶	N/D	N/D	N/D
Other expense	121.5	2.32	N/D	N/D	N/D	N/D	N/D	N/D
Other expense	36.2	2.32	N/D	N/D	N/D	N/D	N/D	N/D
In year 2010								
GMI benefit	44.5	3.33	40	27	5927.4	4001.0	352.68	238.06
Flat benefit	6.5	3.33	N/D	N/D	N/D ⁷	N/D	N/D	N/D
Other expense	35	3.33	N/D	N/D	N/D	N/D	N/D	N/D
Other expense	76	3.33	N/D	N/D	N/D	N/D	N/D	N/D

Source: ESA data as at November 2010 and municipality representative survey made at November 2010, author calculations.

⁶ The available data exactly about participants involved in the Activity are not sufficient to precisely calculate alternative costs of municipalities in these positions.

⁷ The available data exactly about participants involved in the Activity are not sufficient to precisely calculate alternative costs of municipalities in these positions.



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Data in Table 4 shows that in 2009 the maximum alternative GMI benefit costs on average per municipality would be LVL 5753.6, in 2010 it would be slightly higher – LVL 5927.4.

However, in 2009 the average alternative GMI benefit costs on average per municipality would be LVL 3883.68; in 2010 it would be slightly higher – LVL 4001.

Taking into account that the municipality average additional costs based on municipality survey results were LVL 3139.38⁸, one can be pointed out that even considering the possibility to not make GMI benefit payments (possibility to not pay alternative costs) the savings for municipalities are higher than the average additional expenses for organisation of the Activity.

The total municipality savings from the maximal payable GMI benefit can be assessed as LVL 342.34 thousand in year 2009 and LVL 352.68 thousand in year 2010. By using the average GMI benefit payment, this assessment decreases to LVL 231.08 thousand in year 2009 and LVL 238.06 thousand in year 2010.

Table 5

Activity's influence on Latvia's state budget

Position	2009 (Sept.– Dec.)	2010	2011	Total, LVL
State budget financing for the Activity, LVL ⁹	1 285 314.43	3 874 800.24	773 801.21	5 933 915.88
Available European Social fond financing for the Activity, LVL	6 767 511.11	23 362 470.31	18 321 536.64	48 451 518.06
Stipends that were paid out during the Activity, LVL	6 719 739.25	21 790 292.61	N/D	
Amount of money paid as unemployment benefits, LVL	49 375 650	88 819 707	87 076 783 ¹⁰	187 337 425

Source: SEA and Ministry of Welfare data, 21.04.2011

It is worth recalling the low number of municipalities that responded. The credibility of the results would be lowered, for example, if only large or only small municipalities would have

⁸ This number is the arithmetical average of additional payments that the municipalities that answered to the respective question indicated. The municipality of Riga is not among the municipalities that responded.

⁹ This number includes non-attributable expenses that are planned to amount to LVL 810 991, 89 over three years. Source: Financial summary for changes No. 13 in Project No.1DP/1.3.1.5.0./09/IPIA/NVA/001 "Work practising activity provision in municipalities for acquiring and maintaining work skills". Accepted in the Ministry of Welfare on 21.04.2011 (letter No.11.2-12/998).

¹⁰ Ministry's of Welfare sector's budget transcript is available at: http://www.lm.gov.lv/upload/amatpersonu_atalgojums/noz_budz_2011.pdf, 35. lpp.; data as at 28.04.2011. Budget amendment Project includes predicted resource decrease for social benefit payments (in project: 76 363 159 LVL).



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answered to this question, because that could influence the assessment of the number of people that received the benefit. It turns out that mostly smaller municipalities answered possibly because it is easier for them to account for people that stopped receiving benefits as well as the reason why these payments were stopped. Thereby, this calculation possibly is very conservative as larger municipalities could have larger savings.

The influence of the Activity on state budget can be assessed using SEA prepared project's budget in which the state budget financing is given.

As shown in table 5 the highest state budget financing and together with that also a direct impact on year 2010 budget, despite the fact that the Activity continued until the end of year 2011.

Total state budget financing for the Activity is very low compared to state special budget, in which the largest part of social protection activities are included (0.45%). Hence, when analysing Activity's influence on state budget it is useful to compare Activity's financing in 2009 and 2010 not from the state special budget but with the amount of money that was paid out as unemployed benefits in years 2009 and 2010 because as part of the Activity the paid stipends replace unemployment benefits.

It has to be pointed out that Activity's financing included not only the paid stipends (79% from the total used financing overall in Latvia) but also Activity's non-stipend expenses (21% from total used financing), thus in the analyses only the financing used for stipends will be used.

From September 2009 until December 2010 the financing allocated for Activity's stipend amounted to LVL 28.51 million. However, the money allocated for unemployed benefits for the same period was LVL 131.20 million. Thus Activity's financing for stipend payments build up to 21.7% of the financing allocated for payment of unemployment benefits, which indicates that the Activity significantly increased the total financing and was used for supporting unemployed people by allowing Activity's participants to earn money by working.

The number of people that receive stipends as part of the Activity until 30 November, 2010 according to ESA data was 69 610 people. In December 2010 the number of registered unemployed people that no more received social benefits was 124 458 people (this number has consistently increased from 74 251 people in September 2009 until 124 458 people in December 2010). Thus, the proportion of people receiving stipends against the unemployed people that do not receive benefits at the end of the period was 54.1%.

Therefore the Activity has provided with stipends a number of people that make more than one half of the people that do not receive unemployment benefits using financing amount that makes up 21.75 of financing allocated for unemployment benefits that in year 2010 was approximately LVL 118 per month). The Activity had also provided intangible benefits to the participants of the Activity because it helps participants to maintain the existing and acquire new work skills as well as ensures a certain level of socialisation and involvement in the society. World experience shows – the longer people are unemployed, the lower is the possibility for them to enter the employment market further on [9]. Table 6 is depicted the information about households that answered the question, whether they currently receive some of the benefits paid by municipalities.



Table 6

Respondents receiving social benefits during the past 12 month in regions of Latvia

Region	Number of surveyed households in the region	GMI benefit		Dwelling benefit		Benefit for heating/ firewood		Dinner at school		Other municipality's social help	
		N	Proportion (%)	N	Proportion (%)	N	Proportion (%)	N	Proportion (%)	N	Proportion (%)
Kurzeme	793	148	18.66	30	3.78	69	8.70	107	13.49	34	4.29
of which Activity participants	300	82	27.33	29	9.67	66	22.00	47	15.67	12	4.00
Latgale	451	41	9.09	13	2.88	31	6.87	48	10.64	41	9.09
of which Activity participants	123	34	27.64	11	8.94	30	24.39	13	10.57	8	6.50
Riga	618	130	21.04	99	16.02	62	10.03	47	7.61	89	14.40
of which Activity participants	215	58	26.98	45	20.93	48	22.33	22	10.23	35	16.28
Vidzeme	659	129	19.58	12	1.82	49	7.44	108	16.39	47	7.13
of which Activity participants	278	116	41.73	16	5.76	105	37.77	61	21.94	19	6.83
Zemgale	544	91	16.73	19	3.49	54	9.93	88	16.18	80	14.71
of which Activity participants	212	69	32.55	18	8.49	71	33.49	38	17.92	38	17.92
Total	3065	539	17.59	173	5.64	265	8.65	398	12.99	291	9.49
of which Activity participants	1128	359	31.83	119	10.55	320	28.37	181	16.05	112	9.93

Source: household survey (n=3065), November 2010 – March 2011

Table 6 shows that in Latvia 17.59% of the surveyed households during the past 12 month received GMI benefit, 5.64% received dwelling benefit, 8.65% received heating benefit, 12.99% received school meal benefits and, finally, 9.93% households received some other social benefit ensured by the local municipality.¹¹

¹¹ It is possible that some people receive more than one of these benefits.



By analysing the answers of the respondents for which at least one people from their households is a participant of the Activity, it can be seen that 31.83% specified GMI benefit as the answer to the question ‘Does someone from Your household during the past 12 months have received payments from the following source?’. From the respondents, for which none of their household members is a participant of the Activity, only 9.29% said the same¹². This confirms that the Activity provides municipalities with a significant possibility to save and the previously shown saving assessment could be conservative. Precise savings in each specific case are determined by the specific benefit’s dependence on the household type and similar aspects. Subjective evaluations by municipalities also confirm savings as described below (see Table 7).

Municipality respondents were asked to assess the Activity’s influence on the municipality’s budget on a 10 point scale where evaluation of 10 meant that the implementation of the Activity is very beneficial for the municipality, while evaluation of 1 meant that implementation of the activity is very disadvantageous. In table 7 respondent answers to this question are summarised.

Table 7

Latvian’s municipality opinion about the Activity’s influence on municipality budget

Position name	Evaluation
Percentage of municipalities that answered to this question	92%
Minimal assessment (on a 1- 10 scale)	2
Maximal assessment (on a 1- 10 scale)	10
Arithmetic average (mark)	7.40
Assessment median	8.0
Assessment mode	8.0
Standard deviation	1.79

Source: Municipality representative survey in November, 2010 (n=116), author calculations

Data in table 7 shows that municipalities evaluate the Activity’s influence on budget as positive – average evaluation is 7.40 out of 10, however, mode and median – statistical indicators that are less affected by too high or too low evaluations – is 8. Municipality assessment standard deviation is 1.79 meaning that municipality assessments are relatively similar. To evaluate the opinion of municipalities in more detail, Table 8 summarises the frequency distribution of responses.

Only five municipalities assessed the influence of the Activity on their budgets as lower than 5 out of 10.

¹² This number was derived by dividing 180 people (539 – 359) that received GMI benefits but did not take part in the Activity with the number of surveyed households that did not participate in the activity (3065 – 1128 = 1937 people).



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On a regional scale regions like Riga, Pierīga, Vidzeme un Zemgale assessed Activity's influence on municipality budget with a mark of 7 (beneficial), while Latgale and Kurzeme evaluated it as 8 (very beneficial). As indicated by the survey results, the evaluation of the activity in the additional comments is markedly positive. The largest part of the surveyed people (more than 70%) have given an evaluation 7 and higher and answered that the Activity's implementation is very beneficial or very beneficial for municipalities by having a positive effect on the municipality budget.

Table 8

Activity's influence on municipality budget: Latvian municipality survey evaluation distribution

Evaluation (mark)	Number of municipalities	Proportion (%) from all municipalities	Proportion (%) of municipalities that answered	Cumulative proportion (%) from municipalities that responded
2	1	0.9	1.0	1.0
3	1	0.9	1.0	1.9
4	3	2.6	2.9	4.8
5	16	14.2	15.4	20.2
6	8	7.1	7.7	27.9
7	17	15.0	16.3	44.2
8	28	24.8	26.9	71.2
9	18	15.9	17.3	88.5
10	12	10.6	11.5	100.0
No answer	9	8.0	-	-
Total	113	100.0	100.0	-

Source: Municipality representative survey performed on November 2010, (n=116), author calculations.

We can conclude that municipal budgets benefits from the activity definitely exceed its expenses. Specifically the cancelled social benefit payments during the activity, economic benefit from externally financed acquisition of tools and inventory as well as infrastructure improvements have to be mentioned as benefits. There may also be secondary budget benefits that arising from the improvement in crime rates and at least temporary decrease of the unemployment level as well as consumption increases inside the territory of the municipality, and others.

88 out of 113 municipalities answered the question about additional expenses besides the funds provided the activity. Several municipalities that answered to the question pointed out that Activity's administrative costs are not being separated from the overall municipality's administrative costs. Eight municipalities answered that there are no significant expense that would be related to the administration of the Activity.

The results of the survey indicated that not all municipalities evaluated expenses quantitatively and not all municipalities could precisely separate their expenses into several



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positions. Table 9 summarises the qualitative information about municipality expenses that are related to the Activity – main expense positions as well as the number of municipalities that pointed out these expense positions.

Table 9

Qualitative evaluation of Activity's additional administrative expense of municipalities in Latvia as at October 2010

Expense position	Number of municipalities of surveyed 113 municipalities
Employer social tax	31
Acquisition of inventory and various materials that are necessary for work	40
Fuel, transportation cost	38
Office supplies	14
Premium to municipality staff for the administration of the project	7
Telecommunications	8
There have not been any additional expenses related with organisation of the Activity or they cannot be separated from total expenses	13

Source: Municipality representative survey in November 2010 (n-113), author calculations

Table 9 shows that the expense type that was indicated most often is acquisition of inventory and various materials to ensure a possibility for Activity's participant to do all the necessary work (plastic garbage bags, construction materials, tools, etc.) – this expense type was indicated by 40 municipalities. 38 municipalities indicated transportation and fuels costs. This expense arose due to the necessity to control the work of Activity's participants as well as transport Activity's participants to their work places, transport garbage from performed clean-up services, etc. Municipalities pointed out that the Activity's allocated financing for transportation is not sufficient as well as different expenses could not be attributed to the Activity, for example, fuel for work manager, fuel for transportation of documents to branches, fuel for lawn mowers and similar expenses.

31 municipalities indicated employer social security tax as an expense pointing out that the social security tax was paid for persons involved in the administration of the activity (for example, accountants involved in work organisation), specific bonuses for Project administration were indicated only by seven municipalities. 13 municipalities indicated that there have not been any additional costs related to the organisation of the Activity or they cannot be separated from total Activity's expense. Such answers can indicate that several municipalities were able to organise Activity's management and control without spending additionally their own resources as well as that there were no significant expenses that were related to the type of work but possibly survey respondents did not have all the information about Activity's expenses.

89 out of 113 municipalities (including Riga city council) quantitatively characterised their expenses. The average amount of expense during whole survey periods (until 30 November, 2010) was LVL 3139.38; expense median – LVL 1152.50 and mode – LVL 500.



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A significant difference between expense median and mode from the arithmetical average indicate that municipalities in the survey showed expenses that were significantly different in their size. A proof for that is also the large standard deviation – LVL 4516.38.

The relative assessment of municipality expenses was performed by analysing the following data. In year 2010 the average number of participants was 300, average costs per one participant were LVL 10.46. An average participant in the Activity during the year 2010 received approximately LVL 333.33. This number was derived by multiplying the stipend of the Activity of LVL 100 with the average term of participation, which in year 2010 was 100 days (3.33 month¹³). Hence, municipality expense is just 3.1% of this amount.

By summarising the municipality answers it is possible to derive the following conclusions:

- There are significant differences in municipality expenses – they can be partly explained with the different jobs that have to be performed in each municipality as well as lack of information about Activity's expenses, partly with the different financial resources of municipalities and thus also the different capabilities to increase financing for the activity from its own resources;
- The relative assessment of Activity's expenses in Latvia's municipalities in year 2010 indicate that the average municipality expenses are small compared to the benefit to the participants of the Activity, which shows the efficiency of the Activity from the perspective of municipality budget (previously it was shown that the Activity is effective also from the state budget perspective).

Overall, it should be emphasised that Activity related expense for different municipalities in year 2010 was very different. For example, in Alsunga district the municipality has not had any expense related to the implementation of the Activity. In addition, several municipalities mention that it has not been necessary to use financing from municipality budget. However, the yearly expense of another municipality has reached approximately LVL 6000.

Conclusions can further be made by different expense groups. The first expense group is administrative costs that include employee salaries, taxes and other administrative costs. The given expense depends on the number of participants involved in the Activity as well as the work load, and here it is rather difficult to derive an average municipality expense amount. It has to be taken into account that in municipality budgets rather often additional expenses arise that are related to unexpected bonuses for several employees, for example, to employment managers that oversee a large number of Activity's participants. In this case the only option to adequately reward the employment manager is to do it from municipality budget but within the Activity such expense are financed very minimally. Additionally, municipalities finance additional employees that have to be employed as part of the Activity from its own budget. As an example could be mentioned the work supervisors that are employed for the Activity if the number of trainees is large and employment manager cannot handle his tasks alone.

Another very important expense group is delivery of tools and materials. In municipalities' examples are mentioned various expense amounts during the year – from a couple hundred up to several thousand LVL. It should be taken into account that this expense position was planned to be covered from the Activity, thus the problems could arise from inefficient centralised procurement

¹³ Based on ESA data about Project participants as at November, 2010.



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organisation or neglectful attitude of Activity participants. As the main problem here are mentioned delayed procurements, acquisition of bad quality or inappropriate inventory, limited list of tools that can be purchased using the procurement procedure. As a result, to not delay the implementation of the Activity municipalities organise and purchase the necessary inventory themselves not waiting for the official delivery. Regarding the municipality comments the following can be mentioned: there is a lack of inventory; work supervisors refuse to accept more unemployed people because they lack inventory and equipment; additional repair expenses that arise from unprofessional use of tools and other equipment – such expenses are caused even by persons that have an appropriate qualification due to disregardful and sloppy attitude.

Third expense group is acquisition and depreciation of fixed assets. During the Activity a necessity has arisen to, for example, purchase a vehicle so that work supervisors could get to their work places.

The last expense group includes several positions. First subgroup is telecommunication and transportation. In the given municipality examples transportation costs are indicated from LVL 200 – LVL 2000 per year. A significant amount of expense goes for purchasing fuel for vehicles that transport employees. The surveyed people mention that road expenses should be covered also for the work supervisor. Additionally, the surveyed people have mentioned Office supply costs in several municipalities from LVL 75 to LVL 600 per year.

For example, according to the official information Riga city council overall finances the activity from its own budget for LVL 168 282. In addition to the mentioned additional financing also in many cases municipalities and non-governmental organisations use their own resources to fulfil the requirements of the Project – Office supplies, mechanics, communication, copying, human resource, etc.

The other significant expense subgroup beside the expense that arise during the Activity are not financed from its budget, are the expense that arise from inefficient fulfilment of several stages of the Activity. Here an example could be municipalities' indicated expenses for inventory and materials due to inefficient procurement procedures or administrative costs for delivering reports when it is not possible to do that electronically.

Conclusions

After summarising the analysis and assessing the Activity's influence on municipalities' budgets one can conclude that the activity is financially advantageous and positively affects municipality budget because it decreases the amount of social benefits during the Activity and provides financing for work inventory acquisition and fulfilment of tasks, which could not be affordable in other cases.

Municipality budget benefits from the Activity significantly exceeds its costs as well as ensures secondary budget income that come from decrease in the criminal situation and economic inactivity, consumer purchasing power increase in the municipality and others. An indication for that is the fact that during the Activity municipalities received LVL 6.1 million for financing non-stipend expenses, a possibility to save on GMI benefits, as well as the subjective evaluation of municipalities. Non-stipend expense division into salaries and subsidies as well as other Activity's financed non-stipend expenses (acquisition of inventory, health insurance, transportation costs, etc) overall in Latvia was approximately 40% for salaries and



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subsidies, but 60% for other activities. 60% resource usage for procurements, from which inventory will be usable also after the end of the Activity gives an evidence of potential sustainability effect. On a regional scale this position significantly differs, for example in the region around Riga salary and subsidy proportion in the non-stipend expenses was 47.06%, while in Riga region it was just 34.49%.

By comparing the financing allocated for this Activity with the financing for unemployment benefits it is possible to conclude that the Activity is efficient because for a proportionally slightly larger investment people are ensured with Temporary work places as well as inventory for municipalities is acquired, municipality infrastructure is improved, etc.

Overall, 3 575 people out of 69 610 Activity's participants when finishing participation in the Activity found a job (data from 30 November, 2010), from which 86 finished participation in the Activity in 2009. In November 2010 in Latvia overall were 161.81 thousand registered unemployed people, from which 39 thousand received social benefits.

The results of the analysis also allow providing several recommendations for the design of potentially similar programs in the future. First, program design should account for the specifics of different regions, including at the stage of planning funding flows. Ideally, inputs from regional governments should be sought. Second, accounting systems in local governments should be improved to track funds disbursed in similar programs. Finally, it is important to acknowledge that even as the immediate consequences of the crisis recede and unemployment rates decline, measures to stimulate participation in the labour force remain important for Latvia, in no small part due to demographic considerations. Future programs, could therefore shift their emphasis from simple income support to training and improving the skills of the labour force overall.

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WHY INDIVIDUALS TAKE PART IN SOCIAL MEDIA ACTIVITIES

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Abstract

This paper reports about groups, needs and social media. The combination of scientific research about human groups and human needs explains the success of social media. The paper describes the reasons to be a member in a group. The main focus is on social media groups and online networks. The theoretical background for this paper is the well proved concept of Maslows “Hierarchy of motivation” (Maslow, 1943). This psychological theory gives advice to understand human behaviour and to understand the reasons of individuals to join a group.

Influenced by the internet there are changes that have to be under consideration. Today the individuals have a new situation and opportunities. This creates a new perspective on social capital and to understand the theoretical background regarding the reason to join a group or network.

One particular aspect is the need of individuals. This gives a good overview about individual’s interest to be in a group and to join a group. The explanations are under the consideration of the needs of groups. There is a difference between individuals and group needs.

Further illustrate the paper the relation between groups and social media. The paper support further steps to create new knowledge and perspectives regarding social capital under the consideration of the motivational theory of Maslow. The issue is to illustrate the reason for individuals to join a group or network.

Introduction

This paper is about the psychological perspective of needs and motivation under the consideration of social capital. The reason of an individual to join a group is the basis to understand social media and the success of social media. The paper explains the needs and motivation to join a group mainly from the psychological perspective and gives a new focus on social capital. Satisfaction and expectation are two more important issues to join a group and both issues are in relation with needs. The theoretical psychological background is mainly given by Maslow (Maslow, 1943) with his paper “A theory of human motivation”. He develops in his paper a motivational theory. The theory explains individual’s behaviour and needs. The theoretical background for Maslows motivation theory is the content theory (Gambrel & Cianci, 2003). Social media platforms success is amazing and explainable. WebPages for example Facebook or LinkedIn have million of members. In addition provides the internet a lot of



different forms of social media e.g. forums, blogs or communities. All of them have mainly the same purpose. That members exchange their experience and knowledge about e.g. a product or the online community gives advise how to handle e.g. products.

Social capital is the network theory to describe reasons to join groups. Social capital satisfies the needs of the members of the group. That means that the need and social capital is a reason for individuals to join a group. Putnam is one advocate of social capital who describes in his papers the value of norms. His theory is that norms are social capital for the community. Of course there are disadvantages for groups to have norms or for individuals who are not member in the group (Putnam, 1995) (Siisiainen, 2003). Granovetter and Burt explain social capital with the structure of a network. Their focus is on the relationship between individuals. Maslow mentions in his paper the need to belong to a group (Granovetter, 1973) (Burt, 2002). Coleman describes social capital in his paper at page 95 as: “Three forms of social capital are examined: obligations and expectations, information channels and social norms” (Coleman, 1988).

Social capital fulfils needs of individuals. Maslow explains that the motivation for individuals are needs to change something or to do something. This paper concentrates on European western cultures and social platforms in the internet. The paper does not differ between the ages or gender of individuals.

The Different Needs of Individuals

Definition for needs: Needs are restricted set of basic physical and social needs that must be at least minimally fulfilled for a person to experience overall well being. Needs are satisfied on various degrees (Deci & Ryan, 2000) (Steverink & Lindenberg, 2006).

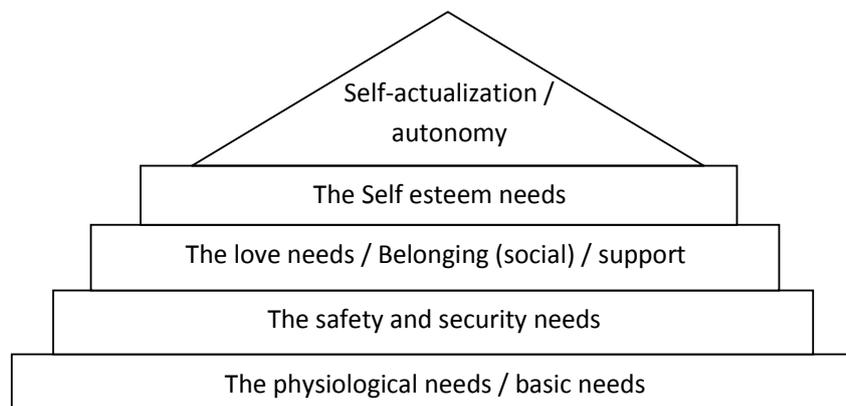


Figure 1. Maslow's hierarchy of needs (Hornsey & Jetten, 2004) (Maslow, 1943) (Villarca, 2011)

The individuals needs depend on the individual situation and context. Individuals are different and they have a different kind of motivation and needs (Steverink & Lindenberg, 2006). Maslow creates a hierarchy of needs but this hierarchy has to be adapting to the different cultural backgrounds and situation. For example in China is the hierarchy of needs different compared with the hierarchy of needs in Germany (Gambrel & Cianci, 2003) (Maslow, 1943).



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Another important point is that groups define their own priorities and satisfaction. That means that needs have different values for different groups (Cook, 1984).

The presented hierarchy of needs in this paper is the hierarchy of needs for an average European western individual. In addition the needs of individuals are increased and developed by other authors (Gambrel & Cianci, 2003) (Maslow, 1943) (Villarca, 2001). Needs are changing because cultural, technological or environmental changes influence the needs.

Maslow and other scientists explain in their papers that individuals have different level of needs. Figure one shows the hierarchy of needs, described as pyramid of needs. Maslow explains his motivation theory with the hierarchy of needs. The basic needs are the physiological needs. If this needs are in danger or not satisfied than individuals react immediately and heavily to satisfy this needs. The individual try to change the conditions under all possible circumstances. The situation is for the individual critical if the conditions do not change. The physiological needs are in relation to body needs that means e.g. somebody is thirsty or the environment is life threatening polluted. That needs are important to existence, individuals cannot existence for a long time if the physiological needs are not satisfied. Maslow mentions the physiological needs as the major motivation for individuals. These needs have to be satisfied or it is difficult to fulfil other needs. A general answer about physiological needs is difficult because physiological needs depend on the individual as already mentioned above. Costanza et al mention in their paper the physiological needs as subsistence for example. Physiological needs are clean air and essential food for example (Costanza et al., 2007). An example for a physiological need regarding the group is a team that delivers clean water to their members. The team member gets clean water because the group provides clean water that means the group has the ability to satisfy this needs (Cook, 1984) (Krishna, 1999).

If the physiological needs are satisfied then the next steps are the safety needs. Maslow mentions in his paper that the individuals look for a safe environment and protection. Individuals who live in an unsafe area have the needs to change this situation to have a safe and comfortable life for example. If the environment is dominated by danger the individuals are not satisfied and their motivation is to change the situation. They found a vigilance committee for example. The security needs can be rules, laws and protection of assets (Cook, 1984). One important point is the family. Individuals are keen that their family is safe and that any circumstances are secured e.g. illness or unexpected negative circumstances. The result of the identification with a group can be that members integrate in the group and that gives the group more power and security (Tajfel, 1982). The security need is one more reason to be member in a group. The group members protect each other and guarantee the security of their members. The group is a framework that protects their members against other individuals and negative circumstances.

The love needs or belonging to needs. Anyone needs support and affection. The objective of individuals is to have a relationship with other individuals. This individual needs somebody to share their intimacy and to trust somebody (Gambrel & Cianci, 2003). However this need is in relation to the social community. That means that individuals take care for each other. There is solidarity and individuals create a community or group (Cook, 1984). Social identity can be developed with a group membership. The individual has to be member in a group to have a positive well being. That is a positive effect and enjoyment to be member in a group (Borum, 2004) (Tay & Diener, 2011) (Sukoco & Wann-Yih, 2010). Later wrote Sukoco and Wann-Yih at page 616: “The desire to make relationship with others is a basic human need” (Sukoco & Wann-Yih, 2010).



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That means that individuals have to have member of a group and anyone needs a relationship to other individuals. The reverse is that individuals in social isolation have the need to have a relationship (Jahn, 2004) (Levine & Moreland, 1994) (Stark & Bainbridge, 1980). This explanation is fundamental to explain the interest of individuals to be member in a group.

The next step in Maslows hierarchy is esteem needs. This need means that individuals have the desire for reputation and prestige. Other authors mention the status of an individual in a group as a benefit. Individuals are keen to be useful and necessary for their community. Groups give individuals the opportunity to participate in decisions and to act meaningful for the community and their own interest. They have some control and influence over the group e.g. with an election of a leader. This satisfied and enrich the life of the individuals (Costanza et al., 2007) (Cook, 1984) (Hornsey & Jetten, 2004) (Tajfel, 1982). Steverink and Lindenberg mention in their paper that members of the society have the feeling of respect and reputable. That means the members of the society have the opportunity to reach the stage of esteem needs (Borum, 2004) (Steverink & Lindenberg, 2006). For an esteemed need is an exclusive club membership an example. Exclusive clubs have a high reputation and high entry requirements. Their members get similar reputation because the members fulfil the club requirements. That means who fulfil the club requirements is a person with a status and high prestige. Another esteemed need is the status. Individual's prestige and status is only recognizable in groups.

The need for self-actualization depends on the individual. If all further steps are satisfied than individuals have their own special desires. Important to know is that this special desires are not in relation with former needs. Spirituality is one self actualized need for example. Individuals identify in spirituality their satisfaction. A further part of this need is creativity and art. The highest level is freedom and to have the opportunity to fulfil any desire. To create the own leisure time is a typical self actualization need for example. This means that the individual do not have restrictions and the individual has different opportunities. There is not any situation without different opportunities (Cook, 1984). Already to be a member of a group can be a pleasant for an individual to reach their self actualized goals. Groups can help to satisfied self actualized needs. A specialized group gives the opportunity to create a special music event for example.

New literature mention that needs can be satisfied without satisfaction for a lower level of needs. Some author describes that all needs are important and that there do not exist a difference between the levels of needs (Villarca, 2011). Maslow mentions that the quality of the satisfaction has not to be fulfilled to 100% to reach a higher need. In general the needs have to be fulfilled as much as possible to get a higher satisfaction. The identification of unconscious needs is another point that influences individual's motivation (Maslow, 1943) (Tay & Diener, 2011). Satisfaction is only measureable by the individual. That means that the individual decided if the individual is satisfied or not. Another important focus is that the needs are not fixed. The satisfaction is influenced by the duration and sustainability (Cook, 1984) (Varlamis & Apostolakis, 2006). Individuals compare their situation with the situation of another individual. The result of the observation and comparability of the other individual influence the satisfaction and desires (Cook, 1984). One more difficulty is to measure satisfaction because the objective and subjective perspective can be different (Levine & Moreland, 1994).

Needs are important for social, psychological and physiological well being. All needs are necessary for a satisfied, well being and healthy life (Tay & Diener, 2011) (Steverink & Lindenberg, 2006).



The group perspective gives an opportunity for individuals to reach their goals. The individuals try to compensate or substitute not reachable targets. That means to reach another target they will activate resources, make investments and increase their efforts or they reach their objective with a group (Steuerink & Lindenberg, 2006).

The motivation depends on unsatisfied needs. Individuals have many different needs on different levels (Tay & Diener, 2011). The difficulty is to link one special behaviour with one special need. An individual is working for example. Their motivation is to earn money to buy food that is a physiological need. But the individual is not looking only for food, the individual looks in addition for prestige and status in his company. Prestige is in Maslow's hierarchy of needs an esteem need.

The process from needs to satisfaction

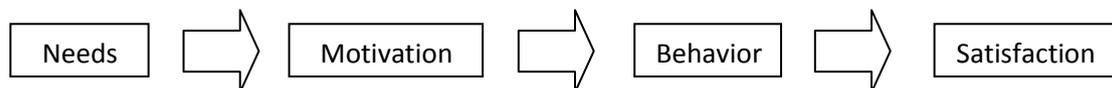


Figure 2. The process from a need to a satisfaction (Maslow, 1943)

The illustration describes the way from the needs to the satisfaction and shows that the behaviour and activities are controlled by needs. The motivation gives the direction for the individual, the behaviour is the executive to reach the objective and the objective is the satisfaction. That means that the need gives the reason to be a member in a group because individuals have to fulfil their needs and some of the needs can be only fulfilled in groups. Needs and motivation are recognized as energy to reach a goal or satisfaction or to fulfil a desire. As larger the needs and motivation as larger is the energy that the individual invest to reach the satisfaction. The same situation happens with groups and the investment to be member in a group (Sukoco & Wann-Yin, 2010). Social capital supports the individual to reach goals and to satisfy the individual.

Satisfaction, pleasure and well being is described for groups and individuals as happiness, utility, welfare for individuals or groups (Cook, 1984) (Reis & Collins, 2009).

Extrinsic and intrinsic motivation influences the needs of an individual. Further decides extrinsic and intrinsic motivation about a group membership of individuals (Cook, 1984). The decision to be member in a group depends on the group decision and the member decision.

Groups and Individuals Needs and Goals

Groups have their own needs and they can be different from the individual objective. The interesting point is that both, group and individual have different needs but maybe the same objective. The priority of the needs depends on the situation (Gambrel & Cianci, 2003) (Jahn, 2004). The quality of needs is different for groups and individuals. Both have their singular needs and desires but mainly they can fulfil their needs only in cooperation and satisfaction of group and individuals needs (Jahn, 2004).

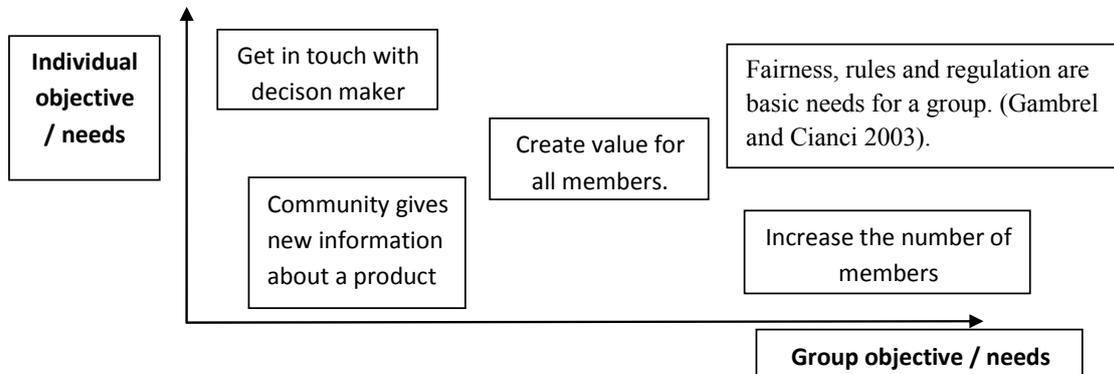


Figure 3. Groups and Individuals have different objective and needs

Individuals can be a caregiver and intimidates of a group or they can be a user of a group. That means individuals use the group for their individual objectives or they create an advantage for all group members because they help the group to reach the group objectives. The important point is that individual's objectives and group objectives can be the same or that group objectives can support the individuals objectives or contrary (Peterson, Park, & Seligman, 2005).

It is possible that the group needs and the individual needs are in a conflict (Cook, 1984). Some groups give their members an identity and a sustainable objective (Brito, Waldzus, Sekerdej, & Schubert, 2010). "Social organization is composed of interlocking relationships among individuals within a social network." (Peterson et al., 2005).

Many groups or communities give their members the opportunity to discuss solutions and to ask questions. Members of communities give support and solutions. Members support each other to get a higher prestige. They are more satisfied because they are aware that they give a great support to other members. They identify themselves with the group. That means the supporter gains recognition and the individual that take the support to get a solution. Both parties fulfil their needs. These increase their motivation and influence their behaviour for further tasks (Sukoco & Wann-Yih, 2010). This is the motivation for individuals to take part in a group. The exchange of their needs is an important issue for members of groups. Groups support the individual to satisfy their desires and needs (Jahn, 2004) (Sukoco & Wann-Yih, 2010).

Reasons to Be Member in a Group

First of all is the definition of a group important. Groups can be defined by their members and external observers. Secret groups would not publicities their group for example. Further have the group members to recognize that they are member in a group and they have to have the desire to be a member (Tajfel, 1982).

The scientific literature mentions different reasons to be member in a group. The paper mentioned already some reasons above. Illustration four gives an overview about needs for individuals to be a member in a group. As expected group and individuals needs are not very different and some needs are similar.



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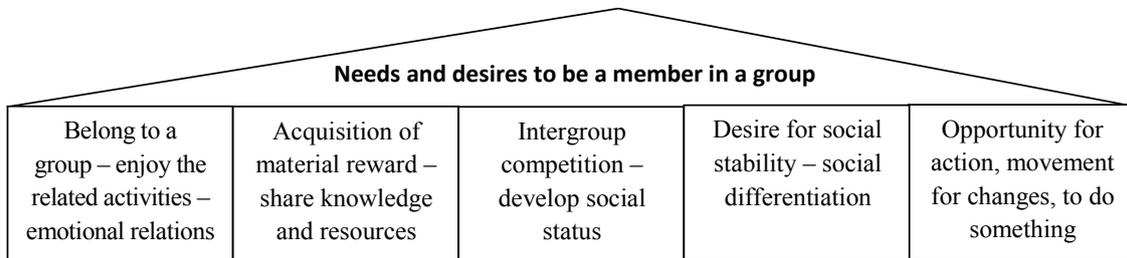


Figure 4. House of group needs (Brito et al., 2010) (Tajfel, 1982) (Sukoco & Wann-Yih, 2010)

Individuals in a group have a value and that is the reason to be a member in a group. The value for the individual is that the group gives certain selective benefits to their members. There are consequences and properties for group members for example. Both can be beneficial for group member (Borum, 2004) (Costanza et al., 2007) (Levine & Moreland, 1994) (Tajfel, 1982).

Furthermore is socialization a reason that individuals are members in a group. Parents introduce their children to other children, enrol their children in the kindergarten and introduce their children to the neighbourhood for example. That means that individuals are members in groups without their influence (Brito et al., 2010) (Helliwell & Putnam, 1999).

Emotions, cognitive context and social mechanisms are an important issue for individuals to be a member in a group. In addition the emotions, cognitive context and social mechanisms are important variables for individuals and groups. This variables influence heavily the result and satisfaction (Peterson et al., 2005).

Individuals are members of a group because with the group they have more power and influence. They have the opportunity to change and influence other individuals or decisions. Power and leadership is important for individuals and to fulfil their needs. The individuals reach power because they have regularly communication and interaction with other individuals. That is very often the advantage of a group against an individual. A group has more opportunities, resources and availability as an individual (Bargh, 2009). If Individuals recognize that they can achieve with their group their objectives than they are highly energized and they invest energy or values in the group (Sukoco & Wann-Yin, 2010).

Social Capital under the Consideration of Maslows Theory

Social capital and Maslows theory complement each another. Both theories explain the reason of individuals to join a group. Social capital has the perspective of the positive or negative value for the individual to join a group or network. The channel for information and resources between individuals is an important social capital. All stages of the Maslow pyramid needs this social capital to fulfil needs. The difference between the channels is the volume, value and kind of resource or information that is transferred. However to fulfil needs individuals have to cooperate. They need other individuals to reach their goals and to fulfil their needs. The basis for social capital is trust, obligations, reciprocity and sympathy between individuals. This



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points support the exchange of resources and information. The access to information and resources is the social capital.

The physiological and basic needs are the most important needs for Individuals. Individuals have more opportunities to fulfil their basic needs if they cooperate. Cooperation between individuals implies trust. Trust is important for social capital because without trust is social capital not possible. Many author mention trust as an important part of social capital (Coleman, 1988) (Lin, 2001) (Uphiff, 1999).

Serageldin and Grootaert explain in their paper at page 48 that “Uncoordinated or opportunistic behaviour by economic agents can also lead to market failure” (Serageldin & Grootaert, 1999). That means that individuals have to cooperate to fulfil their needs. In the book from Dasgupta and Serageldin are different examples about individuals who cooperate to fulfil their basic needs. Cooperation is a form of social capital to reach objectives and to fulfil needs (Dasgupta & Serageldin, 1999).

Safety and security needs are the next stage of Maslows pyramid. Putnam explains in his paper that norms support a community to be safe. The norms are given by the community. The norm helps the community to protect them against other individuals. Individuals feel safe if they have norms and rules. That supports them to find a decision and gives them an orientation. Norms fulfil the safety and security needs. The disadvantage of norms is that they can have a negative impact of non members of the community or that the norms barrier the members to develop or improve their community (R. Putnam, 1995) (Helliwell & Putnam, 1999).

Love needs and belonging to needs can be fulfilled by social capital. Many authors mention in their papers that people join a group because they like to have a relationship. The reason for the relationship is to get access to resources of other individuals and to get sympathy. The transfer of social capital needs the ability to transfer the social capital and the willingness to transfer the resources or information. That is the important point. An individual has to belong to a group to get access to social capital and the individuals need the sympathy from another individual to get social capital and the needed resources. However to belong to a group has great advantages for individuals. The transfer costs of information and resources is between group members less expensive and faster. That means that individuals of a network have a benefit against individuals who do not have a network. That explains the need to be a member of a group or belong to a group because the individual has advantages. The advantages depend on the perspective of the individual and on the situation. The disadvantage to be a member in a group is the barrier between individuals and resources outside of the group. Group decision can have a negative impact on the society or other communities. The love needs are deeply related with trust because only individuals who trust each other can exchange information or resources especially intimaie or secret information. (Coleman, 1988) (Rose, 1999) (Narayan & Pritchett, 1999)

The self esteem needs are described by different authors of the social capital theory. Individuals like to be part of a group to get access to resources. Social capital provides them with exclusive resources and fulfils the need. Especially prestige supports the member of the group to get attention of other individuals. The identification with the group is important for members because they have an advantage to be a member of a exclusive group. It can be that the membership of a group can have a negative impact and then the need is not anymore fulfilled. In that case the individual will leave the group and search for a new group which provides the



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expected social capital and resources. However the influence of other individuals and the structure of the group is one more described social capital that fulfils the esteem needs. It is possible to control and lead other individuals with the power of social capital. The contact to a decision maker is an important asset to reach a goal (Burt, 1997) (Dasgupta, 1999) (Lin, 2001).

The self actualization / autonomy needs are the highest stage of the pyramid of Maslow. Some of those needs can be only fulfilled in groups or relations. Relations are the basis for social capital. That means individuals need the relation and the response from another individual to fulfil the self actualization / autonomy needs. Another important point is the information channel. That support the individuals to share information and to identify new opportunities to self actualize themselves. However to present results to the community can be part of the self actualization or self esteem needs (Coleman, 1988) (Dasgupta, 1999) (Lin, 2001).

Social Media under the Consideration of Maslows Theory

There are different types of social media. However social media is anytime in relation to groups because the content of social media is created for different receiver and groups. The different groups use social media to satisfy their needs. Social media has the technological ability to create content for the physiological, security, belonging to, esteem and self-actualized needs. Satisfaction can be online or offline. The needs are overlapping and social media platforms satisfy different needs. Mainly social media platforms satisfy a combination of needs and individuals use the social media platforms to satisfy their needs. This makes social media platforms in the internet so successful because social media fulfil needs.

The physiological need in social media is mainly important information. The given information helps individuals to satisfy physiological needs. That means that individuals take this information to get further information about a product or situation. Those satisfy the individuals and fulfil their needs. These groups can be communities that support individuals in their daily life to satisfy physiological needs for example.

Security and protection needs are an important topic in social media. There are two kinds of possibility for that need in social Media. The one type is online and the other type is offline. There are groups that exchange information to protect their member offline. Individual warns their group with twitter about violent events or danger situation for example. Groups can protect their members online because they offer them a protected environment to share private information. Online communities share knowledge about a new developed product which is not officially introduces to the audience for example. That information has to be protected or individuals have damages. That needs can be fulfilled by social media and satisfy the members of groups on social media platforms.

The needs belonging to and love is a typical need for social media. There are different platforms like Facebook or LinkedIn that satisfied the need to belong to a group. These business models use this need to get members. The individuals trust and support each other. They share useful information and meet each other online to communicate. The group members trust each other and they have an intimacy.

One more reason to be a member in a group is esteem needs. This need is fulfilled by social media. There are millions of groups and communities about different interests. All social media groups have the ability for their members to share information and to support each other. These satisfied the members. Members in groups who are successful support other group members are



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more satisfied. They are more respected from the other group members. That means the different kind of tools in social media platforms provides the ability to gain prestige or status.

Self actualized needs under the consideration of social media. The new technology and abilities gives individuals the chance to create new things together. Individuals are members in a group because they develop with other member's new products, ideas or creations. There are product communities that helps user to find solutions for problems with new developed solutions.

Conclusion

Individuals use social capital to satisfy their needs. They join the group to get access to information and resources. That supports the social capital theory because the member of the group would not join the group if the group do not fulfil their needs. Maslows stages at the pyramid compared with social capital explains that social capital can fulfil needs. Social capital is a benefit for the individual and a reason to join a group. The needs are fulfilled with the support of the social capital.

Social media satisfy all kind of needs. Members of social media groups have the same needs like members of other groups. The advantage of social media groups is that the technological changes support the ability of the members and individuals. The exchange of information and resources is faster and easier. That gives social capital new opportunities and creates new needs. Social media fulfil needs of individuals.

However there are disadvantages and advantages for companies. Groups and individuals have different needs and objectives. The differences between group members can be extreme because the members have different interests. That depends on the numbers of members and the level of specialization.

For further research is of interest to identify the changes of social capital and the motivational theory under the aspect of the technological changes.

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THE IMPACT OF ELECTRONIC COMMUNICATION WITHIN ORGANIZATIONS' MEDIA ON MANAGERIAL LEADERSHIP BEHAVIOUR

**– Theoretical Analyses and Empirical Evidence:
Operationalisation / Indicalisation of Measured Variables –**

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Abstract

Nowadays big global enterprises with thousands of employees, all spread around the world, benefit of the new communication technology like virtual conferencing, chatting, emailing etc..

Real time communication is key success factor number one. This also enables to group the best people around the world in virtual teams, without any loss of private inconvenience, of any relocation. People are getting used to work in so called “virtual” teams, maybe never meet face to face, just using the new communication channels to interact and align.

This article gives an overview on the impact on the management style and the specialties in leading such virtual teams. It is based on a broad literature research from various areas of science e.g. management science, communication science and social science. The aim is only to give a correct indication but further in-depth studies would be necessary to prove interdependencies and statements made.

Introduction

Virtual team interactions are almost always assisted by some form of computer-mediated communication technology. Computer-mediated communication is different in many ways from traditional face-to-face communication, perhaps most significantly because the communication is usually asynchronous instead of synchronous. Temporal independence of communication changes the patterns of work, decision making, and understandings about the work and the relationships between the individuals involved in the work [1]. It is key to



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understand the basic principles of team dynamics even better than in common team interaction, as there is no face to face interaction as well for the team leader. It is key for the leader to identify even faster and more precise the tendencies in the virtual team than in normal teams, because personal “theses” of “what’s going on” could be proven immediately in a normal team, and corrective actions could be taken immediately as well – but not in a virtual team, situation is getting more complex.

Definitions

Team: Generically, a team is a group of individuals who interact interdependently and who are brought together or come together voluntarily to achieve certain outcomes or accomplish particular tasks. Some research claims that the use of teams increases capability, responsiveness, and flexibility within organizations [2] partly because synergies are created among team members who have different types of expertise, experience, or knowledge [3].

Computer mediated (asynchronous) communication (CM(A)C): CMAC is communication that allows many individuals to speak to many other individuals, 24/7, regardless of geography or time zone. CMAC is a specific genre of communication characterized by a generally recognized communicative purpose and with common aspects. Common CMAC attributes include that CMAC team members can access computer-mediated virtual sites devoted to their tasks or problems at their individual convenience, have access to read and study contributions made by others on these sites 24/7, and then make their own contributions when personally convenient. [4]

Leadership has been described as the “process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task [5]

Decision making: Decision making, team processes, and communication effectiveness are influenced by various organizational characteristics, including organizational structure, culture, information technology systems, and leadership style [6]. Communication, therefore, is embedded in social process [7] and is central to the organizing process [8].

Characteristics of face to face interaction following McGrath & Hollingshead [9]:

- All members present are at the same place at the same time.
- Only one person speaks at a time.
- Speakers often exercise some control over who speaks next.
- Speakers often exercise some control over whether interruptions are allowed.
- Members who are present share time unequally; those absent have no voice at all.
- The audience is usually everyone present and rarely those who are not present.
- The set of potential speakers is everyone present, but only those present.
- There is no anonymity, and so social, power, and status cues are obvious.
- Paralanguage such as nodding affirmatively or frowning is apparent to those paying attention.
- Immediate verbal and paralanguage feedback is possible.
- Enthusiasm or charisma can be conveyed.



Table 1

Comparing Asynchronous Online Discussion with Face to Face Discussions by Berry [10]

Differences between Asynchronous Online Discussions and Face-to-Face Discussions	
Asynchronous Online Discussion	Face-to-Face Discussion
Discussion is from one person to another, or one to many, but also many to many	Discussion is one to one, or one to many, but not many to many
Multiple discussions are under way at the same time, and participants are often expected to participate in several discussions at the same time	There can be only a single discussion under way at a given time in a conference room, and everyone is restricted to a single discussion at a time
Everyone is able to talk simultaneously, so no one is physically blocked, and all participants can be active at the same time	Only one person talks at any one time, and everyone else is blocked, so participants are in listening mode most of the time
The discussion can be democratic, with everyone equally participating and having a voice	The discussion tends to be dominated by a few, with many not having any voice at all (sometimes by choice)
There are few social and political or power cues and no body language	There are many social and political and power cues, with much body language
The discussion operates 24/7 within time frames that can be weeks long, and participants have freedom of choice as to when they participate	The discussion operates for a specific time frame that is rarely more than several hours long, at a specific place, and participants must be physically present to contribute
The discussion can be free of time and geographic space constraints	The discussion is constrained by specific time and geographic limitations
The discussion is archived, creating a permanent record of all discussion	The discussion is not archived, so there is rarely an accurate record of all discussion
Feedback is sometimes slow	Feedback can be instant

Substitution Effects

Mc Aulay [11] found out, that there are substitution effects, where CMC replaces significantly the non CMC communication channels. In this research work he compared:

CMC channels:

- Email;
- Net;
- Video;

and non CMC channels of communication:

- Face to Face;
- Telephone;
- Others.

Mc Aulay reflected these channels on 3 communication layers/dimensions within concrete situational aspects.



Table 2

Comparing substitution usage of CMC channels with non CMC/classic communication channel, by Mc Aulay [11]

	Electronic			Other		
	Email	Net	Video	Face-to-face	Telephone	Other
<i>Content reasons</i>						
To convey confidential, private or delicate information	9	1	0	75	15	0
To describe a complicated situation or proposal	29	3	2	53	13	0
To influence, persuade, or sell an idea	12	5	1	65	17	0
To express feelings or emotions	11	0	2	65	22	0
To keep someone informed	52	11	1	15	20	1
To follow up earlier communication	49	4	0	13	27	1
To share useful, wider information, not related to specific tasks	52	25	3	8	10	2
<i>Situation reasons</i>						
To respond to a straightforward telephone message	17	1	0	12	70	0
To communicate to someone close by	11	0	0	78	11	0
To communicate something complicated to someone far away	42	9	5	7	36	0
To use the communication medium you prefer	24	5	1	47	23	0
To communicate the same thing to many people	54	19	5	17	4	1
When working remotely, away from your office	38	8	2	6	47	0
<i>Symbolic reasons</i>						
When you want to be casual or informal	18	0	0	51	31	0
When you want to convey urgency	21	0	0	39	40	0
When you want to convey personal concern or interest	10	0	0	62	28	0
When you want to obtain an immediate response or action	12	0	0	49	38	0
When you want to show authority, status or position	28	1	2	51	17	0
When you want to show that your communication is official	53	1	1	26	9	11
Total	29	5	1	39	25	1

Table 2 shows significantly substitution through CMC communication in the dimension of “Content Reasons” esp. if pure information transfer is intended:

- Keep someone informed;
- To follow up earlier communication;
- To share useful, wider information, not related to specific tasks.

In the dimension of “Situation Reasons” the most significant substitution is seen in:

- To communicate sth. complicated to someone far away;
- To communicate to many people.



Finally in the dimension of “Symbolic reasons” the significant substitution is researched in only one aspect:

- When you want to show that your communication is official.

On the other hand, it is seen, that various other aspects researched and questioned have no relevant substitution effects driven by CMC although there is the technical opportunity to do.

Leadership Basics – Comparison of Virtual Team Structures and Internal Teams

One characteristic, as examined in the definitions section, is the fact of non face to face (or at least strongly reduced face to face) communication. Not only must the leader oversee the work of other team members, but as a member of the team the leader also sets the standards for collaboration and the expectations for how the team functions [13]. Wakefield and Leidner [14] propose a theory they call “Behavioral Complexity in Leadership” where they posit a portfolio of leadership roles or functions that allows a leader to react to varied demands encountered in team settings. Effective leaders draw from a repertoire of leadership roles as situations warrant, and these roles are relatively transparent to subordinates [14]. Effective leaders are also highly competent in perceiving the needs of their constituencies and altering their behaviors to meet those needs [15]. One of the major findings of Westfield and Leidner was, that the better a leader performs in internal leadership, the better will the leader perform in a virtual environment [14]. Based on the model described in Figure 1 [16] it means, that all dimensions and roles of leadership applying to common internal leaders will be found and are essential for leaders of virtual teams as well.

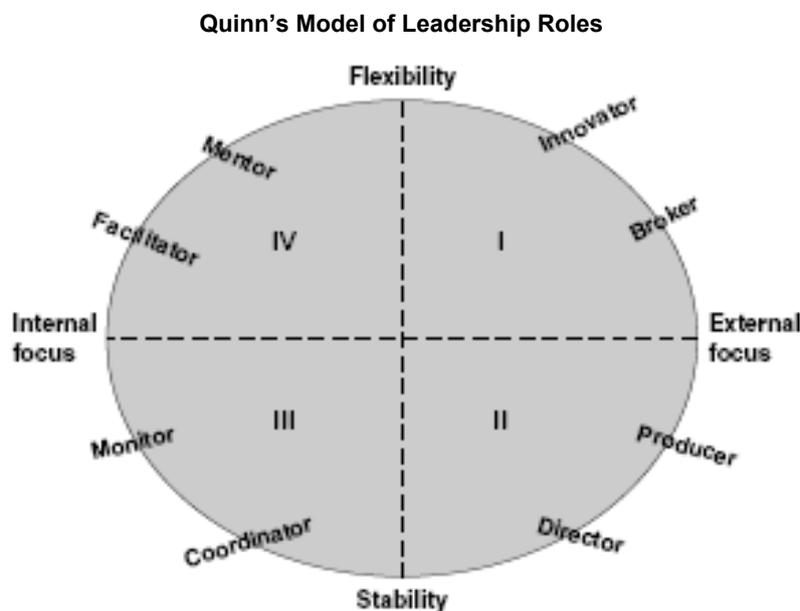


Figure 1. Defined roles of teamleaders to effectively respond on conflict situations derived Quinn's Framework [16]



Team Members – a Key Success Factor

Another key success factor for virtual or CMC team cooperation are the team members. Although any member of a team might initiate an ICT (Information and Communication Technology) adaptation, formally designated project team leaders, if present, are in the position of responsibility for noticing interaction problems related to ICT usage and making improvements happen, particularly when ineffective ICT use is leading to a drop in team productivity [17].

The final trigger involved team members' ICT knowledge or lack thereof and consequent use or disuse of tools. The inadequacy of ICT knowledge, skills, and abilities represents the degree to which team members know how to use various ICTs and their preferences in using the ICTs available. Two sub dimensions indicated this trigger:

- (1) a tool was workable but not effective in the way members were understanding it or using it,
- (2) evidence that team members lacked knowledge or experience to use a tool.

In the first theme, team members were found failing to follow critical ICT usage procedures due to ignorance, apathy, or inability, resulting in major problems [17]. Here it is proposed that the team leader also has to force corrective actions and first showing the team which errors occurred, what consequences were triggered and why this led to problems. Also a strict proposal for “ideal” behavior must be shown to the team members also control mechanisms for early warning must be implemented by the team leader an accepted by team members.

For example, a leader or researcher encountering scenarios dominated by external interference might apply work analyzing organizational context and task structure such as:

- strategic alignment [18],
- project escalation [19],
- outsourcing and interorganizational arrangements [20],
- boundary spanning [21].

To understand a context characterized by internal constraints (technology–task–team fits), one can look to work on:

- demographic/cultural diversity[22];
- setting up virtual team [23],
- understanding dispersion and team size [24],
- power and status impacts [25],
- cultural issues [26],
- general project design and management [27].

Thomas [17] examines therefore the five factors model resulting of (1) external constraint, (2) internal constraint, (3) information and communication technology (ICT) inadequacy, (4) ICT knowledge, skills, and abilities inadequacy, and (5) trust and relationship. The aim of his work is to give a diagnostic tool for examining real, multitrigger team technology adaptation contexts, enabling better leader training and evaluation as well as improved research on team technology adaptation and interventions and a better understanding of the relationship between the technology structure strength indicators in adaptive structuration theory and the need for team technology adaptation intervention [17].



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Limitations in Current Models

Broad literature research shows that there is no model in place covering this multi channel communication from multi sources at the same time and especially the reverse impact on the mid management.

It could be claimed, that known “matrix organization models” cover this aspect. This has to be rejected clearly. In matrix organization the employee is clearly dedicated to a strictly defined number of tasks (e.g. projects, maintenance etc.) where the management is also dedicated to.

But with CMC real-time communication about various and several different topics is ad hoc in place, not controlled by mid managers – but relevant and binding for staff members.

The mid-managers do have less control over the communication and the tasks coming from outside. This decision power is unintentionally shifted to the employee, which forces them more than in the past to prioritize ad hoc on their own and reduces the power of information on the mid managers side – which makes a changes in management and a different leadership style necessary.

Introducing a New Model – Covering the Lack of Leadership and the Changing Communication Aspects

Star-Model by Stefan Schwerd – Showing the Increasing Lack of Management Influence

The “Star-Model” reflects the various dimensions and layers of CMC communication. Departments are shown as “triangles” in one color. Whereas each peak is reflecting one regional organization pyramid – basically well known from old hierarchical models. Difference is, that the regional factor is also reflected. Each angle reflects here the different regional (or country/site) head per function, each triangle reflects a function – so, the number of angles is for illustration reasons chosen as 3 – which means here 3 different regions/sites. Also the number of triangle is for illustration reasons chosen as 4 – which reflect only four functions within the enterprise – this also could be adapted to several.

Definition:

- Function (functional Unit (FU)) = Color coded polygon with n edges
- n (organizational Unit (OU)) = number of regional different organizational Units (Country organizations e.g. LV, DE, US)
- Inter-selection of polygons = cross functions / cross functional interference
- Hierarchical setup = Peak of the n-Polygon = FUn/BU_n Head, further OU Layers below – staff positions/cross functions including
- Headquarters functions = could be reflected a separate n-Polygon

Limitation of the model:

Hierarchical interrelation Between HQ and BUs is not reflected hierarchical. As this model focuses on the management needs based on communications streams between staff members and the organization as a whole – special modeling of this aspect is not necessary, as there is no differentiation from employee and mid managers point of view – the model is explicitly not a “organizational” model.



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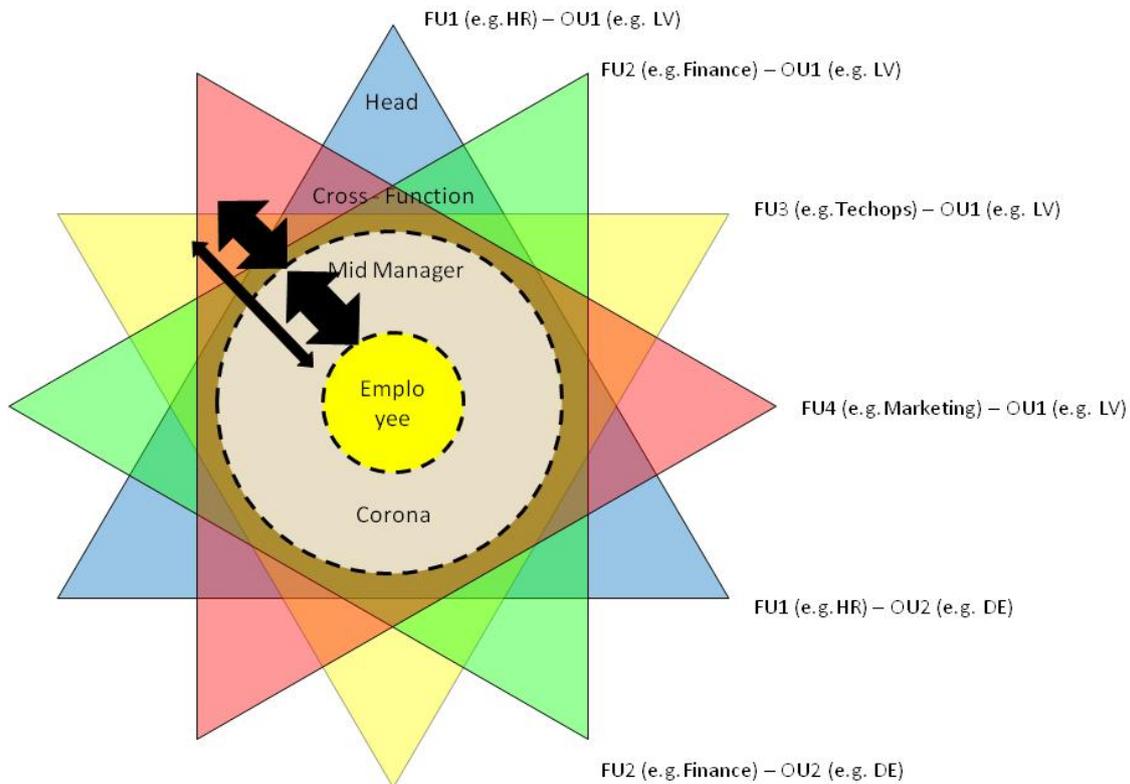


Figure 2. Star Model – “As was” communication in Global Enterprises with multiple organizational Units (OUs) and Functional Units (FUs)

The Star Model as in Figure 2 shows the multiple involvement of employees (knowledge workers only) which are part of various processes where they formally (as by conservative organizational theories) are not belonging to. In former times, the mid manager acts as a “filter” – function for the staff members, incoming information was adopted for better understanding and relevance. Priority and necessary actions were clearly communicated by mid managers.

Also the outside communication of a department was mostly done by mid managers only. Needs and results were also adopted to senior managements knowledge, information was polished and shaped, also for long-term strategy of mid managers. The mid managers could be compared with the “corona” of the sun – very bright shining and the only part which could be seen of a department (where as the nuclear chain reaction is which feeds the corona is going on in the inner part of the department).

Only a few communications was really going directly from employee to senior executives e.g. like Q&A after a “End year result presentation” – but not during and according “day to day” business.

As a matter of fact, big enterprises introduce multiple standard processes and give responsibility to the employees. Supported mostly by IT-systems were all employees are asked to precisely use on their own. Various examples from budgeting, cost controlling up to “do it your-



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self” bookings in an ERP systems could be referred. A simple example, the booking of travel expenses, illustrates the change in communication and decision making very drastically:

E.g. employees are forced to do their travel booking item by item on their own in an adequate system. Various choices could be made – with various consequences. Automatic calculations are made etc. like reduction of allowance because of claimed “breakfast”. Which also leads to wrong taxations. This pops up in controlling department later. Now, a communication tray between Controlling and the employee about the real circumstances starts – the employee bypasses his direct manager, because he/she could anyway not help or neither is interested in. If things like this happens more often (wrong travel expenses) this becomes a “pattern” for people in controlling, who claim that the department and the head of department were this happens is unserious and not reliable even if this is the R&D department, where mostly no one knows anything about financial details...

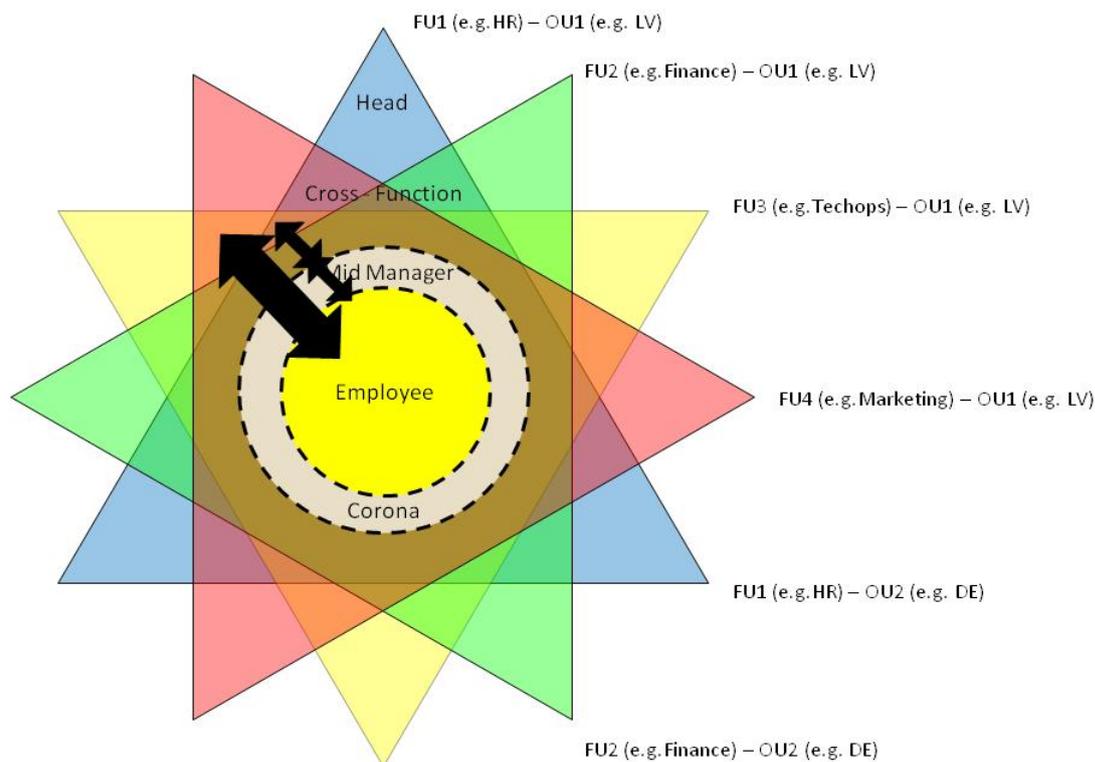


Figure 3. Star Model –“As is” communication in Global Enterprises with multiple organizational Units (OUs) and Functional Units (FUs)

Generically this is reflected in the Star Model now (Figure 2). The filter function decreases (“melting” of the corona) – communication and information passes the departmental head without “polishing” and shaping.

This leads to a loss of control for the mid manager there. Management and Leadership behavior must be adopted immediately – otherwise this could lead to an irreversible and long



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lasting reputational loss of the appropriate department and of the manager personally.

The aim of future investigation here is to statistically prove this observation with solid figures first, and develop a “role model” for mid managers which changes are necessary to be made in their management style. Finally also prove with an adequate clinic of candidates this concept.

Outlook:

Unproven observations lead to the conclusion, that less formal controlling mechanisms will be successful counter actions than more long lasting the improvement of certain leadership (not management [28]) skills is highly required, e.g. improve “sensing” and personal visioning.

On top virtual team leaders need to have explicitly excellent communication skills, guiding, directing and adjusting communication within the virtual team.

The communication itself needs to be explicitly on separate defined task for cooperation for various situations in the virtual team – and must be followed and agreed by all team members.

As a consequence this needs separately to be trained to all team members. The social processes need to be actively visualized, the awareness of this needs to be kept on a very high level.

Outer factors (e.g. Senior Management, 3rd party support and other teams) of the team need to be as well made aware of the special requirements that apply to the virtual team.

The aim of the authors ongoing research work is, resulting on the shown “state of the arte” research results, to further provide a general management communication model proven by a broad clinic.

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DEMANDS FOR IMPROVING MANAGEMENT EDUCATION IN BELARUS

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Keywords: management education, curriculum, managerial competences, socially responsible employee

Abstract

The article discusses the state of management education in Belarus and ways to improve it. Although a number of Belarusian universities train qualified managers and economists, management education is separated from real life because home graduates have good theoretical knowledge but poor competences in managing an economic entity. The first demand is to avoid the disbalance of the curricula of some majors which don't include the course of Management that may cause specialists' poor competences. The other demand is a need to train socially responsible employees. Social responsibility seems their essential quality as it meets the demands of socially responsible business to shorten the time and cost of professional socialization and avoid egocentrism of contemporary student youth resulted from the impact of globalization processes.

Improving management education in Belarus needs a number of steps to undertake, among them are working out new educational standards oriented to provide a union of theoretical knowledge and developed managerial competences, and perfecting the curricula of training economists and managers by including some actual courses such as Corporate Social Responsibility as it was done by Russia, Ukraine and other CIS countries etc.

Introduction

In Belarus managers have been trained since the times of the Soviet Union when the Highest Party School enrolled people who had got higher education and work experience to train them as specialists in state governance. Today a number of higher educational establishments of sovereign Belarus continue training specialists in the majors "Public administration", "Public administration and economy" with the qualification "economist-manager" and "Public administration and law" with the qualification "lawyer". The major "Economy and management at the enterprise" with the qualification "economist-manager" still remains the most numerous one. The license to train specialists in the area was obtained, alongside with Belarus State Economic University – a leading higher educational institution in economic education, by various institutions of Belarus, among them are technical institutions such as Belarus National Technical University, Belarus State Agrarian Technical University etc.



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The experience of training specialists with the qualification “manager” or “manager-economist” is not long – since late 1990s when a number of leading universities opened training of managers on the request of home business-community and state in general. The first university that in 1997 started training managers for tourism was Belarus State University; in mid-2000s it was joined by other higher educational institutions that enrolled first applicants in the major “Management”.

The realities of modern economy under an informative society actualized a demand for training managers in its other branches. Today the National Classifier of the Republic of Belarus “Majors and specializations” (NCRB 011-2009) includes 8 directions of the major 1-26 02 02 Management with specializations: 1-26 02 02-01 Management (finance and investment), 1-26 02 02-02 Management (socio-administrative), 1-26 02 02-03 Management (production), 1-26 02 02-04 Management (real estate), 1-26 02 02-06 Management (international tourism), 1-26 02 02-07 Management (information) и 1-26 02 02-08 Management (innovation), the qualification is that of “manager-economist” [1, p. 121-122].

In 2011 12 state and 2 private institutions of higher learning enrolled applicants for training specialists in various directions and specializations of the major “Management”, first degree [2]. Today more than a thousand students of the given profile study at them. Before applying to universities school leavers should pass a vocational and psychological interview that must exclude casual people from getting into the category of managers.

The list of institutions of higher learning that train specialists in management, first degree is given in Table 1.

It should be noted that managers’ retraining and qualification improvement is also performed in Belarus. In particular, the BSU Institute of Continuous Education opened retraining of the specialists in the major 1-26 04 01 “Management of innovative processes”, a number of educational establishments organized short-term courses aimed at improving qualification of the specialists in innovation management.

Besides, there is a constant interest in the MBA programs in Belarus. Today there are a lot of specialists working for the real sector of economy who have got an MBA degree resulted from their post-graduate education in foreign business-schools or the BSU Institute of Business Technologies (in English). Moreover, some home companies and banks (“Technobank” and others) define the MA (Economy) degree as a term for their employees’ promotion.

Close attention to the issues of training managers and managers-economists is understandable because management is a key chain at solving a lot of problems of social and economic development under complex conditions. Competent management makes the crisis phenomena softer, contributes to financial stabilization, serves to increase competitiveness, consciously affects the update of technologies, and motivates investments and innovations.

Despite the fact that Belarusian universities can train highly qualified managers-economists as they have got developed educational programs and teaching staff, the latest economic crisis has shown that training of specialists in managing economic entities doesn’t devoid of shortcomings. The crisis did not only substitute the economy under attack but identified the problems in training managers of a new type. The main problem is detachment of education from real life. There are a lot of examples when employers complain that graduates have good theoretical knowledge but poor competences in managing an economic entity. In particular, the chairman of Minsk Capital Union of Entrepreneurs and Employers V. Karyagin



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notes that business-education in Belarus is too far from practice. He is echoed by Zh. Grinuyk, director of the Centre of System Business Technologies who considers that the high level of training specialists rather warns than solves the problems in the short-term [3].

Table 1

List of Belarusian institutions of higher learning that train specialists in management, first degree

№	Institutions of higher learning	Major / specialization (direction)
1.	State institution "Academy of Management at the President of the Republic of Belarus" (AM)	1-26 02 02-07 Management (information)
2.	State institution "Belarus State University" (BSU) BSU Institute of Business and Technology Management BSU State Institute of Management and Social Technologies	1-26 02 02-03 Management (production) 1-26 02 02-08 Management (innovation) 1-26 02 02-07 Management (information) 1-26 02 02-01 Management (finance and investment) 1-26 02 02-02 02 Personnel management 1-26 02 02-04 Management (real estate)
3.	State institution "Belarus State Economic University" (BSEU)	1-26 02 02-08 Management (innovation)
4.	State institution "Belarus National Technical University" (BNTU)	1-26 02 02-08 Management (innovation)
5.	State institution "Belarus State Technological University" (BSTU)	1-26 02 02-03 01 Management in chemical industry 1-26 02 02-03 03 Management in forest complex 1-26 02 02-04 Management (real estate)
6.	State institution "Belarus State Agrarian Technical University" (BSATU)	1-26 02-02 Management
7.	State institution "Vitebsk State Technological University" (VSTU)	1-26 02-02 Management
8.	State institution "Polotsk State University" (PSU)	1-26 02-02 Management
9.	State institution "Gomel State University" (GSU)	1-26 02 02-01 Management (finance and investment) 1-26 02 02-03 06 Management in machine-building and instrument-making
10.	State institution "Belarus Trade and Economics University of Consumer Cooperatives" (BTEUCC)	1-26 02 02-02 02 Personnel management 1-26 02 02-08 Management (innovation) 1-26 02 02-07 Management (information)
11.	State institution "Grodno State University" (GrSU)	1-26 02-02 Management
12.	Institution of Belarus Trade Union Federation "International Institute of Trade and Social Relations" «IITSR»	1-26 02 02-01 Management (finance and investment) 1-26 02 02-02 02 Personnel management 1-26 02 02-03 Management (production)
13.	Private institution "Minsk Institute of Management" (MIM)	1-26 02 02-07 Management (information)
14.	Private Institute of Management and Entrepreneurship (PIME)	1-26 02 02-02 02 Personnel management



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The aim of the article is to analyze the state of management education in Belarus and discuss the ways to increase its quality.

Main Results

Education in general assumes the consistent formation of such characteristics of a specialist that both determine effectiveness and quality of his professional activities under definite conditions of development and reflect the country's cultural needs. We do not mean only knowledge and skills but culture, developed creative abilities, the potential of self-development, moral qualities and the feeling of social responsibility. In other words, education assumes the formation of the whole complex of the personality's characteristics that turn his professional activities into the public good.

There is no doubt that it is high school that makes the grounds for profession and professional mentality. First, establishments of higher learning provide system knowledge in the professional area, humanitarian preparation being not forgotten, either. Second, they do not only provide knowledge but foster a specialist's personality. Third, the time factor of 4-5 years of study triggers the effect of immersion in the whole amount of professional issues that contributes to the formation of attitudes and professional mentality of a certain type.

Today the Belarusian institutions of higher learning that provide management education are intended to form and assert a new presentation about a manager-economist. But it is not always implemented that can be explained by a number of reasons. One of them is the "insufficient mass of professionalism" (the term was introduced by A.M. Bikineeva)¹ resulted from a set of problems in management education, and quality of the teaching staff potential is problem number one. The teaching corps is mainly made up of the university teachers who have got the experience of training specialists for planned economy and not always possessed the techniques of teaching under market competitiveness. The given problem is sharp for economic universities but it is sharper for technical universities that are licensed to train specialists in managing an economic entity. At technical universities it is manifested in the lack of teachers with economic education who are to deal economic and specialized subjects (such as Management, Marketing, Financial management, Advertising, PR-relations etc.). These subjects are often delivered by teachers with technical education who cannot but bring technical preoccupation into interpretation of economic issues, excluding humanitarian filling from economics. Besides, economic departments may be headed by candidates and doctors of technical sciences.

But this problem should be raised on a wider scale. Not a single economic university trains engineers, chemists or technologists while technical universities have been supplying the labor market with specialists of the economic profile for some years. Not diminishing the merits of technical education we should make up our minds to assess if home technical establishments

¹ It should be mentioned that the "insufficient mass of professionalism" is peculiar for management education in the Russian Federation, too. In particular, A.M. Bikineeva, professor of TISBI University of Management notes that there should be accumulated some "mass of professionalism" to trigger cardinal changes in management, i.e. there should be obtained such a unity of factors of effectiveness and management quality that causes sharp changes in development processes [4].



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can provide a qualitative training of managers that corresponds to the contemporary socio-economic realities in Belarus? The question is not idle. The point is that the Educational Standard of the Republic of Belarus of the major 1-26 02 02 Management (in directions) introduced on 12 August 2010 (as well as the 2007 one) determines a number of demands to the staff and the basic ones are those of higher education corresponding to the profile of delivered subjects and a corresponding scientific qualification (degree, title) [5, p. 57].

Creating a corps of teachers who are oriented to work under today's complex terms of functioning for home educational institutions of the economic profile is an actual issue. There are only two universities in Belarus, namely Belarus State University and Belarus State Economic University that train specialists with the qualification "teacher of economic subjects". Every year they graduate up to 70 teachers of economic subjects that is, no doubt, a scanty amount taking into consideration the fact that some of them do not necessarily start their careers as teachers. As a rule, teachers are economists who obtain economic knowledge but are not competent to translate it to the generations of future economists and managers. Learning methods of teaching economic subjects, practical skills of communication at the courses of qualification improvement as it is practiced at the BSEU does not solve the problem. The reasons for it are as follows. A young teacher, yesterday's post-graduate, should combine his further studies with his teaching activities that mean preparation for studies with students. As the teaching load of assistants is rather high – up to 900 hours a year, he is not able to attend all classes of the courses. Two lacks – those of practical experience and methods of teaching – decrease the effectiveness of classes and quality of training specialists; moreover, they result in molding students' unequal, if not to say disapproving, attitude to a young teacher who, as they think, knows as much they do. Not every young teacher possesses natural ability or charisma to carry students-maximalists with learning some boring, in their minds, subjects. The 2011 poll of future managers carried out by the BSEU Faculty of management has proved that the problem does exist.

Creation of qualitative teaching potential for management education is considered actual for another reason. It is teachers who both gain goals and objectives of professional activities and demands for the level of training of future managers which are determined by the Educational Standard of the major "Management". The given Standard developed by the experts of the Academy of Management at the President of the Republic of Belarus and Belarus State Technological University includes the curriculum due to a 4- and a 5-year educational program. The curriculum has a set of subjects in cycles elaborated both due to the national standards and with regards for credits if the Republic of Belarus should join the Bologna process². It is saved from a number of shortcomings which are characteristic of the 2008 curriculum of the major "Public administration" worked out by the Academy of Management at the President of the Republic of Belarus and considered a must for the other Belarusian universities training specialists in the area. One of the shortcomings is lack of the subject of Management creating future managers' understanding of a profession. Without basic knowledge in management students will encounter difficulties in learning other managerial subjects such as "Strategic management", "Crisis management", "Organizational management" and the like.

² In November 2011 the Ministry of Education of the Republic of Belarus applied the documents to join the Bologna process.



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At the same time it is mainly theory that future managers and economists study for 4-5 years. That's why, V. Karyagin, the chairman of Minsk Capital Union of Entrepreneurs and Employers, mentions that graduates are not eagerly employed by home employers because the latter have to spend too much time and efforts either to complete their study or retrain them. He suggests an argument to confirm the theoretical nature of training specialists of the economic profile: in summer 2011 a dozen students were doing their practical work at the Union headed by him. As their supervisor V. Karyagin observed that future managers did not acquire the simple communicative skills, they did not know structure of entrepreneurship and did not read the economic press etc. [3]. But he didn't name the university that had sent its students to do their practical work.

Indeed, the issues of acquiring practical managerial skills at the time of students' practical work have always been actual due to some objective and subjective factors blocking effective learning of such skills. Trying to get rid of these obstacles the republican economic universities have lately come to a closer cooperation with employers and met their practice of training specialists for their own needs. For example, opened stock companies "OMA", "Alyutech" and "Minsk Transitional Bank", foreign company "Autohaus Atlant-M" (Folkswagen) and others have created educational centers – a sort of a corporation university where best senior students are selected to study. The selection terms and requirements for studies are very tough: if a student misses 4 classes for the reason considered as not important by the staff, he/she is expelled. Within a period from 12 to 18 months students get a deeper theoretic knowledge in some specialized subjects and acquire professional competences necessary to effectively perform duties at a definite enterprise or company. After graduating they are suggested a job in the company – its headquarters or regional divisions.

The Educational Standard of the major "Management" describes precisely the specialist's qualification profile with sets of academic, professional and socio-personal competences. If the academic and professional competences are numerous being detailed due to the spheres of activities, socio-personal competences are not notable for that kind. No doubt that managers should acquire the profound up-to-dated knowledge in economics, sociology, law, psychology, they should be able to use information technologies to find the needed data in proper time and solve problems. Not less important for managers is to possess the feeling of high citizenship and patriotism, abilities to make effective interpersonal communication, criticize and be self-critical, they should lead a healthy life etc. But today's managers should also possess social responsibility – both quality and competence that enables to make decisions which reflect the interests of an individual and society. We regret to say that a typical curriculum of various directions of the major "Management" does not contain the subjects "Ethics" or "Business ethics" that can help future managers-economists to form the given competence. Some can argue that ethic issues of managing a business can be considered within the other subjects such as "Organizational management" or "Sociology of management". But the curriculum developers preferred them to the subject "Psychology of management". Moreover, the issues of corporate social responsibility (CSR) and, correspondingly, of those who manage a business are still new in Belarus: only some enthusiasts are learning and promoting the phenomenon, so it is hardly expected that the teaching corps should include the given issues into their courses. In 2010-2011 academic year Belarus State University invited an expert from Belarus State Economic University to deliver the course "Social responsibility of business" as an option for the students



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majoring in sociology. But the BSEU itself has not yet considered by now the possibility of including the given course into the curriculum of future managers and economists.

Socially responsible employees for economic sector are needed in any modern society, no matter whether its economy is under rise or recession. But under recession training specialists capable to make socially responsible decisions which may affect destinies of thousands of people and even that of the whole society is becoming as actual as it has never been. It also meets the demands of social responsibility of economic entities which is, despite being new, getting extended in the Belarusian business community. Belarusian companies and enterprises are actively developing the international market where socially responsible business is a norm; hence their practice should meet its CSR standards.

In its turn, a socially responsible company needs socially responsible personnel. There are some reasons to explain why employees' social responsibility is so much required by business nowadays. The first one is to meet the demands of socially responsible business.

Second, the company can foster the personality of a needed employee within the framework of its own corporate culture. But it hires the individual who has already passed some stages of socialization, professional ones among them. Re-socialization is long and always costly that's why the process of molding the required qualities should be started much earlier.

Third, a paradoxical situation has arisen in the CIS countries. On the one hand, globalization has resulted in widening the scope of individual freedom and initiative but on the other, it has led to disseminating individualistic attitudes. Today's crisis in the system of values was brought about by a large-scale egocentrism when a person tries to satisfy his own needs, ignoring the interests of other members in the community. Egocentrism is dangerous as it entails losing the value of social responsibility. As people are members of a certain organization, the loss of this value by its personnel cannot but entail its loss by the organization itself. The result is known: production of goods with low quality, excessive pricing, non-payments, irresponsible advertising etc.

The CIS sociologists sound the alarm that social indifference, inability or reluctance to take responsibility is peculiar for the young. Belarus is not an exception. For example, the 2010 poll carried out among leavers of Minsk lyceum 1 showed great changes in their values. The future Belarusian elite ranked personal growth, satisfaction and interpersonal communication as top-three; service to people was ranked under 14; social responsibility was not mentioned at all [6, p. 4].

The situation is peculiar for university students, too. Molding social responsibility of future specialists especially for economic sphere does not need any long explanation because very soon today's students will occupy leading positions in business, politics, education or science and their contribution to social development will be equal to their social and educational potential formed during their student years. It is the reason why the Belarusian society starts to recognize the need to train specialists who are both professionally and morally ready to fulfill their professional duties. It only means that economic educational institutions should train managers and economists with developed social responsibility as an integral quality that determines their behavior and organization of their professional activities.

The need to train specialists of a new type is proved by the data of the 2008 poll as part of the research project 4-2007Б "Formation of future employees' social responsibility in the



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context of Belarusian society's sustainable development" carried out by Belarus State Economic University among the representatives of the Belarusian economic entities. They show that Belarusian existing employers require an employee who possesses social responsibility as an obtained level of consciousness. On the one hand, social responsibility determines the employee's actions as correspondent to the norms of the society and a performed social role. On the other one, it suggests both the employee's responsibility to the society as fulfillment of the norms and rules accepted in this society and responsibility for the results and consequences of his own activities.

There are some impressive results of the poll. In particular, responsibility is seen as a must among an employee's qualities. Belarusian employers-respondents believe that an employee should possess the following types of responsibility: responsibility for assignments – 62%, as performance of norms and rules accepted in the organization – 38%, other types (legal, administrative etc) – 34%, as a moral duty to the society (performance of social norms and rules accepted in the society) – 29%. But 7% respondents consider that the staff may be required to perform the norms and rules accepted in the organization even if they differ from those accepted in the society.

We compared the data obtained in other sub-samples and revealed the level where the moral and ethic norms were broken. It's the level of middle managers who interpret the values of social responsibility set at the expert level by owners or top-managers. 12% functional and line managers consider it possible not to follow the norms and standards accepted in the society if they prevent from achieving the organizational goals [7]. The obtained data are indicative of the weak points in training managers. One of them is the decreased significance of the moral and ethic component in behavior of the managerial personnel. It may sound some alarm because such people exercise operational management of the enterprise's production divisions and units today but they may be at the head of the whole enterprise tomorrow. This is the cause to ponder over which values dominate in such companies and come back again to the curriculum of the major "Management" that has no place for ethical subjects.

Conclusions

Increasing quality of training managers and level of their competence, obtaining a harmonious unity of management education and practice are long-term objectives. Though their realization takes time, some steps to accelerate the process can be undertaken even now.

First, as the 2010 Educational Standard of the major "Management" in general does not rouse censure, however some amendments into the curricula of training economists and managers-economists should be introduced. We believe that these amendments will contribute to increase the quality of management education with regard to students' deeper understanding and up-to-dated interpretation of the actual issues in managing economic entities, forming professional and socio-personal competences etc.

We share the opinion of the experts that future managers need not a simple review of the grounds of pedagogy and psychology but a deeper learning of social psychology and pedagogy in the close interrelation with the issues of human and social capital. Learning the conceptions of natural science does not only add anything to the students' knowledge in the area obtained at school but creates a false impression that such knowledge is easy to learn and perceive.



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Second, it is necessary to re-consider and organize in a new fashion the learning of two blocks of subjects: basic economic and managerial ones that are to form the conceptual grounds for a manager's activities and subjects providing general professional and specialized knowledge which are to ensure the functional training of cadres. Not once it has been said that the accent should be made on the competence approach intended to act a leading role in selecting the contents of management education. We have to say it again.

Third, if these amendments or changes take time and agreement with the Ministry of Education of the Republic of Belarus because the mentioned subjects form the obligatory components in the curriculum, the following change is possible in the nearest future. It concerns introducing into the curriculum of future managers and economists either the subject "Social responsibility of business (SRB)" / "Corporate social responsibility (CSR)" that has been said about at various levels [8] or the subject "Sociology of management" extended at the expense of the CSR issues. Either of them may be included as a subject in charge of the University Council or an option. Such a change will correspond to the experience obtained by foreign and CIS institutions of higher learning. There are some examples from the practice of Russian Federation. First, the CSR course was long ago introduced into the master's educational programs developed by the High School of Management at St. Petersburg University. Second, since 2010 the CSR course has become a must in the curriculum of training bachelors (specialists) of the economic profile. The Russian universities have come to understanding that the CSR course is both a competitive advantage of national business education in general and management education in particular and a compliance with European and world standards. The acknowledgement is the Round table "Problems of integrating issues of social responsibility of business (CSR) and state into educational programs of training bachelors and masters in directions "Economy" and "Management" that took place on 21 October, 2011 at St. Petersburg University on the basis of the Economic faculty [9]. Over there the experts discussed the problems and perspectives of integration of the issues of social responsibility of both business and state into the educational programs of managers and economists, analyzed the experience of those Russian universities which had already introduced the given subjects into the curricula and experience of realizing the programs intended to train the CSR personnel. Among other issues they determined the directions of cooperation between universities and business-organizations aimed at training specialists in the CSR area and forming socially responsible mentality of future economists, managers, business leaders and state employees. Besides, in September 2011 at Odessa Economic University the Ukrainian university teachers were taught to work with the textbook on the course "Corporate social responsibility" because the latter was included in the 2011 curriculum of training managers and economists.

Fourth, to increase the quality of management education in Belarus the economic institutions of higher learning should toughen the requirements to the level of learning subjects by the students. Among them are to improve the control over knowledge and introduce the credits as accepted by European universities to make a well-grounded assessment of labor capacity of various subjects. Educational institutions should arrange the teaching process in such a way to guarantee that every student could cope with the obligatory part of the teaching material. At the same time they should suggest future managers a wider scope of options, especially of the subjects in narrow specialization, and arrange training of specialists on request of existing employers that are to provide students with all kinds of practical work and give them



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assignments to develop course business-projects with the data which cannot be found in the Internet but provided by the employer.

It is important that Belarusian managers-economists could get the education that is mainly aimed at forming personal qualities, professional competences and social responsibility; the education that is oriented to forming both the potential of self-development in the employee and human capital – in the society. This is the reason why such changes are most required, especially in the contents of an expected transfer to the principles of Bologna Declaration by the Belarusian high school. At the same time one can prognose that Belarus' joining the Bologna process would result in the need to cope with the problems of two-level education development that may concern not only the major "Management" but other majors, too. At least we may state that the Ministry of Education have perceived the definite problems of management education in the republic and make attempts to solve them. A good sign is a yet debated possibility to assign the development of curriculum of training managers-economists to Belarus State Economic University – a leading institution in the system of economic education in Belarus.

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SELF-ASSESSMENT OPTIONS FOR CITIZEN PARTICIPATION IN LOCAL GOVERNMENTS

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Abstract

Citizen participation is an important part of both democracy and modern public governance. Institutions of representative democracy in many countries experience decrease of citizens' confidence right now; therefore they have to think about new forms of cooperation and participation schemes in interaction with citizens.

Getting people to participate is not easy. Furthermore, in many cases it is difficult to identify the causes affecting the level of participation and the coherence, because participation is an issue both to new democracies and to the old member states during economical crisis and "golden age" periods. Hence the factors affecting participation need analysis.

Theoretical and practical aspects of the significance of participation are a topic quite widely explored both in social and political sciences. Also public and non-governmental organizations and scientific research institutes have paid great attention to the studies of this form of democracy. Less applied in studying the participation process is the self-assessment procedure.

The purpose of the paper is to introduce a participation self-assessment tool that has been developed through international collaboration, the CLEAR tool, by adapting and modifying it to study the particular situations in local governments.

Applying this methodology allows us to diagnose participation in the particular municipality. It reveals and describes the overall picture of participation, identifies problems in several research directions and enables the municipality to develop solutions to improve local democracy.

Citizen participation is an important part of both democracy and modern public governance.

There are plenty of arguments why participation is so vital to democracy: elected representatives value support of the majority of citizens to the policies and practical activities they carry out; properly organized participation not only strengthens confidence in public authorities but also develops sense of belonging to the community, and facilitates loyalty. Yet, more than ever



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before do democratic systems have to think about new forms of cooperation and participation schemes, structural and attitude changes – because institutions of representative democracy in many countries, including the “old democracies” of Europe, experience critical decrease in citizens’ confidence [1]. The case in Latvia is no exception – data from a 2011 poll conducted by the SKDS research centre show that only 12.4% of the population of Latvia had confidence in the parliament, and 14% in the government. Public confidence in municipality/city self-governments was comparatively higher – 46%, while 49% of the survey respondents didn’t have confidence in the local governments [2]. Such a low level of confidence places a substantial burden on the implementation of state policies and the legitimacy of decisions.

Is participation important for modern public governance? It is, unless the participation process is an imitation and has a status of a formal procedure. In recent years, sayings like “from local government to local governance” or even “governance without government” becomes increasingly popular. Apart from exaggeration, their essence clearly shows the direction of modern public governance – neither central government nor local governments can operate autonomously anymore without close cooperation with citizens, civil society organizations, other bodies, and enterprises [3]. Already now the actual situation in Europe shows that citizens ever more often use new forms of communication to express their opinions, often outside of the official framework of cooperation.

J. Breul and J. Kamensky, leading researchers in American public management, developed six most important trends of government transformation, and the two most important among these were attributed to participation: engaging citizens in government – naming citizen training and involvement in decision making as important along with the tradition of informing citizens and surveying their opinions; also using networks and partnerships – because governments at all levels ever more often have to make unconventional decisions that require cooperation with other organizations and use of information technologies [4].

There are also practical arguments in favour of the importance of participation. Properly organized democracy increases the public capacity to address fundamental social problems. Because with the rise of welfare and other public spending to between a third and a half of the wealth of nations, government is no longer an institution that can be separated off: it is de facto a part of every aspect of our lives. We need therefore a more extended capacity to debate and exchange with government than that afforded by the simple act of voting [5].

In the Recommendation of the Committee of Ministers of the Council of Europe to member states on the evaluation of participation policies, it is recognized that participation “has an intrinsic value, because through various forms it gives life to democracy” [6], however, from the author’s perspective, participation is a value only if it is recognized as a value by all participants – both the governing bodies and citizens.

Theoretical and practical aspects of the significance of participation are a topic quite widely explored both in social and political sciences. Also public and non-governmental organizations and scientific research institutes have paid great attention to the studies of this form of democracy, and with good reason. Less applied in studying the participation process is the self-assessment procedure, which the author relates to its novel approach, wide scope of research, resource requirements, amount of work, doubting the objective character of the research, and political will.



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The purpose of the paper is to introduce a new level of citizen participation studies – assessment options for citizen participation in municipalities, drawing on a participation self-assessment tool that has been developed through international collaboration, the CLEAR tool [6], which the author has begun to adapt and modify to carry out a participation study in a particular local government. Adaptation of a particular methodology to measure participation in local governments in Latvia is the first step of the author's degree thesis.

The concept of participation within the framework of this paper is civic participation in the context of the activity of public administration, meaning involvement in state and municipal policy making, while devoting less attention to political participation and its democratic aspects.

Study of the topic of participation aroused the author's interest in the presence of the following factors:

- the process of participation is extremely manifold and changing. Participation is not a static phenomenon. In different phases of democracy, degrees of economical development and particular conditions, participation as a form of expression can be very diverse and varied, therefore – a subject of continuous research and development;
- the issue of participation as an effective cooperation process between authorities and citizens is as much a subject of debate as it was 10 years ago; furthermore, as countries become incorporated in the international public administration, its supranational framework is extended;
- participation is a subject of debate both to new democracies and old member states, moreover both during times of economical crisis and during “golden eras”. It means that there is no direct correlation between high level of participation and duration of the traditions of democracy;
- the level of people's confidence in public authorities has decreased critically during the last years, therefore there is a need for rearranging public bodies and new ways of interaction with society in order to preserve the legitimacy of decision making;
- development of new technologies makes public bodies react flexibly to rapidly changing circumstances and offer up-to-date forms of governance and cooperation mechanisms;
- it is easy to talk about participation in terms of obligation, but organizing it properly is complicated;
- great attention is devoted to studying the manifold aspects of participatory democracy, but self-assessment of participatory democracy is a new research trend.

Reaching such a degree of citizen participation that wouldn't be a formal process but a cooperation mechanism appreciated both by the authorities and citizens is a complicated task. Besides, one has to consider a range of factors that are hard to change in the short term, yet they still affect the participation activity. These are:

- distrust in public authorities, largely stimulated both by irresponsible policies and clumsy, low quality public management;
- deep-rooted traditions of social passivity shaped both by the imitated participation form and government officials' formal attitude towards it;
- disbelief in changing something by collaboration and in taking people's opinions into consideration;



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- total lack of interest and not seeing the point of participation;
- citizens having low self-esteem, lacking belief in one's abilities, etc.

On the other hand, one may not rule out the assumption that people's everyday living and well-being is in no way endangered, therefore they have no interest in social activity, or – that they are convinced that their interests are well-protected.

It isn't easy to answer the following questions: when is a low level of participation down to contentment and when does it reflect discontentment – a poorly organized participatory democracy; is there a connection between participation indicators and citizens' satisfaction with policies implemented by the authorities; which factors contribute to participation activity and which create dislike? Besides, there is quite a popular set of beliefs that acknowledges a contradiction between democracy and efficiency [7], arguing that more effective are those decisions that are made by qualified, highly professional personnel, and use of participation procedures is just a waste of time with little result. Robert Dahl, one of the most prominent researchers of political science in the 20th century, formulated 6 different reasons why people do not become involved in politics [8]. The author found them so apt that they may also be attributed to conditions characterizing civic participation.

According to Dahl's conclusions, you are less likely to get involved:

1. ... if you place a low value on the rewards from political involvement relative to the rewards you expect from other kinds of activity,
2. ... if you think that there is no significant difference in the alternatives before you and, consequently, that what you do won't matter,
3. ... if you think that what you do won't matter because you can't significantly change the outcome anyway,
4. ... if you believe that the outcome will be relatively satisfactory to you without your involvement,
5. ... if you feel that your knowledge is too limited for you to be effective,
6. ... the greater the obstacles placed in your way, the less likely you are to become involved in politics [8].

Also measuring the efficiency of participation is a fairly complicated task from the author's perspective, because not all examples of practical politics show a connection 'the more the participation, the more effective the governance'. From it we demand quick reaction to rapidly changing conditions and highly professional competence in decision making, but participation takes time and patience, besides not always suggestions from its participants are rational and feasible. In comparison to output indicators that may be easily adapted to measure economical development, they are hard to define for the participation process; setting performance and impact indicators would be more realistic.

The local authorities in many respects is the ideal setting for engaging the public beyond the ballot box as the immediacy and closeness allow for the development of a more intense and extended exchange between governors and the governed [6]. Besides, citizens always have a greater connection to the local policies.

To encourage local governments to improve participation mechanisms, the Committee of Ministers of the Council of Europe has developed the "Recommendation to member states on the evaluation, auditing and monitoring of participation and participation policies at local and



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regional level” (CM/Rec(2009)2), aiming to initiate among the member states the application of a participation assessment procedure on the local level. The recommendation offers local governments or other users interested in supporting participation initiatives the concept of the CLEAR tool, allowing the user to conduct impartial assessment of the actual state of matter in the field of participation, and also to look at the results of self-assessment in the context of socioeconomic and other objective indicators, and to compare it with public opinion. The authors of the tool are a team of experts – V.Lowndes (De Montfort University, United Kingdom), L.Pratchett (De Montfort University, United Kingdom) and G.Stoker (University of Manchester, United Kingdom) – who have developed this methodology upon request from the European Committee on Local and Regional Democracy of the Council of Europe. The CLEAR self-assessment tool was first used in European local governments in 2006, initially involving 23 local authorities from 5 countries in testing this methodology [9].

The recommendation encouraged the author to examine in detail the tool that was offered and to initiate an undertaking of participation self-assessment in a given local government in Latvia.

Application of the particular self-assessment tool allows diagnosing participation, understanding needs of the local community and their feelings in this context. It reveals and characterizes the situation in the field of participation in general, identifies problems in several research directions and allows the local government to develop solutions to improve the local democracy. As the authors who developed the methodology declare, “the aim of the tool is to provide a greater degree of support for policy makers and practitioners trying to make positive changes to their practice of citizen consultation and engagement. The tool takes a diagnostic stance rather than a judgemental approach” [5]. The investigative approach that the authors of the self-assessment tool advocate is about identifying and finding the ways in which people’s engagement could be promoted – namely, not only offering participation options as a passive form but concerned, proactive cooperation. The local government has the opportunity to assess the participation process by itself and to search for solutions to improve it. Although the tool focuses upon officially sponsored participation methods, at the same time, however, the tool places an emphasis on understanding participation from the citizen’s perspective: what needs to be in place for citizens to participate. It is important for policy makers to understand what citizens think about their participation initiatives and how they might be developed or improved [5].

When exploring the particular studies in Latvia, the author of this paper has not managed to find application of this tool in any of the local governments. Several established researchers, among them E.Vanags, I.Vanags, O.Krastiņš, I.Vilka, M.Pūķis, in various time periods (2002-2006) have developed a methodology to determine the general index of local democracy, also including several indicators related to participation, for instance, involving citizens in budget consultations and decision making in the local governments; proportion of local non-governmental organizations involved in decision making in the local government; presence of the communication strategy, presence of local government staff who inform journalists, etc. [7]. More often the author has encountered with indicators of political participation calculated on the basis of election results.

The CLEAR self-assessment tool is much more extended, focused only on auditing the participation process, moreover in a very wide range of research, including the perspectives of



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both the local government and the citizens. The self-assessment methodology includes a manifold use of research methods to reach an objective characterization of the situation.

The authors have developed the CLEAR tool after a comprehensive examination of the different aspects of the participation process. The name of the tool is composed from the first letters of the words describing the most important underlying principles of participation. In line with theoretical and empirical conclusions reached as a result of studies, experts have named 5 most important factors in the participation process. Participation is most effective where citizens:

Can do – that is, have the resources and knowledge to participate;

Like to – that is, have a sense of attachment that reinforces participation;

Enabled to – that is, are provided with the opportunity for participation;

Asked to – that is, are involved by official bodies or voluntary groups;

Responded to – that is, see evidence that their views have been considered [5].

According to the CLEAR self-assessment tool, participation is assessed in five main research directions:

1. capacity framework required for citizen participation – resources, skills, knowledge;
2. how weak/strong is citizens' sense of belonging to the location/community they live in, and which factors have contributed to it;
3. what is the legal and institutional framework of the local government for the development of participatory democracy, and how active is the local civic society in interaction with the local authorities;
4. what forms of participation and how often does the local government use them to improve local policies and provided services;
5. what is the assessment of participation opportunities from citizens' perspective [6].

The first research direction is based on the assumption that the more well-informed and skilful people are and the more required resources they have available, the more actively they get involved in the participation process. Rather wide spectrum of activity is understood by knowledge and skills – from the ability to write a letter in the context of activities to the capacity to organize events and start civic initiatives. Second assumption – knowledge, skills and resources are not related only to the individual's income and social status. One of the very important factors is an individual resource – an individual's education, motivation and civic capacity. In this block of research the authors suggest to pay attention to education indicators in different aspects, including attainments; to employment and its structure; to demographical indicators and comparison with the average in the country, also to analyze the level of knowledge and the availability of resources.

The second research direction is related to the argument that the more explicit is people's sense of community, the greater interest about participation they have, and vice versa. In this block, the questions studied are related to people's sense of identity and community, people's mutual connections cooperation, communication, etc.

The third direction is determined following the observations that participation as a process is more active and easier to organize if it is implemented through civic society organizations or collective participation. Questions in this segment are related to detailed



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examination of the civic infrastructure – what types of civic organization exist, in what fields; which are the most active; which have the most influence on municipal decision making, etc.

The fourth direction is related to asking people to engage in local government's activities. People tend to become engaged more often and more regularly when they are asked to engage. Research shows that people's readiness to participate often depends upon whether or not they are approached and how they are approached [5]. In this block of research, it is determined, which and how manifold are forms of participation used by the local government in interaction with citizens, and which are the most popular; how up-to-date are the participation schemes used by the local government; does it try to make participation simpler and accessed more easily; which target groups are reached by the forms of participation; has the local government developed particular policy documents that regulate the participation process, etc.

The fifth research direction is related to "responding" to citizens' opinion. For people to participate, they have to believe that their involvement is making a difference and that it is achieving positive benefits. From the author's perspective, for post-socialist countries this important component of participation is one of the most difficult tasks to accomplish. Firstly, social passivity already has deep-rooted traditions that are left behind by the "imitated" form of participation of the Soviet period, secondly, it has been affected both by little interest and my formal attitude towards participation as such, and that has only widened this split.

In this research direction, researchers suggest assessing what procedures are implemented by the local government for citizens' opinions to be taken into consideration, how do the local authorities act in situations when citizens' opinions are different than those of the local government officials; what activities/methods are used for citizens to understand the decisions made by the local government as best as possible, etc.

An important feature of the CLEAR tool is that its five research directions are neither hierarchical nor sequential. Besides, participation assessment does not necessarily depend on all five research components. Furthermore, the model does not attach importance to any particular research direction, and there is no assumed interaction between them. Thus, the diagnostic tool basically serves 2 purposes:

1. to help to identify and understand the factors affecting participation in the particular administrative territory or local community;
2. to provide an opportunity to reflect upon the relative strengths and gaps in participation in the particular local governments and to consider strategies for addressing these gaps [6].

When using the self-assessment tool in local governments, following positions of methodology are important: the self-assessment process is not an audit – operation control or inspection, a method that has proliferated in the public sector in the recent years; rather it is an objective view of themselves, clearly recognizing their attainments and shortcomings. Authors who have developed the tool repeatedly stress the diagnostic stance rather than the judgmental approach [5].

The CLEAR model does not attempt to standardize the acquired data. Its initial goal is not to compare but to stimulate reflection within the framework of municipal activity. The results of an analysis with CLEAR do not provide a statistical basis from which to compare localities or reach some kind of ranking or classification of different municipalities. The tool does not provide a benchmark which judges a particular area. However, where local authorities



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would be interested in comparing results between themselves, the methodology can be adapted, especially when local authorities decide to work together from the very beginning of the self-assessment. Even though CLEAR proposes to focus on the particularities of each municipality, experience has shown that it can be very helpful for municipalities to work together and to exchange experiences. Co-operation enhances learning and has been judged most helpful by local authorities having tested the tool [6].

The target group of users of the self-assessment tool is not local governments only. Potential users of the tool may be other public bodies that have an interest in sponsoring participation initiatives; civil society organisations within a locality or individual citizens interested in enhancing or improving the participation opportunities within their communities.

In applying the CLEAR tool, experts point out 5 important stages:

1. defining the aims of the self-assessment. They largely determine the choice and structure of research strategy and the decision about which stakeholders to involve in the research process;
2. preparation stage and resource planning – a stage when answers to all important questions of the research process should be prepared, starting with who will be in charge of the project and ending with a detailed work plan developed for the research;
3. choosing the most appropriate research methods to conduct the self-assessment, on one hand, adjusting them to the goals of the particular study and to the particular specific circumstances; on the other hand, complying with the standard and requirements of the self-assessment tool;
4. analyzing the obtained results – Identifying strengths and weaknesses, interpreting results. The tool does not provide a fixed benchmark, as it is suggested that it is inadequate and even misleading to provide criteria developed without considering the specific features of participation in particular administrative territories;
5. developing proposals to improve the participation process [6].

Along with the most important research directions, the authors of the self-assessment tool suggest exploring the contextual information of the local government that, on one hand, provides statistical characteristics of the local government and, on the other hand, allows analyzing citizen participation in certain interconnections [6].

What benefits does the author see in the self-assessment of participation?

1. Conduction of self-assessment of the participation process is an attestation to local government's political will to understand the significance of participation and to its genuine desire to improve it.
2. Participation process is diagnosed in a very large amplitude, moreover the specific features and circumstances of the particular community are taken into consideration, allowing very wide variations.
3. An objective view on the managerial and decision making structures and procedures developed by the administration, their efficiency, by identifying strengths and weaknesses.
4. Use of manifold research methods, allowing not only to diagnose the overall situation in participatory democracy but to identify problems and search for their solutions.
5. Analysis of self-assessment results in the context of local government's socioeconomic indicators.



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6. Direct communication, forums with municipality citizens about assessing the participation process, asking them questions about different aspects of cooperation.
7. Opportunity to repeat the self-assessment in one or several research directions, thus monitoring the development in certain areas and comparing it over time.
8. Self-assessment not only provides for participation diagnosis but also for exploration of mutual partnerships, networking and communication mechanisms of the local community, thus more precisely identifying citizens concerns, needs and forms of cooperation.

When applying the particular methodology to diagnose participation, the author concludes that with certain additions it may be put into practice in Latvian local governments, and its results are subject to analysis. Initially it may be used as a pilot project for several local governments, though in the future such diagnosis of local democracy may take place regularly – at least once during the term.

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THE CRISIS IMPACT ON INTERNATIONAL RATING AGENCIES: NEW TENDENCIES AND PROBLEMS

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Abstract

This article deals with the history of the creation of the international rating agencies and their role in market economy. The authors have also presented their research on the methodological aspects of rating creation and factors affecting it as well as the possibilities of practical application of the acquired assessments in the risk management process.

Introduction

The world financial crisis started in 2008 has again put on the agenda the question of rating assessment accuracy and the factors influencing the rating migration. Rating agencies aren't criticised only by the lazy. V. Reding, Eurocommissioner for the legal questions considers that Europe shouldn't allow the three USA private companies (Moody's, Standard and Poor's and Fitch) to scoff at its own economy. He suggests to shatter these three "whales" of credit-rating sphere into six, and to create own rating agency in Europe. The head of committee of banks of the USA Senate T. Dzhonson characterized the activity of rating agencies as "irresponsible". The commission on securities and stock exchanges of the USA (SEC) has recently checked up the work of ten rating agencies (among which there were also three "whales") and has specified a variety of methodological and organizational problems in their activity that questions their competence.

If to study criticism of the international rating agencies for two periods – 2008-2009 and 2011 attentively, a rather paradoxical picture turns out. Three years ago agencies were accused of total, wrongful overestimation of ratings, excessive softness. Now the situation has changed: after decrease of some state ratings (the European countries and even the USA) the criticism has



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sharply changed its orientation. Now agencies are accused of excessive rigidity, and decrease in ratings becomes the reason of aggravation of financial problems in the separate countries, banks and the companies. Where is the truth?

The economic function of the international rating agencies consists of transferring the signals of various risk levels to market participants, thus providing investors with the possibility of correcting portfolios and finding the balance between the risk and profitability in the short term. The basic function of the international rating agencies consists of stabilisation of the markets, but not in their destabilisation. However the opposite takes place in practice, and there is an explanation to it:

- Dynamics of ratings have a clearly pro-cyclic character: ratings grow in a high conjuncture and fall during years of economic crises, strengthening pessimistic expectations of market participants;
- The ratings themselves can carry the function of self-fulfilling prophecies;
- Rating changes very frequently don't occur ex ante, on the basis of the new information, but appears ex post i.e. after there is a change in tendencies in the market. The international rating agencies "reflect past events" (Elkhoury, 2007; Raminsky and Sergio, 2002) instead of forecasting them. This is the tendency both of the financial crisis of 1997-1998, and the present financial crisis.

The above mentioned problems have essentially questioned trust in the activity of international rating agencies. The rating is a very influential instrument of assessment which has a very strong impact on the behaviour of the investor. Rating agencies don't have moral responsibility for the owned and offered assessments as well as for the possible losses of the investor. Therefore there is an actual question of trust in a rating assessment and the necessity of introduction of elements of control. On the other hand, the introduction of mechanism of control questions the principle of "independence" of a rating assessment. According to the authors of the article the solution of this problem is connected with the questions of implementation of methodology used by a rating agency, as well as the question of how quickly a rating agency is capable of reacting to changes which have occurred in the object of research.

The object of research is the activity of international rating agencies and the ratings owned and offered by them.

The aim of the article is to analyse the evolution of ratings, their role in assessment of risks, the basic tendencies and problems in activities of international rating agencies at the present stage, and to suggest improvements of their activity and increase of trust in rating agencies.

Research tasks:

- 1) to analyse the evolution process of ratings and other rating processes;
- 2) to analyse the drawbacks in the activity of the international rating agencies at the present stage;
- 3) on the basis of the given analysis, to make conclusions and work out suggestions for the improvement of the international rating agencies activity and increase public trust in rating agencies.

While working on the article the authors used the following research **methods**: generally accepted quantitative and qualitative methods of research in economic science, including comparative analysis and synthesis, and graphical methods.



Evaluation of Ratings and Rating Processes

A rating is a complex risk assessment of a firm, bank, insurance company, share fund, state, region, issue of bonds and other financial tools on the discrete ordered scale which is called a rating scale.

The Latvian word 'reitings' is derived from the English word rating which means assessment or defining the value and belonging to a certain rank or category. Ratings of a state, region, enterprise or commercial bank show the subject's security, stability and solvency. The directions of formation and development of rating systems involve the following economic components:

- production field (acquisition, transport, communication services enterprises and others);
- financial field (commercial banks, insurance companies, investment funds etc.);
- market of goods.

The authors of the article have the opinion that ratings have an informative function and assist to work out a long-term strategy of activity. Ratings are part and parcel of business information, can insure trust in business, and are good indicators for investors and other interested persons.

Rating system formation foresees rating approach to determination and publication of methodological and technological characteristics. First of all it is necessary to define certain aims and directions of the rating, subjects of the rating as well as methodological characteristics, process of research and its figures, regional and field characteristics structures, hypothesis and restrictions, types of presentation and distribution terms, commercial base.

Formation of ratings is a special kind of activity which has essential demand in the market economy. The specialised rating agencies deal with formation of ratings, their main task is information intermediary by supporting the systems of ratings. The famous rating agencies, which make assessment of commercial banks are *Standard&Poor's*, founded in 1860, *Moody's Investor Service*, founded in 1914 and *Fitch IBCA* reorganised in 2000 after take over by *Thomson Financial BankWatch*.

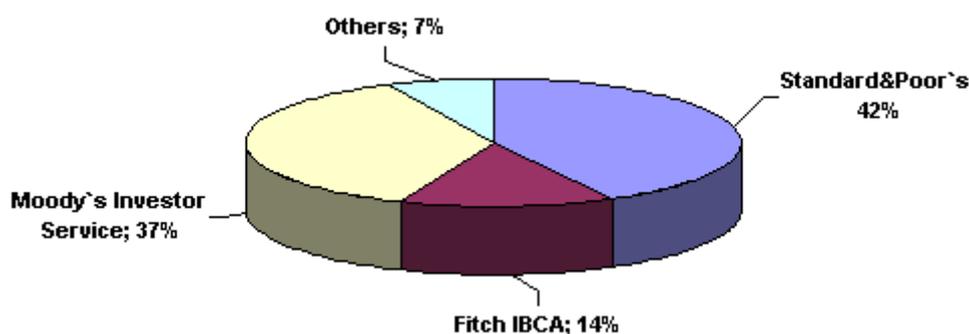


Figure 1. Division of the global market of rating services

Source: www.standardandpoors.com, www.moody.com, www.fitchrating.com



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In the course of evolution of ratings and rating agencies it is necessary to specify the decision of the United States Securities and Exchange Commission in 1975, according to which some rating agencies became “nationally recognised statistical rating organizations” (NRSRO). The existence of this list is one of the reasons that a number of rating agencies isn’t big, despite of high profitability of this business¹.

Prior to the beginning of seventies of the 20th century the majority of rating agencies received income by selling the ratings to bond holders. Since 1970 *Moody’s Investor Service* and *Fitch IBC* have started taking payments from emitters for exhibiting of a rating to issue bonds. Some years later their example was followed by *Standard&Poor’s* (White, 2002). Now *Moody’s* and *Standard&Poor’s* own and publish ratings to all releases of the corporate bonds registered by SEC, using only the public information. Such ratings are called “*ratings without a demand*” (unsolicited ratings). On demand of the emitter and under condition of payment rating agencies carry out more detailed analysis of a condition of the emitter and offer “*a rating on demand*” (solicited rating). The fee for the services of rating agencies is from 25 thousand to 130 thousand US dollars (White, 2002). Their fee also depends on the chart of payment and type of a rating.

The main service principles of international rating agencies are independent assessments, publicity and availability, collective nature, interactivity, confidentiality of the information, use of rating scales which allow to compare the subjects of ratings. It is necessary to point out that the rating carries out the function of *transformation* (Солодков, 2010) of great amount of information into public opinion referring to the classification group of the subject. Actually the main activity of a rating agency is to perform the role of an information intermediary. Based on the analysis of techniques of rating agencies, the process of assignment of a rating consists of the following steps:

- Classification of subjects of ratings;
- Working out a technique of forming the ratings;
- Shaping the models of assessment of each factor at the basis of the objective data (audited financial reports) and the subjective (expert) data;
- Receiving the integrated assessment;
- Consideration of results by a rating committee and taking a decision on referring the subject to a certain rating category;
- Agreeing to the decision taken with the rating subject (the appropriated rating can remain confidential);
- Release of a rating report.

The international rating agencies offer various rating products (see Table 1). The leading role is played by the credit ratings based on the opinion of a credit agency about the general credit status of the borrower. Credit ratings are used both by investors and borrowers as well as financial intermediaries. Rating agencies also publish ratings on national scales. The basic difference consists in recording of sovereign risks for the international ratings which are connected with the insolvency of the state, i.e. recording of direct or indirect impact of this

¹ According to the official reports the income of agencies in 2008 are estimated: Standard&Poor’s – 2.0 billion dollars, Moody’s Investor Service – 1.4 billion dollars, Fitch Ratings – 630 million euro.



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factor on the level of solvency of the company. It is necessary to specify that the sovereign rating of the state is the so called “ceiling” for a rating of companies in the given country.

Table 1

Rating types of international rating agencies

Name of a product	Rating agency		
	<i>Moody's</i>	<i>Standard&Poor's</i>	<i>Fitch IBCA</i>
Long-term credit (deposits)	+	+	+
Short-term credit	+	+	+
Financial stability	+		+
Bonded loan obligations	+	+	+
Corporate governance	+	+	
Supports			+
On national scales	+	+	+

Source: www.standardandpoors.com, www.moody.com, www.fitchrating.com

Granting of a wide range of services by rating agencies is connected with the influence of the following factors (Langohr, 2008):

- Development of financial intermediary which stimulated development of credit ratings;
- Investing resources in various financial instruments and using rating products for decrease of a risk level;
- Globalisation of the financial markets stimulated the necessity of assessment of counterparts with the aim of simplifying the process of decision-taking;
- Introducing of new structured products (financial innovations).

Regulation is the Answer to the Activity Drawbacks of Rating Agencies

The global financial crisis has revealed a number of problems in management of a considerably extended financial system. In the first decade of this century, new instruments have been created. On the one hand they provided a higher profit but on the other hand – raised the level of risk at the expense of the threat of growing "bubbles" of the prices for the actives that couldn't estimate adequately both regulating instruments and rating agencies.

Representatives of rating agencies very often declare that they have a deep analytical knowledge and “a critical amount” of the experience, necessary for an adequate assessment. Practice shows that agencies regularly make the errors leading to financial losses of investors. It is enough to mention loud corporate scandals of 2000th years when apart from agencies the auditors got mixed up too, such as *Enron*, *WorldCom* and *Parmalat*. The irresponsible and ambiguous attitude of rating agencies to the provided bonds became one of the main reasons of the American mortgage crisis. Failures in assessments, failures in statistics of rating agencies of



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developing countries, failures in statistics of the Conference of the United Nations on trade and development, were even greater (see Table 2).

Table 2

Statistics of failures of rating agencies

(Number of steps of a rating on which one-time revaluation of a sovereign rating has been made)

States	Year of crises	<i>Standard&Poor's</i>	<i>Moody's Investor Service</i>
Thailand	1997	4	5
Indonesia	1997	7	6
The South Korea	1997	10	6
Malaysia	1997	5	4
The South Korea	1998	4	-
Rumania	1998	3	3
Russia	1998	3	4
Moldova	1998	-	3
Argentina	2000	4	-
Uruguay	2002	5	6

Source: Elkhoury, 2008

The international rating agencies are accused of **non objectiveness** of the appropriated ratings. It would be desirable to cite several examples.

In the USA there is a double deficiency (both the balance of payments of current operations, and the federal budget) which is financed at the expense of capital inflow from abroad. Thus if the size of deficiency of the balance of payments of current operations in crisis tends to reduce (throughout 2006-2008 it decreased from 788.1 billion dollars to 568.8 billion dollars) (CIA, 2010), on the contrary deficiency of the federal budget of the USA promptly increases. If in 2004-2007 it fell from 412.7 billion dollars to 162.0 billion dollars, in 2008 it reached 454.8 billion dollars (FMS, 2008), and only in the first quarter of a new fiscal year it reached a record amount of 485,2 b. dollars and following the results of 2009 it can approach 1.2 billion dollars (CNNMoney, 2009). The events of September-October in 2008 became the turning point when the two backbone investment banks of the USA left the market (absorption of "Merrill Lynch", bankruptcy of "Lehman Brothers"). It has been the largest failure of the American financial regulation since the Great Depression. Though more than 40 banks went bankrupt in the American market in 2008, deficiency of the state budget of the USA grew considerably, and investors suffered losses, estimated in trillions of dollars, but none of the agencies declared the revision of a rating of the United States! Only in April, 2011 the international rating agency *Standard&Poor's* declared the decrease in the forecast of sovereign credit rating *AAA*² from "stable" to "negative", having caused a real shock and panic in the world of finance. The agency has declared that there is 33% probability of the fact that in the

² The USA rating AAA was appropriated on January 1, 1941 and has never been changed.



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nearest couple of years the credit rating of the USA will be reduced. The credit rating of the USA has been lowered to AA in August, 2011.

Speaking about Japan, whose external debt makes 204 % of the Gross National Product, the international rating agency *Standard&Poor's* only in January, 2011 (for the first time in 9 years) declared rating decrease on one rating category – to level AA-.

The international rating agencies started to reduce a sovereign rating of Latvia in 2008 (see Figure 2) as soon as there were the first signs of imbalance of a macroeconomic situation.

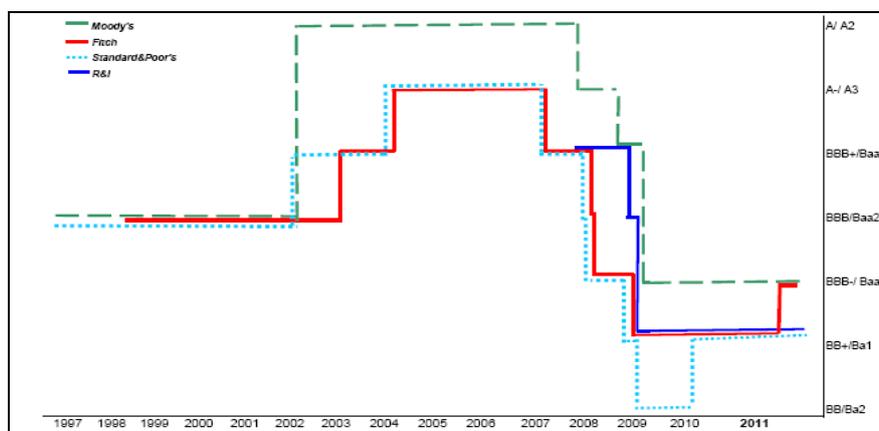


Figure 2. Dynamics of credit rating of Latvia in 1997-2011

Source: www.kase.gov.lv, 2011

In the economic science the activity of rating agencies are connected with a *moral hazard*, risk of *adverse selection* because of the asymmetry of the information and the *principal-agent problem* (Моисеев, 2009). In practice the claims to the agencies are the following:

- Dependence on fee amount on the level of an appropriated rating;
- Dependence on the information of the emitter;
- Voluntarism in the information analysis;
- Offering consulting services simultaneously.

There is a question: what factors do influence **bias** of rating assessment and on how much the assigned rating is **authentic**? At first sight it can seem that reliability of a rating depends exclusively on degree of reliability of the information which is provided within the limits of the certain methodological approach to a rating definition, that is the rating agency at defining the rating should look forward to use that information which possesses the greatest reliability.

Within the frames of the majority of existing techniques of rating, it is foreseen to use the public financial reporting of a client as the initial information, and other information presented by a client, as well as the external information. Reliability of the public financial reporting of a client is provided by consecutive performance of principles of accountancy, as well as the principles and procedures of audit. As to other information presented by a client and the external information, the assessment and security of its reliability is carried out by a rating agency independently.

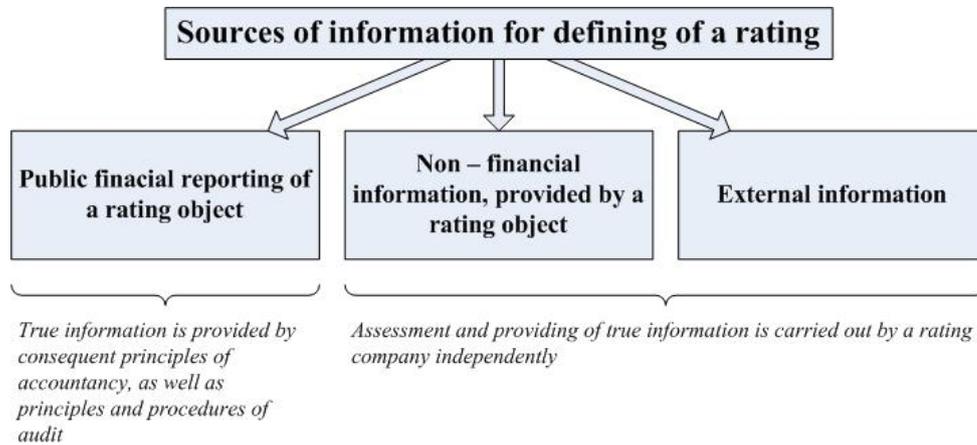


Figure 3. Providing of the trustworthy information used for definition of a credit rating

Source: Галасюк, www.aup.ru

However, it is necessary to pay attention that reliability of a rating isn't defined exclusively by reliability of the initial information. There can be a situation when the rating defined on the basis of trustworthy information isn't authentic (Figure 4.).

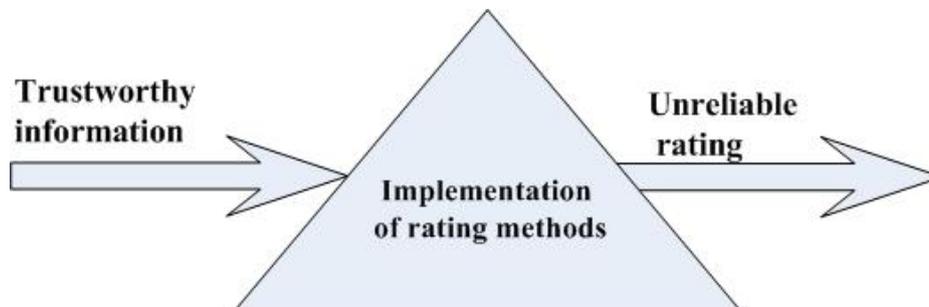


Figure 4. Unauthenticity of the credit rating received on the basis of the initial true information

Source: Галасюк, www.aup.ru

Such situation can be a consequence of:

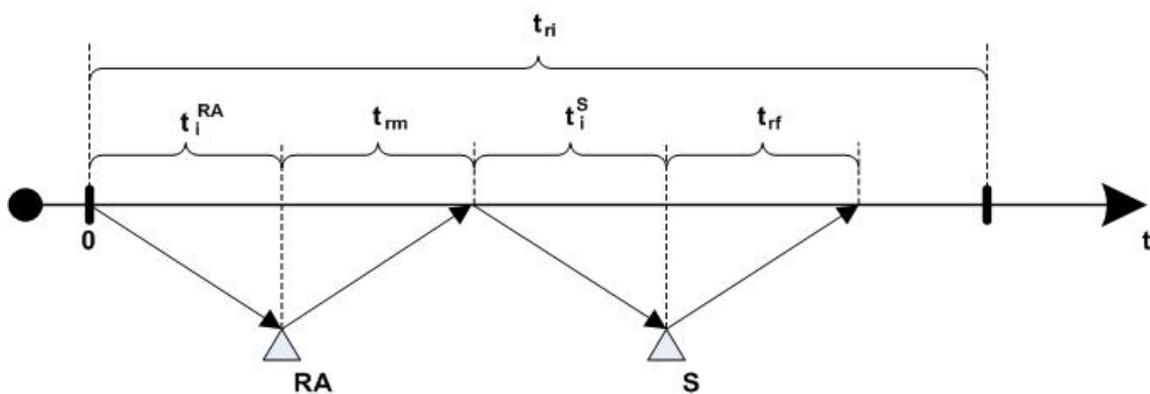
- Application of inadequate methodological techniques for rating definition therefore the information containing in a rating, doesn't correspond to a real course of events and processes which it reflects;
- Errors in the course of implementation of rating techniques.

Events and processes often change essentially, especially in economy, however the ratings assigned by rating agencies, frequently don't change for months, and even for years. Thus, the conclusion is that the information containing in rating agencies ratings, isn't true owing to the existence of a time lag. As the events and processes change during each moment of



time the information containing in rating, never will be absolutely true if only it isn't defined in a mode of real time. Hence, it is possible to speak only about reliability of a rating at a certain time or about relative reliability of a rating.

Another actual problem is **timeliness** of a rating. Difference of the timely information from the untimely consists of the following: the timely information allows its users – the subjects to, make decisions, in due time to react to a situation change, but untimely doesn't. Accordingly, the degree of timeliness of the information is higher, the shorter is the time interval between the event and the moment of time in which it becomes known about to the user of the information (Галасюк, 2002). With increase in a time lag of providing the information to the user there comes such a moment of time when the information doesn't reflect a real situation any more. The reaction of users of this information on the change of a situation isn't timely any more as it doesn't answer the terms and requirements of a current situation. The information during this moment of time turns from timely to the untimely.



where

RA – rating agency;

S – the user of a rating;

t_{ri} – interval of a relative invariance of a rating;

t_i^{RA} – interval of providing of the information to a rating agency;

t_{rm} – an interval of implementation of rating techniques (assessment) by a rating agency of the subject;

t_i^S – interval of receiving of the information on a rating by a user of a rating;

t_{rf} – interval of making and implementation of the economic decision by the user of a rating.

Figure 5. The scheme of movement of information streams in time

Source: Галасюк, www.aup.ru

According to Figure 5 condition of timeliness of a rating in the mathematical form can be presented as follows:

$$t_i^{RA} + t_{rm} + t_i^S + t_{rf} \leq t_{ri} \quad (1)$$



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It is also necessary to point out that in modern economic conditions providing of timeliness of a rating becomes more and more a challenge. Tendencies of development of economy testify that speeds of course of economic processes increase essentially. First of all, it concerns the markets of liquid assets, especially the financial markets. As a result duration of “an interval of a relative invariance of a rating” (t_{ri}) is essentially reduced.

The majority of rating agencies don't inform the so-called “an interval of a relative invariance of a rating”. It leads to the fact that the users of ratings have no possibility to estimate, whether the appropriated rating is timely at the moment of making of the economic decision or not. To achieve the greatest possible level of timeliness of ratings in the conditions of acceleration of the course of economic processes the international rating agencies, according to authors, should:

- To provide the maximum timeliness of the information for creating of ratings;
- To minimize duration of procedure of assignment of a rating;
- To accelerate procedures of forwarding of the information on ratings to its users;
- To reconsider the appropriated ratings with the interval of time which doesn't exceed “an interval of a relative invariance of a rating”.

The chronic problem of rating agencies is that they are constantly criticised for their charged **payment** for the rendered services. Many authors (Partnoy, 1999) specify the possible clash of interests: the rating agency can underestimate “a rating without demand”, for the purpose of constraint to receive fee for “a rating on demand”. However it is necessary to point out that in research papers investigating distinction in ratings on demand and without demand, there is no acknowledgement of the above mentioned criticism. In research paper of Poon W.P.H. (2003) we deal with the analysis of *Standard&Poor's* ratings of 265 companies from 15 countries in the period of 1998-2000. The author concludes that alongside with other equal conditions ratings without demand are lower than ratings on demand. This fact can be explained by the effect of self-selection: only the companies which are confident of their financial position order a rating. In its turn, rating agencies explain this effect by the conservative approach to exhibiting “a rating without demand”, based on the incomplete information on the rating subject.

Because of the interests clash users of ratings lose: they are banks, investors and regulators, but not the participants of the process of rating themselves. According to the authors of the article, the best solution of this problem which will lower the stream of criticism and will eliminate the clash of interests, is that the assignment of ratings should be carried out **free** of charge. The international organisation of commissions on securities calls these ratings “*unsolicited ratings*”, these are the ratings, which agencies appropriate without a formal order from the emitter or the borrower. In these cases the payment for assignment of a rating isn't planned and meetings or information exchange between agency and the client aren't foreseen (IOSC, 2003). Suggesting the above mentioned solution to a problem, the authors realise that

- decrease in income of rating agencies is possible. However, agencies can earn on credit analytics and on granting the consulting services;
- refusal in granting of the documentation of internal character is possible. In this case there is a question of objectivity and quality of the appropriated rating. The



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international agencies insist on the access to the internal information which provides a higher quality of the analysis. However the research of some central banks proves the opposite. In October, 2008 the Research Institute of the Central Bank of Finland (Peresetsky, Karminsky, 2008) published the results of the analysis according to which the models of ratings based only on the generally accessible information, have as good forecasting ability, as the models which rely on the internal information. In the National Bank of Belgium (Roy, 2006) they have come to a conclusion that gratuitous ratings at the basis of public information don't compete with the official ratings and are even more careful. Granting the ratings without the order will allow to expand a number of subjects having a rating, to avoid rating "purchase", as well as to encourage the flow of new participants of the rating market, thus to improve the quality of the offered services.

It is necessary to point out that the suggested solution of a problem is very radical and its introduction is connected with various difficulties. The first step to the introduction of the above mentioned suggestion can be introducing of **adjustable pricing** on services of ratings. The state can establish the fixed tariffs for ratings, disregarding the size of the business of the client and importance of a rating. It will allow to minimise stimulus for agencies, and customers to falsify ratings deliberately or influence the process of their assignment.

There are well-known examples when rating agencies couldn't foresee the events in due time (a problem of used **methodology**), which had serious economic consequences: the largest financial crisis in Asia, Russia and in a number of other developing countries (1997-1998), bankruptcies of companies *Enron*, *WorldCom*, defaults of bad quality mortgage securities (2007-2008). The explanation of the above mentioned failures is in the use of so called "through-the-cycle" methodology, according to it the assigned ratings should take into account and react to the data of creditability changes, permanent only for the time being, which may occur in connection with outside interference and don't change for a short period of time due to creditability fluctuations. This kind of approach is an attempt to trade off between the rating security and timeliness. Timeliness is a must for the rating as an analytical and informative product. The authors of the article take an opinion that security means that there are no fluctuations in the assessments of ratings in a short period of time. Thus the methodology, "through-the-cycle" means certain inertia of ratings towards new information. On the other hand, it also meets the demands of investors. Too frequent changes of a rating would make investors to reconsider investment portfolios, thus increasing the costs as well as creating a feeling of uncertainty of participants of the market. Rating agencies want their clients to trust in them, they want to have a good reputation, therefore they try to present their rating process in details. They publish and describe their methods of working out and organising ratings where they specify the factors and the scales the agency takes in consideration in exhibiting the rating, as well as the experts of an agency make an assessment of every factor. However, in spite of the technique of "openness", you can't repeat the methods, what is clear enough: if it were possible to reproduce them, the competitors could easily do it. Taking into account the above mentioned as well as the influence of ratings on behaviour of investors, the international rating agencies must take responsibility for the accuracy and efficiency of ratings.

The activity of rating agencies **demands adequate, reasonable management**. The Chief Economist of IMF *O. Blanshar* (2008) also mentioned the problems of ratings in his report



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“Forthcoming problems” to the states and the governments of the summit G20 which took place in Washington on 15th November, 2008. In his opinion, “the structures of supervision of rating agencies and risk management should be reconsidered for strengthening of market discipline”. Following the results of the summit of “The Group of Twenty” on the financial markets and the world economy the declaration was adopted. One of the regulations of the declaration dealt with taking more strict control of rating agencies. The following can be referred to the minimal standards:

- Requirements to the quality and sustainability of ratings (i.e. rating assessments should be objective and fair, and process of rating clear, transparent);
- Independence and exclusiveness of rating assessments (prohibition of combination of different kinds of activity);
- Responsibility of agencies for the exposed ratings (it is necessary to subject agencies to official sanctions in case of detection obvious errors in assignment of ratings).

The sounded criticism of rating agencies stimulated to work out of new concepts and legal acts regulating their activity.

On 21st July, 2010 the US President Barack Obama signed the **Dodd-Frank Act** (<http://www.sec.gov>). The Act is meant not to admit new financial crisis and to provide creation of the strong base to the economic growth. The Act will allow to bridle Wall Street, to avoid a new crash of ‘To Big To Fail’ corporation, and also to protect the clients of financial services. The document contains more than 2000 pages, therefore we will touch upon only separate part of the Act – regulations of activity of rating agencies. The basic changes in activity of rating agencies are the following:

- Creation of new department in SEC (US Securities and Exchange Commission). Creation of new department of rating agencies in SEC will have a power to fine agencies. There will be the controllers possessing necessary knowledge and experience. At least once a year SEC will inspect agencies and make its conclusion to the public;
- The requirement to agencies to open estimation methodology, sources of reception of the information about the companies which have rating, the list of the carried out assessment;
- Use of the information from independent sources. The requirement to agencies to consider the information which arrives not only from the companies which have a rating, but also from the other sources which are reliable;
- Cancellation of the 436 (g) in the Securities Act which assumes that the credit ratings provided by agencies, don’t fall under action of articles 7 and 11. That is according to the rule 436 (g) agencies don’t bear responsibility for their assessment. As a result of cancellation 436 (g), emitters of securities who want to include a credit rating in the project of emission or the public conclusion, should receive the consent of a rating agency. If the agency gives out such a consent it will be obliged to bear responsibility (according to the article 11 on Securities Act) for distortion of the information or certain omissions in each rating included in the prospectus/conclusion. Probably that now the agency consent will cost more expensive;



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- The right to forbid activity gives SEC power to stop agency activity for providing of an inappropriate rating to a real situation;
- Education. The requirement to rating analysts is to have higher education and to take qualification examinations.

The new European legislation concerning rating agencies was developed in 2009-2010 and in 2011 on January, 1st came into force. It obliges credit rating agencies to be the registered participants of the market, and also to open a question of the potential conflict of interests in its own methodology. For supervision of the financial markets the megaregulator was created, it is ESMA – (European Securities and Markets Authority). ESMA can apply sanctions, temporarily withdraw the right of a rating agency on release of credit ratings or even to cancel registration if considers that it breaks any legislative requirements (for example, putting itself in a situation of the conflict of interests).

Introduction of responsibility for exposed ratings encourages strengthening financial position of rating agencies. According to the authors, it is **necessary to establish standard requirements to the size of their own capital**. On the one hand, it will allow to lower sensitivity of agencies to risks, and on the other hand – will make their proprietors and managers have a more serious attitude to ratings. The minimum capital owned by agencies represents the analog of requirements to owned capital of auditor firms which exist in many countries.

Conclusions and Suggestions

The crisis of 2008-2009 has its impact on the market of rating services, it revealed a number of drawbacks and discrepancies in activity of rating agencies. For improvement of the activity of rating agencies and increase of trust in them, the authors of the article have made the following suggestions:

- Assignment of ratings should be carried out **free** of charge, which will lower a stream of criticism and will eliminate the clash of interests. The first step of implementation of this suggestion could be the introduction of **adjustable fees** on services of rating agencies;
- The international rating agencies should take responsibility for accuracy and efficiency of the appropriated rating, continuously improving their methodology;
- Introduction of **adequate, reasonable regulation to activity** of rating agencies;
- It is also essential to establish **standard requirements to the size of their own capital**.

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EUROPEAN INDUSTRIAL RELATIONS: COLLECTIVE BARGAINING IN THE EU AND EU MEMBER STATES

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Abstract

The paper will describe the main trends in industrial relations (IR) and its institutions in the EU that currently show a mix of continuity and diversity. The author will pay attention to position of collective actors in industrial relations: trade unions and employers' associations respectively. For each, the main organisational features and representation of members will be emphasized. A key institution in the relation between unions (workers/employees) and employers (firms/public institutions) is the collective labour agreement. The paper states that national industrial relations regimes remain diverse – mainly between the EU-15 and the 12 New Member States, but also within them in different country groupings. The effect of the current financial and economic crisis on industrial relation arrangements is not yet clear. A description of the trends and variations in industrial conflict will be discussed.

The conclusions of the paper will stress that trade unions and employers' organisations were recognised as being major interlocutors for several governments seeking to respond to the crisis. Together with monetary and fiscal stimulus policies, negotiation and consultation involving the social partners have played a significant role in limiting negative social consequences. On the whole, industrial relations in Europe have been vital. In 2010, the Cross- Industry Social Dialogue Committee adopted a joint contribution, that stressed a number of crucial for successful economic recovery objectives: reform of the global financial system, restoring and improving growth dynamics to create more and better jobs, promoting skills and entrepreneurship, revitalising the single market and developing an integrated EU industrial policy among others.

The paper will suggest continuing studies of the financial and economic situation in the EU Member countries in 2011-2012 to analyse the role of social dialogue in critical times for the Europe.

Introduction

Industrial relations in the EU currently show a mix of continuity and diversity [4, 5]. The current socio-economic trends show the existence and practices of industrial relations in not only in private sector management but also in public sector management. For example, tighter



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fiscal discipline has been one of the policy imperatives facing EU Member States governments for about the past decade. The social partners are involved in this process and agreed the need for tighter control of public spending. The fiscal targets set out in the Maastricht process and being under discussion during current EU debt crisis have reinforced financial discipline. Tighter fiscal discipline has a number of implications for industrial relations:

- First, it has led governments' to a focus on greater efficiency and higher productivity in the public services, resulting in reviews of public service pay determination, grading structures, employment contracts and working practices.
- Secondly, it has provided added impetus to new approaches to public management such as the 'strategic management initiative' and devolved administrative budgeting. In stressing the importance of clearer objectives for service delivery, more accountability and flexibility in deploying resources and devolved authority to make management decisions, these new approaches to public management again inevitably cast a spotlight on established industrial relations practices in the public services, health, education and local authorities.

Tendencies towards declining union density in the EU countries, decentralisation of collective bargaining (many scholars consider collective bargaining coverage as being similar to unions membership) and lowering of employee participation level has continued. This can be seen at the levels of bargaining coverage, and a role of many EU governments in IR.

In Europe there has been a general trend of growing trade unionisation of employees since 1930 up to 1980s. The latest annual trade union membership statistics, released by the Trade Union Confederation in 2011, show that union density and collective bargaining coverage have once again fallen. Less than 31% of workers were covered by a collective agreement in 2010, which is down 2% on the 2009 and 5% lower than a decade ago. Over 2010, coverage in the private sector fell from 18% to 17%, and in the public sector from 68% to 64.5% [5]. This means that across both sectors private and public, much less workers/employees are covered by collective bargaining than at any time since the Second World War.

Lowering trend of trade union density rates make policy makers think about organisation not only of trade unions and also how collective agreements are negotiated? Is national, sectoral or company level dominant or is the negotiation process a mixture of all these levels? What will happen to the coverage of collective agreements in the future? Are less or more people covered by collective agreements? Are the above-mentioned trends similar in the all of the EU Member States? Is there any diverging or converging trend towards Europeanization of industrial relations?

An attempt to discuss these questions and to analyse changes in IR with respect to position of collective actors (employers organisations, trade unions and governments in industrial relations in the EU in general, and in Latvia in particularly, is given in the article. The research was based on the results of documentary research and expert interviews on the industrial relations in Latvia. The documentary research analysed data is based on the sources of the OECD, ILO, IMF, Eurostat, the European Foundation for the improving the living and working conditions and the national statistical office of Latvia as well as by the daily newspapers. Semi-structured expert interviews with trade union (employee) and employer representatives in a number of enterprises in the transit sector, public health sector, public transport, education and research sector as well as a number of background discussions on the sectoral and national levels about the industrial relations system were conducted between December 2010 and August 2011.



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1. The Main Trends in Industrial Relations and Its Institutions in the EU

A fundamental element of industrial relations is social dialogue and the key institution in the relation between unions (workers, employees) and employers (firms and public entities) is the collective labour agreement, but still the [5] major actor in industrial relations remain trade unions.

The author would like to pay attention the fact that the European social partners at the European level are organised around three different types of activities:

- *tripartite consultation*, the exchanges between the social partners and the European public authorities;
- *consultation of the social partners*, which covers the activities of the consultative committees and the official consultations;
- *European social dialogue*, the bipartite work of the social partners, whether or not it stems from the official consultations of the Commission are based on Articles 153 and 154 of the Treaty on the functioning of the European Union (TFEU).

In the EU Member States the collaboration between state and social partners is an important connecting link between industrial relations and government policy. It provides the means of attuning collective bargaining to national economic and social policy and, conversely, opens up all aspects of that policy to possible influence by the social partners. Accordingly, two subsystems of social partnership can be differentiated: bipartite consultations and negotiations between the social partners, and tripartite consultation and concerted policy-making between the social partners and the state. Bipartite social partnership encompasses three arenas: 1) the informal practice of negotiations and discussions at cross-sector level; 2) the collective bargaining system, focused on the sectoral level and representing the core institution of bipartite social partnership; Tripartite social partnership relates to all social and economic policy issues which in formal terms fall within the purview of state powers and responsibilities.

The European Union has no powers to harmonise the numerous – and in some cases very different – systems of social protection and employment policies in the Member States. Instead, its role is to coordinate these systems to protect the main principles of the Common Market. The European Social Charter articulates a number of fundamental rights in such areas as collective bargaining, protection from unjustified dismissal, health and safety at work, etc. [1].

It is important to underline that collective bargaining is the process through which the social partners arrive at an agreement that regulates both terms and conditions of employment and labour relations. Collective bargaining plays significant role in labour market governance. A collective bargaining coverage rate is an indicator of the degree to which wages and working conditions are regulated by collective agreements. For example, centralized collective bargaining structures tend to be associated with high coverage rates. In countries, which extend the terms of a collective agreement to enterprises and workers who may not be parties to the agreement coverage rates tends to be higher than in the other.

At the company-level, social dialogue was implemented in the EU by the adoption in 1994 of the European Works Councils Directive revised in 2009 [2] as the result of constructive negotiations on promotion fairer economic development through a collaborative effort to increase productivity and enhance conditions of work.

European integration context influenced development of new forms of partnership at European, national, and company levels. In the European labour movement, the involvement of



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social partners and in particular, trade unions within these institutions, provides the solid basis for the redefinition of trade unions' strategy and identity. One of the major influential factors related to the strategy of trade unions and their collective bargaining is intensified international competition and, currently, domestic economic and financial insecurity. There are, however, some signs of resistance starting to develop within the European labour movement that challenge both the underlying acceptance of neo-liberalism and the strategy of social partnership. These development take the form of a transnational "social movement unionism" that links diverse groups and networks in opposition to neo-liberal concept in the context of growing globalisation.

2. Industrial Relations and Different Approaches in Collective Bargaining

Tendencies towards declining union density in the EU countries, decentralisation of collective bargaining and employee participation continued, the company and public sector enterprise level has become more prominent. Continuity can be seen in the high levels of employer organisation, bargaining coverage, and a role of governments in industrial relations.

A position of collective actors in industrial relations: trade unions and employers' associations reflect the state of the industrial relations.

Examples of the EU Member States reveal differences of the IR that vary among countries. The trend of IR and collective bargaining is still going strong in Scandinavia and in Central Europe- in Belgium. A key reason for this is that collective bargaining in Scandinavia and Belgium, for example, is widely acknowledged in these countries, by many political actors and social dialog partners including centre-right parties and employer groups. The main reason is that collective bargaining according these practices produces significant economic benefits and help industries of these countries to remain competitive. Collective bargaining coverage remains at high levels in these countries, and has increased in recent years at a time when bargaining coverage has fallen elsewhere. [6] As many studies suggested, collective bargaining produces social benefits. The studies also show that economic benefits of the collective bargaining are more complex and often produced mixed results and can negatively affect employment and inflation. At the same time many scholars and international institutions agree 'coordinated' systems of collective bargaining have a more positive impact than 'fragmented' ones. In other words, it is not how many or how few workers are covered by collective agreements, but rather the extent to which bargaining is coordinated, that matters most in assessing whether collective bargaining systems have a positive or negative macroeconomic impact [8].

In this respect it is interesting to follow the position of the OECD in relation to the deregulation of labour market and experience of Scandinavian countries that have coordinated system of 'collective bargaining'. The opinion of the OECD about deregulation of labour market as the best way for countries to reduce unemployment has been changed in 2006 after the experience of Scandinavian countries towards highly coordinated collective bargaining systems and active trade unions. Scandinavian countries produced strong economic performance and jobs growth essentially the opposite of what the OECD had originally suggested to countries [9, 6]. Particularly, in Sweden and also in Denmark- decision-making over collective bargaining is highly centralized. In Sweden Trade Union Confederation, local union activism is



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stronger than in many countries, which has helped Swedish unions maintain high membership density (around 68% according to the latest data [6])

In addition, strong and efficient links between local and national levels helps to coordinate collective bargaining and maintain strength across all levels of union organization.

Similar to Sweden the Danish model of collective bargaining is centralised and highly ‘coordinated’, but this has not led to rigid labour markets or work practices.

For example, a World Bank survey found Denmark to have the most flexible labour market in the world. Coordination between the unions, employers and the state through collective bargaining and other mechanisms has been a key factor enabling very open to international markets Danish economy to adapt to changing external environment. This centralized and ‘coordinated’ system of collective bargaining in Denmark coexists with the ‘flexicurity model’ widely used in the country, which allows relatively easy for employers to hire and fire workers/employees [6]. At the same time a generous system of unemployment benefits and social protections help to reduce the economic burden of unemployment for workers/employees.

Denmark could also survey as an example of negotiations over working time providing information on how collective bargaining is coordinated across the local and national levels. Recently, the national trade unions and employer federations established an agreement to reduce the standard working week from 39 to 37 hours. Greater flexibility over working time arrangements was agreed between managers and unions at the company level in exchange for this reduction. The coordination of bargaining in this manner effectively operates as a form of flexicurity.

One can observe different situation in the New EU Member States, where IR do not represent a significant role in social dialogue or in the collective bargaining. This difference with the Old Member States could be explained by the following: the evolution of trade unions in the New Member countries is rooted in the transformation process from the socialist system to a market economy system and reflects responses to social and political changes that the countries has undergone during its last 20 years of independence. As the result, for example trade unions in Latvia are in transition from the model in which a state plays a dominant role to a model of social partner unionism, and that is in common in other countries that were formerly part of the socialist system or Soviet Union’s trade union system. Decentralisation in 1991 in the Soviet Union left basic trade union organisations that for a while was maintaining the one-workplace-one-union principle. This principle has been changed, but the change did not influence positively the density of trade unions. Trade unions in Latvia remain dominant within the trade union landscape, maintain the same organizing principles, namely branch unions, which adds up to a large measure of continuity. In contrast to unions’ structure, unions’ membership has changed dramatically. For example, trade union membership in Latvia declined dramatically since the early 1990s. Overall, only small number (around 16%) of employees is members of trade unions. Structural transformation of the economic and political system in the country as well as in the organisational changes in the national economy strongly influenced this trend. Despite of the tradition of trade unions activities in the interwar period in Latvia, still following the experience of state socialism, there is a trend of the decline in membership.

Unions and membership in them are often considered as being a part the socialist past, although in that period they were unable to perform their most important tasks – providing collective representation and organising collective actions. At the same time the reasons for trade



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union decline are not only the result of changes in the union environment, one should take into account also the strategic choices made by the unions themselves. In Latvia at the national level, only one union confederation dominates – the Free Trade Union Federation of Latvia (LBAS).

Analysis of recent statistical data shows that the Latvian Free Trade Union Federation currently unites 24 trade unions. The proportion of employees that are members of unions is only 16% (according to the SCB in 2010, only 143,100 people out of an employed labour force of 953,900 were members of trade unions). Membership is higher in some areas of the public services – in general 33%, but in health and social work, and in education systems a membership could reach up to 60%, for example. [10]

The recent economic and financial crisis highlighted an urgent need to develop new policy responses to help provide social stability in the European Union and alleviate social hardship. Although labour markets deteriorated in the EU, unemployment has hit harder some countries than others. It is important to stress, that the countries with most rigid labour market regulations have suffered the sharpest surge in unemployment numbers, indicating this is an important condition that should be considered alongside stimulus programmes. The European Commission Draft Joint Employment Report (JER) 2009/2010 Report [2] reaches the conclusion that socio economic inequalities have increased in Europe. It argues that “a combination of factors (including economic restructuring associated with the move towards a knowledge economy, labour market change and redistributive policies of welfare states) account for these increases in inequality in the last two to three decades.

One of the key issues is the development of effective employment policy at the level of the EU as well as at the level of nation states and to ensure internal flexibility as the core to labour market stabilization.

A constructive social dialogue and decisive responses from all social partners are required to provide synergy between social and economic development, effective employment policy and a safety net for the future. A flexicurity approach [10] was established to conciliate employers' and workers' needs, flexibility and security, by ensuring the worker safe transitions inside the labour market, while maintaining and improving competitiveness of the companies and also preserving the European Social Model. Based on consultations with the Member States, international organisations, social partners and the academic community, the European Commission has suggested “pathways” and “common principles” in order to achieve flexicurity. In the Integrated Guidelines, Member States are asked to promote flexibility combined with employment security – ‘flexicurity’ – and reduce labour market segmentation, having due regard to the role of social analysis and dialogue over choice is the foundation for the flexicurity approach and the introduction of flexicurity principles. The viability of these choices is largely dependent on the willingness and the ability of social partners to engage and define dialogue in setting up national employment policy. Flexicurity comprises activities aimed at promoting labour market flexibility and employment security by mutual interaction. It is necessary to ensure that labour legislation and agreements are sufficiently flexible and correspond to the interests of both parties – the employers and the employees. In the case of necessity, active labour market policy must efficiently facilitate the transfer from one workplace to another or from the status of an unemployed person to employment.

The Spring European Council of 2009 recommends that Latvia enact an integrated flexicurity approach, to intensify efforts to increase labour supply and productivity by



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reinforcing activation measures and enhancing the responsiveness of education and training systems to labour market needs.

To promote implementation of flexicurity principles in Latvia, on May 15, 2009, the Saeima adopted amendments to the Labour Law, which are also related to the flexibility and security in the context of employment relations.

The need to put into practice the aims of the Lisbon Strategy and principles of flexicurity in Latvia requires ensuring effective social dialogue between the Employers' Confederation of Latvia, the Free Trade Union Federation and the government. Development of such a trend still is not included in national programmes on a large scale and does not have strong government support. Several measures have been implemented in recent years for the improvement of the social dialogue, both on the national and local levels. For example, with the help of European Social Fund financing, the social partners involved in employment partnership, include the Employers' Confederation of Latvia and the Free Trade Union Federation of Latvia, local governments and the Latvian Association of Local and Regional Governments. This partnership ensures social dialogue at the local and regional level and increases participation opportunities of social partners in the decision-making process and provision of public services. In addition, the partnership facilitates quality improvement of public services provided by non-governmental organisations.

A constructive social dialogue and decisive response from all social partners are required to provide synergies between social and economic development, effective employment policy and a safety net for the future.

Industrial relations in Latvia, for example, even before the recent economic crisis of 2008 were already highly individualised and dominated by employers.

However, the role of trade unions is more evident in the public sector and in social dialogues at national level.

In Latvia, collective wage bargaining is not a rule, but rather an exception. Similar to the other EU member States that joined the EU in the last decade, the disparity between the high level of labour legislation and the de facto liberal labour relations at the workplace also applied to Latvia.

In Latvia, the new Labour Law in Latvia is in force since 1 June 2002. The Law provides that trade unions may be formed on the basis of professional, branch, territorial or other principles. Employers shall also be entitled to form associations. The most widespread patterns in practice are the branch, undertaking and professional trade unions. The Law insures the right to join a union or also not joining or withdrawing from a union (so-called negative right). According to the Law, collective agreements and other types of agreements shall govern property and financial relations between trade unions and the employer. In most cases the relations of a trade union and employer are regulated by collective agreements.

As a result of the labour law reform a new framework for national consultation was established. The status of a social partner and social dialogue has regulated by the law "On Employers' Organisations and their Associations" (29 April 1999), and the law "On Collective Labour Agreements" (26 March 1999). These legal documents are in line with EU principles on social dialogue and social partnerships. In addition, the trilateral consultation mechanism between government representatives, the largest employers' and trade union organisations – the Latvian Employers' Confederation and the Free Trade Union Federation



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of Latvia was launched. The National Tripartite Co-operation Council and its institutions – the Sub-council for Vocational Education and Employment, the Sub-council for Labour Matters, and the Social Insurance Sub-council aimed at promoting cooperation between the social partners at national level. This institutionalization of the social dialogue helps to find a framework for agreements between all social partners in solving social and economic problems. Such framework also increases responsibility of social partners in decision-making process. Starting from 1996, the Free Trade Union Federation of Latvia and the Latvian Employers' Confederation are obliged to annually sign a bilateral social partnership agreement. The agreement allows both institutions to agree, for example, on the conditions related to level of the minimum salary level.

3. The Effect of the Current Financial and Economic Crisis on Industrial Relation in the EU

The effect of the current financial and economic crisis on industrial relation in the EU arrangements are not yet clear. Most of the European Union Member States were seriously affected by the economic, financial and social crises of 2008-2009, consequences of which continue to be felt in particular in the social area. The socio-economic situation experienced serious negative changes that threaten social cohesion in Europe. The European Commission Joint Employment Report 2009/2010 to the Council calls for measures to be taken to ensure social stability in the EU. Despite signs of economic recovery in the EU, employment prospects remain unfavourable.

Some of the EU Member States have been hit more seriously than the others. Latvia, after having the fastest GDP growth in the EU during 2004-2007, (2004 – 10.4%; 2006 – 11.9%; 2007 – 10.2% respectively experienced severe economic downturn severely affected the growth tendency in 2008. [10]

The reasons for the earlier unusual economic growth were largely due to substantial inflow of foreign capital, which stimulated domestic demand based on easy credit conditions and an expansionary fiscal stance. The economic crisis originated in the reversal of the domestic real estate boom and worsened rapidly when risk aversion became extreme on global financial markets. In 2009, GDP had fallen by 18.7%. According to the Ministry of Economy at the end of the 2010 Latvia managed to overcome the recession, and in 2011 a slow recovery started.

The economic downturn in Latvia was accompanied by raising unemployment with the labour market significantly deteriorating since the end of 2008. The lowest point was reached in the first quarter of 2010 when the employment rate shrank to 57.7% (population aged 15-64 years), and the unemployment rate of population aged 15-74 increased to 20.4%. The decreases of the employment rate as well as the decrease in the level of wages due to economic recession are the main push factors for out-migration of the labour force creating dangerous structural problems in the Latvian economy. The outflows of labour and especially of high skilled professionals negatively influence the potential for economic recovery and sustainability of the welfare system.

Significant budget consolidation measures have been taken to implement the cumulative fiscal adjustment in 2009-2010 in the amount of 10.5% of GDP. The government reduced



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public spending and budget deficit by 500 M LVL (EUR 711.4 M), in 2009 and by LVL 250 M (EUR 355.7 M); in 2010 [10] Additional cuts to public spending were taken in 2011. This trend increased the number of unemployed people and the subsequent reduction in demand.

As the result, trade unions have found it more difficult to maintain collective agreements in a more internationally competitive economic environment, it is clear that changes in employment law are a key factor explaining the declining levels of coverage and has in fact increased in recent years at a time when bargaining coverage has fallen elsewhere.

Another trend related to the crisis is the high loss of trade unions members due to redundancies, a serious decrease in collective agreements, and the comparative lack of success of public protest against austerity measures. What most trouble interviewed trade union representatives were the large number of membership cancellations due to redundancies, leading to a loss of bargaining power, resources and representatives. In comparison to its counterparts, trade unions in Latvia are hit harder by mass redundancies due to the following factors:

- collective redundancies due to the global collapse in demand took place primarily in the sectors in which trade unions are traditionally strong, i.e. manufacturing, transportation, communication;
- There is a unique practice in Latvia of employing pensioners with a ‘double’ income. When this group of employees, over-represented in the trade unions, became the first to be laid off at the beginning of the crisis, membership of company trade unions decline disproportionately.

According to the EU Lisbon Strategy “Europe 2020”, the aim should be to reach an employment level of 75% for the 20 to 64 age group; currently in Latvia this percentage is only around 58%. A gradual decrease of unemployment started only in 2011.

At the time when Latvia is slowly recovering from economic recession, and in particular, from a fall in production and unemployment, a swift and decisive response by the government is essential.

The Latvian government has determined certain activities to pursue strict and stable monetary policy and to stabilize state’s financial system. Nevertheless, it would be particularly important to coordinate financial system support measures with active labour market policies, in order to mitigate structural long-term unemployment and to avoid social tensions. The following consequences are taking place as the result of the current economic downturn and following recession:

- change in the balance of bargaining power in favour of employers;
- further weakening of trade unions due to losses in membership, as the result leading to decreased representativeness;
- capacity of trade unions’ to represent employee interests, influence changes in labour legislation, to ensure constructive social dialogue and to strengthen social- democratic policies in Latvia.

There is a possible development of social unrest related to the economic recession. The deteriorating labour market requires strategic actions.



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Conclusion

The trade unions and employers' organisations are recognised as being major interlocutors for several governments seeking to respond to the crisis. Together with monetary and fiscal stimulus policies, negotiation and consultation involving the social partners have played a significant role in limiting negative social consequences. On the whole, industrial relations in Europe have been vital. In 2010, the Cross-Industry Social Dialogue Committee adopted a joint contribution, that stressed a number of crucial for successful economic recovery objectives: reform of the global financial system, restoring and improving growth dynamics to create more and better jobs, promoting skills and entrepreneurship, revitalising the single market and developing an integrated EU industrial policy among others.

Currently trade unions have found it more difficult to maintain collective agreements in a more internationally competitive economic environment, it is clear that changes in employment law are a key factor explaining the declining levels of coverage and has in fact increased in recent years at a time when bargaining coverage has fallen elsewhere.

One of the key issues is the development of effective employment policy at the level of the EU as well as at the level of nation states and to ensure internal flexibility as the core to labour market stabilization

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COHERENT TEAM STRUCTURE IN A THREE-DIMENSIONAL CAD NEW PRODUCT DEVELOPMENT (New PD) ENVIRONMENT

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Abstract

This study examines the influence of a variable ratio between engineers and technical draughtspeople in New PD teams in a Three Dimensional CAD New Product Development environment on economic and socio-psychological efficiency. With the implementation of the 3D CAD software (Three Dimensional Computer Aided Design) the world of engineers seemed to become a completely new and fascinating one in which the engineer is a 100% creative part in the New PD process of an innovative company – with all supporting activities taken over by a marvelous software, automatically and completely [1, p. 11]. Technical draughtspeople who did supporting activities so far declined rapidly and engineers have more or less lost their “right-hands”, the technical draughtspeople [2], especially in mechanical development departments of medium-sized companies. Recent analysis of the workload of engineers under 3D CAD-conditions revealed – unsurprisingly – that at least one third of the hours of work are related to supporting activities, to distributable work [3, p. 189]. According to that situation these companies more or less lost the advantages of coherent work distribution and as a consequence of that the opportunity to overlap creative and routine activities between engineers and technical draughtspeople. Based on the discussion of two important properties of the information to be exchanged, sensitivity and evolution [4, p. 440], this paper will show how overlapping can be processed from the creative to the executive phase between engineers and technical draughtspeople. Coherent work distribution plus overlapping procedures should finally increase the economic and socio-psychological efficiency of the development department and the company as a whole, measured by lead time, costs – including opportunity costs, quality and various soft facts. The subject of this paper is, to elaborate the reasoning for a cause-effect analysis which is in preparation by the author (see Addendum).

Research Question

The person who is faster in presenting convincing concepts determines the customer’s mindset and has therefore a better chance to succeed in the current, hard competition. In the background of that, the ability to transfer new ideas to commercial products in a timely



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manner is an important competitive factor with high influence on the corporate success today [5, 6]. A survey on the topic of problems concerning research and development, held by Prof. Dr. Klaus Ehrenspiel, showed the following: the dominating problem of the development process where all members of staff, every company, all hierarchical positions and every line of business meet are project durations and deadlines [7]. In departments concerned with the development of products, reaction time, processing time, lead time and innovation performance are being influenced by the availability of qualified members of staff. On the other hand members of staff within the development departments are comparatively expensive. The high percentage of qualified employees – more than half of them (55%) are academic personnel, around 20% are technician [8, p. 178] – means high personnel costs for a company. Owing to a tremendous deficit of qualified employees, which is already now being lamented and which will probably even increase [9; 3; 8, p. 479], personnel costs for this group of employees are likely to incline in the following years. That is why the appropriate number of personnel will become even more and more expensive, but in the meantime it is one of the most crucial basic conditions of the ability to innovation [10]. In the face of the importance of high costs for the general competitiveness and innovativeness, new ways of thinking have to be taken into consideration here. One possible approach towards an economical and socio-psychological efficient development process in a New PD environment within a 3D CAD engineering environment could be the consistent assignment of technical draughtspeople in mechanical development departments in medium-sized companies who would relieve the development engineer from all part and assembly orientated documentation. According to the BMBF [11, p. 30] is the ability to innovation of small and medium-sized companies especially strong related to the sufficient availability of qualified and experienced members of staff. Not only is the number of qualified staff in medium-sized companies for the above mentioned reasons small, but it is also getting even shortened through a typical form of work organization. Not – as you can often register in large companies – specialization is the problem, but mainly the engineers' overloading through a lot of organizational and auxiliary tasks. The development engineer has to fulfill several tasks at the same time: he works in the sales; accompanies the manufacture and assembly or the work preparation for problems with new products, is responsible for the order of tools plus machines and generates nearly the whole product documentation [7, p. 277]. Interruptions and unforeseen tasks are characteristic for his or her daily routine. Time for the actual product developments is drastically restricted. Additionally there occurred due to the 3D CAD growth another auxiliary task to engineers in development departments of medium-sized companies. The 3D CAD revolution led to a personnel structural change in medium-sized mechanical development departments, which are responsible for the development of new products. Medium-sized companies were successfully conveyed that engineers can – on the side – easily take over product documentation with this 3D CAD software. Technical draughtspeople who did this kind of work so far declined rapidly. 1999 the product development industry had 143.483 technical draughtspeople under social insurance contribution – 2007 there were only 118.513 left. The population index declined from 100 in 1999 to 83 in 2007. In the same time frame the population of engineers increased from 637.935 to 682.384 people under social insurance contribution. The population index increased from 100 in 1999 to 107 in 2007 [12]. As a consequence the overall ratio between drafters and engineers in Germany went from 0.23 in 1999 to 0,17 in



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2007 and the population index falls from 100 in 1999 to 77 in 2007. The decline in medium sized companies was even worse. As a matter of fact the 3D CAD software cannot take over the product documentation automatically and the engineer in medium-sized companies usually these days creates the documentation (mainly part and assembly drawings) which take intensive time consumption. One of the engineer's main tasks lies in the conceptualization of future systems. This means it is rather a complex process which requires both analytical skills and creativity to generate innovative solutions for the next generation of commercial products. Developing new concepts is a creative field of activity where engineers use their knowledge well-directed in order to give systems particular functions, forms and traits. Owing to the above described developing engineer's multi-functionality, in practice proven concepts which offer with given resources the best possible solution are often preferred [7]. These exploitation processes with their unsound fixation to existing solutions is one big hurdle for innovation [13]. The traditional main task of technical draughtspeople is the drawing up of norm-proven technical drawings as draft, itemization or assembly drawing in form of outlines, details, views and sections. Besides they write technical documentations and carry out project entries, evaluations plus calculations. This paper is understood to be one of various components to provide the evidence that a coherent team structure is a prerequisite for the application of modern management methods, such as concurrent, overlapping project processing. And these methods should enable mechanical development departments of medium-sized companies within a 3 D CAD engineering environment to carry out product development efficient, fast, innovative and competitive.

The paper will analyze the method of overlapping, identifying a kind of a missing link in the mechanical development departments concerned, compare sequential vs. overlapped mode, introduce the notions of fast and slow evolution and high and low sensitivity, present a framework of four types of overlapping, that may help project managers to decide for the applicable extension of overlapping in a special environment, present the conclusion of that analysis and indicate the structure of a causal model in preparation.

The concrete research question is: Does the employment of technical draughtspeople in mechanical development departments of medium sized companies within a 3 D CAD engineering environment increase the economic and socio-psychological efficiency? The subject of this paper is, to elaborate the reasoning for a cause-effect analysis which is in preparation by the author (see Addendum).

Overlapping; A General Management Method

Let us think of the activities to be undertaken by a top manager after having received an appointment with the German chancellor: The top manager will not at all wait for all detailed information necessary for this meeting, he will immediately pass all information available at this moment to his supporting staff (secretary etc.) in order to start with the arrangements – for an escorting team, for presentation documents, for a flight etc. And he will try to get further details which he continuously will make available to his staff in order to have a successful meeting. This example demonstrates overlapping activities in its simplest way: overlapping can be found everywhere, in commercial or private environment; overlapping give all project members more time to find good, best solutions; overlapping is applicable for project members



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of different expertise; overlapping can be efficient in single working unit as well as in big organizations, in every cooperative and communicative process...

Scientific paper on overlapping processes often concentrate their research on new development activities as these are commonly understood as crucial for the success of a company in a rapid changing market and the cause-effect relations are obviously not as simple as in our overlapping story above – though the method is not at all restricted to that processes.

One crucial direction of New PD are attempts being strongly influenced by Japanese way of proceeding to shorten development times of products through overlapping development activities for the product and the overall New PD process. Additionally to the avoidance of downtime further potentials in proceeding time have been identified and harnessed. It is possible to link pairs of activities by starting first actions of a succeeding activity even with only incomplete information gotten from its prior activity and to avoid later delaying touch up through intensive co-operation in interdisciplinary teams – quite similar to the above overlapping story. Simultaneous Engineering, Concurrent Engineering and Integrated Product Development are the key methods of overlapping procedures. Overlapping, defined as the partial or full parallel execution of tasks (Figure 1B, 1C) and functional interaction, meaning the degree of information shared between business functions, became more and more popular for many companies which act in a fast moving environment. With the new overlapping mode of New PD activities, these companies think to have a substantial advantage in lead time.

The flow of information and the process execution in practice is largely sequential, with information being generated and finalized by the upstream activities before being absorbed by the downstream development activities [4]. That means in New PD – first (upstream) the preparation phase then – downstream – to the creative phase and at last – downstream – to the execution phase. But also in the three New PD phases the different tasks can be done sequential or overlapped, for example within a development project by allocating various components to one (sequential) or to various engineers (overlapped), or by transferring finalized (constructed) part-information to technical draughtspeople for documentation progressively (overlapped) – or not (sequential). At the first glance the overlapping mode seems to be faster. Actual researches are concentrating on various selected aspects of overlapping, such as on dynamic rework in overlapped schedules [14], on acceleration model for projects with known rework fraction caused by overlapping [15], on measurement of the coupled strength of tasks [16] or on a systematic approach to reduce costs and risks [17]. All these papers are more or less based on the seminal work on overlapping strategies by Krishnan et. al., “A model based Framework to overlap product development activities” [4]. They provide a framework to help designers or managers to decide when and how to overlap pairs of activities with the intention to reduce product development lead time and to ensure at the same time that adverse effects on product quality and development effort are minimized. Subject to this paper are creative and routine activities in New PD. The idea of this paper is to demonstrate that overlapping activities in the execution phase with coherent utilization of supporting staff is a method to decrease development lead time and hence development costs and it will finally increase the economic efficiency of the development department and the company as a whole. Based on an assessment of the pros and cons of concurrent / overlapped engineering this paper will show how overlapping can be processed efficiently from the creative to the execution phase, respectively from the task of engineering design to part and assembly documentation, of New PD between engineers and drafters.



Sequential vs. Overlapped Mode

It is commonly agreed in theory as well as in practice that speed is the key point for success in commercial competition [5, 6] and the "intense competition forces manufacturing firms in many industries to develop new, higher quality products at an increasing rapid pace" [4, p. 1]. And as it is also an established fact that projects are almost always behind schedule [7], "overlapping product development is an important component of concurrent product development that can help firms to develop products faster" [4]. Imai et. al. observed that faster product development processes are more overlapped [18], but they do not give any explanation how to overlap the New PD process. Furthermore they imply that all activities can be carried out concurrently. Clark et. al. recognized that frequent face to face and bilateral communication of preliminary information makes overlapping more easily [19] – instead of reserved handling with incomplete information. "However, since product development activities may be coupled in complex ways, overlapping interrelated activities can present many difficulties. Without a careful management of the overlapped product development process, the development effort and cost may increase and product quality may worsen" [4, p. 437]. These are undoubtedly serious concerns in respect to any overlapped project processing, as e. g. in the area of marketing, capital investment etc. Therefore Krishnan et. al. designed a model which goes beyond the common recommendation to simply overlap activities as much as possible. He describes four types of overlapping based on two determining properties of a design process, on "evolution" – a measure for the speed of upstream information generation – and on "sensitivity" – a measure for additional downstream efforts due to changes of upstream information – and illustrates the model with industrial applications. These terms "evolution" and "sensitivity" and the four types of overlapping, the Iterative Overlapping, the Divisive Overlapping or Non Overlapping, the Preemptive Overlapping and the Distributive Overlapping must be explained and analogies to the development tasks between engineers and drafters respectively creative and routine activities will be shown.

Acceleration can be reached by overlapping development activities in combination with a more frequent exchange of preliminary information (Figure 1).

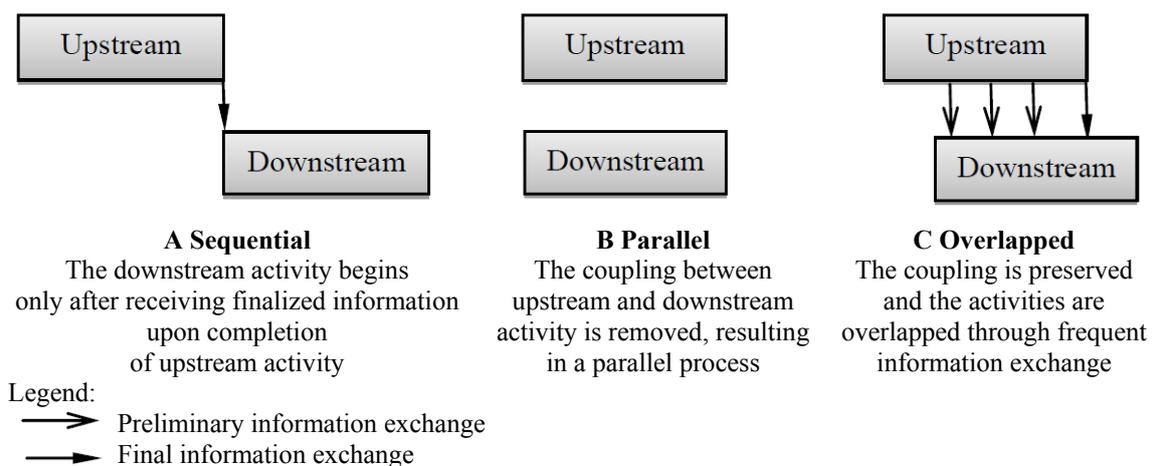


Figure 1. Sequential, Parallel and Overlapped Processes [4]



Contrary to that method “is a one-time transfer of finalized information – a sequential process” [4, p. 437]. In a sequential process the downstream activity does not begin until the upstream activity has finalized and completed the information. Whereas the overlapped process begins earlier by using preliminary information (Figure 1C). This overlapped mode needs a disaggregation of the exchanged information. But “when preliminary upstream information is utilized by downstream activity too early, further changes have to be incorporated in time consuming subsequent iterations, resulting in an increase in the downstream duration and effort. On the other hand, when parts of the upstream-generated information are finalized early, the upstream activity loses the flexibility to make future changes along these dimensions” [4, p. 438]. Convinced of a solvable imbalance in respect to the allocation of personal resources in mechanical development departments within a 3 D CAD environment, which is subject of this paper, the discussion of overlapping development activities must be examined in detail to see if there are any combinations in information sharing which are suitable and economically efficient between engineers and technical draughters in a 3 dimensional engineering environment.

Introduction of Fast and Slow Evolution and High and Low Sensitivity

From the information processing point of view “Individual development activities are themselves viewed as information processors, receiving input information from their preceding activities, and transforming this input information into a form suitable for subsequent activities. The sequential process assumes that the upstream-generated information is available for downstream use only at the completion of the upstream activity.” [4, p. 440]. During the upstream activity the development process continuously narrows and refines the information from an initial rough assessment of a design parameter to a final value. For that refinement process from the preliminary to the final value, Krishnan et. al. use the term evolution [4, p. 437]. In the metaphorical sense he compares the information processing progress with a hopper/funnel from a large diameter (begin of the activity) to a final point, which represents the exact information for the downstream and subsequent New PD activity. The performance of this process can vary from fast to slow, depending of the character of the individual development project. The term fast evolution explains a redesign development project. The components and the technology are mostly known. That means information in the creative and the design phase of New PD can be generated fast. In other words – major changes happen early, the exchanged information gets close to its final form rapidly and can be frozen and passed downstream early in the upstream process without much quality penalty for the upstream activity. The term slow evolution on the other hand explains an innovation, a product using new components and technology. Here the information generation starts slowly at the beginning of the creative and the design phase and increases rapid to the end of that phase. The modification of the interchangeable information increases as the upstream activity progresses. In this case, finalizing upstream information early in the upstream process either would be impossible or would entail a huge quality penalty for the upstream activity [4].

In the overlapped process, the upstream activity shares preliminary upstream information at defined breakpoints with the downstream activity (Figure 1). The downstream activity begins to perform its normal development iteration using the exchanged information.



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This iteration process is to be repeated after the next releases of the meanwhile improved information of the upstream activity until the final value is available. Under this aspect the downstream activity has – as Krishnan et al. are calling it – a particular sensitivity, ranging from high to low. If substantial changes can be accommodated quickly by the downstream activity the downstream sensitivity is understood to be low and if the incorporation of changes in contrast is joined with time consuming rework the downstream sensitivity is understood to be high.

Whether overlapping can be installed as a measure for improving lead time etc. depends on a careful assessment of the particular project, development or any else, which is argued in more details in the next section. Since every product development project creates a different number of new components there is a good chance in a redesign construction to transfer every single component information parallel/overlapped from the engineer to the technical draughter to produce part and assembly drawings/documentation which serve worldwide as documents of order – provided a supporting staff has been set to engineer's side. On the one hand, as already stated above, normally the evolution in redesign construction is fast and major changes are not expected at the end of the engineer's – upstream – activity, on the other hand the downstream sensitivity is low as the main structure remains, little – and also bigger – changes can be easily accommodated / reworked by the technical draughter's – downstream – activity, because the drawing is already created. When a part is constructed and ready to take in orders, it is basically complete and changes keep within small limits. As a result, the duration of the individual activity may actually increase through overlapping (more communication and iteration), while the total project lead-time can decrease due to the concurrent work on different activities [14]. To compress schedules by overlapping is very likely.

The Four Types of Overlapping

Krishnan et. al. illustrated and substantiated their model with application to the design process of an automobile door panel and door handle (with the overlapping pair of activity: engineering design and prototype development) and with application to the development of an electronic pager (with the overlapping pair of activity: industrial design and engineering design). The automobile example for instance resulted in a lead time reduction from 18 plus 4 weeks (sequential) to 18 plus 1 day (overlapped), which is a substantial contribution to overall cost of the development of an entire automobile, estimated to at least 1 million \$ per day [4, p. 446]. Figure 2 shows the four extreme situations of overlapping which can occur – fast or slow upstream evolution and high or low downstream sensitivity [4, p. 448]; the original figure is expanded by text boxes and additional arrows to highlight the engineer – drafter – overlapping option.

Iterative Overlapping: When upstream evolution is slow and downstream sensitivity is low, “it is possible to commit downstream resources based on preliminary upstream information” [4, p. 448]. Even large changes in the – slow – upstream exchanged information have no or marginal influence on the downstream activity. In that slow upstream evolution major changes happen late in the upstream process and the information cannot be finalized until the completion of the upstream activity. Early information finalization of the upstream activity may result in a large quality penalty for the upstream activity. That means, when information is



finalized early and committed with the downstream activity, there is no possibility to take in better concepts in the downstream activity. However as downstream sensitivity is low iterations for changed parameters are easily performed. That development situation appears, when a completely new product comes into being, but for example manufactured with known technologies [4].

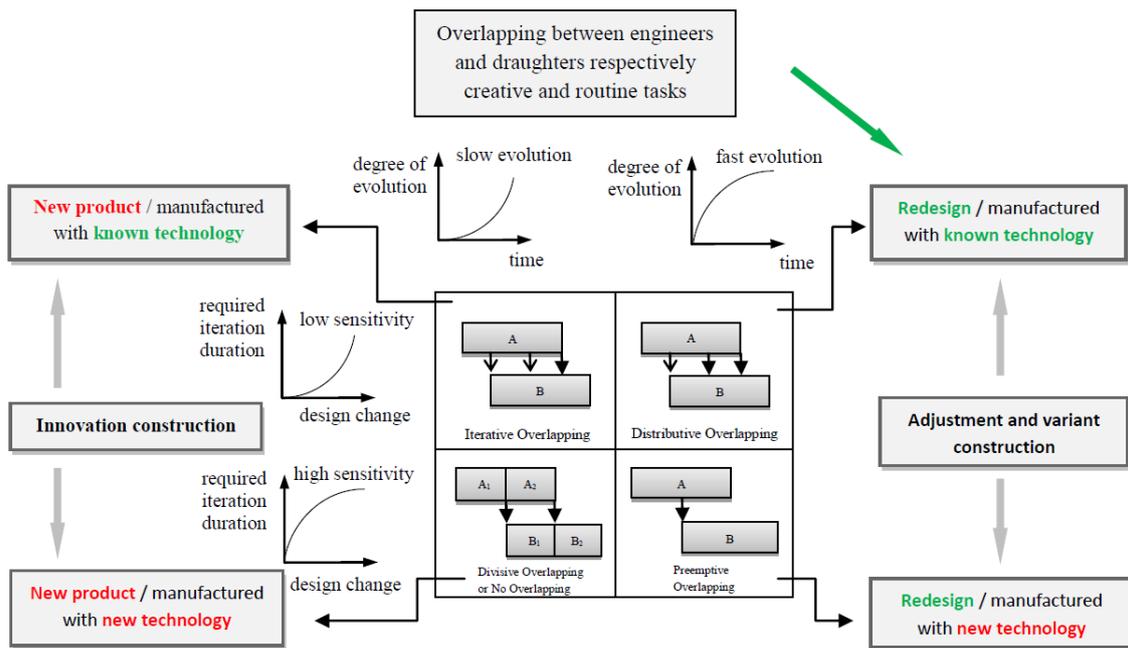


Figure 2. Iterative Overlapping, Distributive Overlapping, Divisive Overlapping or No Overlapping and Preemptive Overlapping [4]

Divisive Overlapping / No Overlapping: When upstream evolution is slow and downstream sensitivity is high, it is not desirable to start downstream activity with preliminary information, because major changes happen late in the upstream process and the duration of iteration loops in the downstream activity is too high. That development situation appears, when a completely new product comes into being with new manufacturing technologies. An exception might be the possibility of dividing the complete upstream activity and identifying within the slow process parts of fast evolution [4].

Preemptive Overlapping: When upstream evolution is fast and downstream sensitivity is high the upstream information can be finalized early – parts of the problem solving are accelerated – without much quality loss. This situation would help to reduce development time by starting the downstream activity earlier in time with preemptively frozen information of the upstream activity. That development situation appears, when a product redesign with new manufacturing technologies accrues [4].

Distributive Overlapping: When upstream evolution is fast and downstream sensitivity is low, it is possible to start downstream activity with preliminary information (no need for



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freezing early) and continue with the onward progress of the New PD process with preemptively finalized upstream information, because large changes in the upstream process happens early and finalized information – before the end of the upstream activity – do not lead to huge quality losses in the upstream process. The low sensitivity means, that large changes in the magnitude of the upstream information exchange do not entail large iteration loops. Both activities, the upstream and the downstream, are contributing to an efficient overlapping process, the involvement is distributed [4]. That situation is most favorable for overlapping. – Transferred that idea to the activities from the creative to the execution phase of New PD, respectively engineering design to part and assembly documentation – the work sharing between engineers and technical draughters means, that when part and assembly construction/design is widely progressed through the engineer the drawing documentation, executed through the drafter, can start. That development situation appears, when a product redesign with known manufacturing technologies accrues and that complies with a variant construction, the most frequent construction worldwide and – it complies explicitly with the subject to that dissertation.

Conclusion – a Missing Link

There is no generalization possible, but if overlapping is approached in a careful and systematic manner, respecting possible quality, cost and risk impacts, a reduction in lead time seems to accrue largest [17]. A few figures may demonstrate the potential: Our standard project takes about 12 man/months with a supporting labor portion of about 4 month (8 month creative: 4 month supporting), it is one with about 20 new parts and 200 new drawings and the drawing part of the supporting portion is about 75% say 3 month or 60 working days, which means one part consumes about 3 working days. These figures imply under optimal overlapping conditions the option for a reduced lead time of (8+1) months + 3 working days = 9 months +3 days – vs. 12 months (with 1 month for various non-documentation, supporting tasks – and 3 days after the completion of creative activity for last part).

The overlapped procedure in general seems more adequate for an inherent iterative development process than a one shoot finalized information exchange like it is assumed in project management. In the New PD process preliminary information exchange is useful and profitable and especially the overlapped activities between engineers and drafter should lead to economic efficiency, measured with hard facts – lead time and costs. But as far as mechanical development departments in medium-sized companies within a 3 D CAD environment are concerned, there is, what I would call, referring to the term evolution in the original sense, a missing link:

One tricky outcome of the 3D CAD revolution was, as already outlined, the dramatic change of the personal structure. With 3D CAD the engineers in these companies have more or less lost their “right-hands”, the technical draughtspeople. The massive drawing documentation work was creeping towards the engineer as the 3D software isn’t efficient and able enough for an automated part and assembly drawing generation. According to that situation and apart from the advantages and disadvantages of concurrent/overlapped engineering these companies more or less unconsciously lost the option to overlap creative and routine activities between engineers and drafters. And exactly one of the major results of that analysis is that overlapping is very



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preferable for the examined situation. Under that circumstance the drafters are actually the missing link which stops the evolution towards an efficient use of professional methods and expertise for New PD in mechanical development departments of medium sized companies within a 3D CAD engineering environment. In addition, what makes the prospects even worse, there is no chance to overcome that gap by employing more engineers, what might be seen as an option to get more flexibility in rapid changing markets. On the one hand the growing shortage of engineers is hardly under dispute. On the other hand, and not only based on that perspectives, it is not the intention of an engaged engineer to loose – on a permanent basis – too much time with supporting activities, valuable time which is required to apply and to improve his personal profession in the preparation and the creative phases of New PD. There are good reasons for the assumption that this understanding of professionalism we express for the highly educated engineers is also applicable for all other highly educated experts. A respective investigation is recommended. (Please recall our overlapping story.)

It looks as if efficient New PD is actually not possible without the coherent employment of supporting staff. Following that argumentation the basic hypothesis can be formulated: The higher the assignment of technical draughtspeople for the generation of technical drawings in mechanical development departments of medium-sized companies within a 3D CAD environment, the higher the increase of economic and the socio-psychological efficiency.

The subject of this paper was, to elaborate the reasoning for a cause-effect analysis which is in preparation by the author (see Addendum).

Addendum

The Causal Model for socio economic analysis, which is in preparation, shows possible cause-effect relations between different team constellations in New PD teams under 3D CAD conditions and the economic and the socio-psychological efficiency. The structural dependent variable Y, the economic efficiency, will be measured by the endogenous latent variables as the lead time, the personal cost, the amount of concepts and the number of drawing errors. The structural dependent variable Z, the socio-psychological efficiency, is indicated by the engineer's methodical responsibility during creative phase of product development and the engineers/drafters contentment with the employment. Subject to the iterations, respectively manifestations for the independent structural variable X (variable ratio between engineers and draughtspeople in a defined project – variable team structure), are the distribution of drawings which must be generated in a defined standard project, the team structure and the education level of the team members matching with the development task. By arranging stress tests the model must prove its reliability. If the real environment and the model match for selected parameters, we can draw the conclusion that the model reflects the aspects of reality sufficiently. Two methods will be used to prove the derived hypotheses. On the one side a broad-based study is in preparation in medium sized companies using questionnaires. Participants of recent new product development projects (variant constructions) – engineers and technical draughters – will be asked accordingly to falsify respectively verify the model. On the other side defined standard projects are being executed at various levels of selected independent variables in an experimental field study.



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CRITICAL FACTORS OF SUPPLY CHAIN MANAGEMENT AND STRATEGIES IN THE FOOD INDUSTRIES

– Development of a Decision Support System for Strategic Management of Agricultural Raw Material Culture –

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Keywords: Organizations and Markets inside Ecological Revolution

Abstract

Procurement of goods is increasingly becoming a central theme of our daily life. With the growth of world population and the climate change of our time the subject is omnipresent.

Currently food is often traded through agencies and historically marketplaces. Sometimes it seems that there is no regulation by the lack of market expertise and international regulative. But it is vital that the distribution and price control is placed under supervision. Such Claims as required by various organizations.

Creation of an optimization model with the result of a decision aid for possible introduction of restrictions and for a recognizable impact on the food trade!

What factors should consult organizations such as WHO, FAO, etc. in order to decide possible sanctions in world trade and what action or non action for an optimal distribution, etc. must be taken. This model should be created to explain the scarcity degree of agricultural resource and thus legitimize any penalties or not.

In the top metalevel is the “Metaziel” of sufficient supply, broken down to the lowest metalevel to the optimization of the profits by producers and suppliers.

These limitations are to be used to address a global issue of food allocation, while creating an optimization model for decisions by restrictions of large organizations.

Optimization model as a result: Decision support for possible introduction of restrictions or rejections and thus detectable effect on the food trade in relation to:

- Efficiencies;
- Equities;
- Profits;
- Distributions.



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Introduction – Markets and Organisations Inside the Ecological Revolution

“No Single date can be pinpointed as the beginning of serious thinking about how organizations work and how they should be structured and managed. One can trace writings about management and organizations as far back as the known origins of commerce. A lot can be learned from the early organization of the Muslims, Hebrews, Greeks and Romans. If we take the time, we could make the case that much of what we know about organization theory has its origins in ancient and medieval times. After all, it was Aristotle who first wrote of the importance of culture to management systems; it was Taymiyyah who used the scientific method to outline the principles of administration within the framework of Islam, and Machiavelli who gave the world the definitive analysis of the use of power.” [Jay M. Shafritz and J. S. Ott, *Classics of organization theory*, 3rd, Pacific Grove, CA: Brooks/Cole Pub. Co., 1992]

When talking about food markets (supply and demand) meet different types of organizations:

- Provider;
- Demander;
- Markets;
- Dealer;
- Regulators;
- Legislature.

This project aims to develop a model that combines all these interests and ensure fair distribution, without having to regulate the price. This is the most important criterion that you know how much of a raw material is available, because it controls the supply and demand and hence the price.

Therefore, an optimization and management tool for that decision makers in organizations should be created, so they can get an overview of the IST situation.[Adam Smith and Edwin Cannan, *The wealth of nations: Adam Smith; introduction by Alan B. Krueger; edited, with notes and marginal summary, by Edwin Cannan*, Bantam classic, New York, N.Y: Bantam Classic, 2003]

Statement of the Problem – The Battle of the Organizations and Individuals for the Agricultural Resources

Every day new horror stories let us scare up...

The number of people on this earth is increasing, but on the other hand raw materials, especially food, are distributed unequally.[Alexander Sarris, Piero Conforti and Adam Prakash, “The use of organized commodity markets to manage food import price instability and risk,” *Agricultural Economics* 42, no. 1, 2011]

A lot of people don't get any of them, or the prices where you still can get them are growing and growing and growing... [ORF.at, *Warnung vor globaler Nahrungsmittelkrise*, news.ORF.at, <http://orf.at/stories/2008198/2008197>, May 8, 2011]



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So we all believe...

If humans do not have enough to eat or drink, they would become "uncontrollable". It can not be that many countries are not available to global goods. [ORF.at, *Warnung vor globaler Nahrungsmittelkrise*, news.ORF.at, <http://orf.at/stories/2008198/2008197>, May 8, 2011]

With the delivery of food and beverage people will face survival. It may not be that the levy of a few controls and is impeded from profiteering. [Lorenzo Cotula, *Land grab or development opportunity?*, IIEE, 2009]

A lot of documentations, broadcasts and articles of various media and papers are documenting this. [ORF.at, *China heizt Kampf um Rohstoffe an*, news.ORF.at, <http://orf.at/stories/2008198/2008197>, May 8, 2011]

So some people and organisations go a further step with their allowances...

A uniform and controlled release must be created; otherwise we face a growing problem. A shortage of plans for other developments, people can do in the back. If the people do not eat or drink enough, they also do not need further plans and lose ambitions and his ideals and standards. [ORF.at, *Yes We Will!*, news.ORF.at, <http://orf.at/stories/2008198/2008197>, May 8, 2011]

The UN Food and Agriculture Organization (FAO) in early June 2010 in their semi-annual "Food Outlook" recognizes that the cost of food imports are rising, particularly in the poorest countries. This now threatens a famine in Africa, because the poorest countries pay more and more for imports. More particularly, the financial burden on food imports as calculated by the UN organization in the world this year to amount to about \$ 100 billion (81.8 billion euros). [OECD Publishing, *OECD-FAO Agricultural Outlook 2010*, Paris: Organisation for Economic Co-operation and Development, 2010]

In return, however, new debts are created to import the daily needs for the people. In particular, the ten million people in the eastern Sahel in West Africa, according to the UN World Food Programme (WFP), are facing a period of starvation. Already, more than one billion people suffer from hunger and malnutrition. Therefore, on a three-day "Conference on Nutrition", FAO, with representatives from the 192 member states in November 2009 set to a five-point plan against hunger. [OECD Publishing, *OECD-FAO Agricultural Outlook 2010*, Paris: Organisation for Economic Co-operation and Development, 2010]

But there are not only reasons of force majeure, such as crop failures and weather conditions, but also political miscalculations and bad decisions, as well as illegal price fixing for ever higher prices. [Björn Lomborg, *Cool it!: Warum wir trotz Klimawandels einen kühlen Kopf bewahren sollten*, 1st ed., München: Pantheon, 2009]

But the increase in biofuels demand raises prices for cereals and rice. More and more people can afford less and less food. A food crisis is imminent, thus expanding the common social life more and more threatened.

In countries like Egypt the meat prices have risen by 50% and threatens riot. And an end to price increases is not clear, as the Food and Agriculture Organisation (FAO) points out. But the fault lies not only in the interests of environmental conditions, but increasingly in the wrong policy.

Price of rice doubled!



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Other countries in Africa are worse affected by the rising prices. Thus, the price of a kilogram of rice in Mauritania, West Africa, doubled in the last three months. At the same time in Zimbabwe, the price of corn increased by 59 percent and in neighbouring Mozambique by 57 percent. In the Democratic Republic of Congo, a portion of fish a year ago cost 10 dollars (8.3 Euros), today it is 25 dollars (20.8 Euros). For a 25-kilogram bag of rice, people must now pay 30 dollars – not for many financially viable. The policy is completely overwhelmed with the demand increase in the consumer society and the related allocation problems. [ORF.at, Reis und Fleisch bald unerschwinglich, news.ORF.at, <http://orf.at/stories/2008198/2008197>, May 8, 2011]

But what is the truth...

Famous critics, such as Bjorn Lomborg, criticize these negative attitudes and campaigns. [Bjorn Lomborg, *Apocalypse no! Wie sich die menschlichen Lebensgrundlagen wirklich entwickeln*, 1st ed., Lüneburg: Zu Klampen, 2002]

In addition to individual Traders there are many other winners by rising commodity prices. Therefore, many welcome this development because the higher commodity prices have also reached to a certain extent of producers. A lot of people (Indians, Chinese,...) can afford more than ever before. [derStandard.at, *Entwicklungsländer holen auf – Arzt und Patient – Gesundheit*, <http://derstandard.at/1288660105435/Fettsucht-Entwicklungslaender-holen-auf>, accessed May 8, 2011]

Many questions are open now...

Do we lose control over our food supply chain and is there no future for food for all?

Do always get less people something to eat in the future?

Or is that only a horror scene, because with fear its easy to earn money...

True to the motto: “If people have fears, they can be controlled better.”

In my dissertation, these developments should be considered from the historical view and compared with current developments. How do these current food stock and different organizations function and who controls them, who are the profiteers and who's ambition?

Through case studies the theme food should be evaluated and restructured in this work. [Josef Zelger and Martin Maier, *GABEK: Verarbeitung und Darstellung von Wissen*, Innsbruck: StudienVerlag, 1999]

Solution and answers should be found...

Creation of an optimization model with the result of a decision aid for possible introduction of restrictions and for a recognizable impact on the food trade! What factors should consult organizations such as WHO, FAO, etc. in order to decide possible sanctions in world trade and what action or non action for an optimal distribution, etc. must be taken. This model should be created to explain the scarcity degree of agricultural resource and thus legitimize any penalties or not. In the top metalevel is the “Metaziel” of sufficient supply, broken down to the lowest metalevel to the optimization of the profits by producers and suppliers; These limitations are to be used to address a global issue of food allocation, while creating an optimization model for decisions by restrictions of large organizations.



Literature Review

The media circulate a ready-made image and it will be frequently published just more of the negative aspects. This will illustrate the following items.

An article by Eva Obermüller shows clearly that too free access to trade can lead to problems: "Free market led to hunger in Africa. Trade liberalization has, despite the best intentions, brought in some African countries more harm than good. According to a new study the free market led to a decline in food production and to more poverty and hunger". Furthermore, the lead author claims that in many regions of the earth higher prices lead to unrest, as people there spend most of their money for food; mainly affected are the West African countries.

Often there are states that had in recent years increasingly relied on imports and therefore a dependency is created. As long as prices were low, problems arise, but in recent years as commodity prices have increased, this situation was to fall. The high prices led to shortages and riots, often with unfortunately, more and more dead. [ORF.at, *Freier Markt führte in Afrika zu Hunger*, news.ORF.at, <http://orf.at/stories/2008198/2008197>, May 8, 2011]

But which statements and views lead us now to the right conclusion when we bring together all these observations and studies?

This question, if food is really scarce, or whether the scarcity is given as a false front in order to generate more profit, or if such higher prices now are really for the producers of goods and whether the actual situation is much worse than it was in the past, will explore this thesis.

Methodology

Procurement of goods is increasingly becoming a central theme of our daily life. With the growth of world population and the climate change of our time the subject is omnipresent.

Currently food is often traded through agencies and historically marketplaces. Sometimes it seems that there is no regulation by the lack of market expertise and international regulative. But it is vital that the distribution and price control is placed under supervision. Such Claims as required by various organizations.

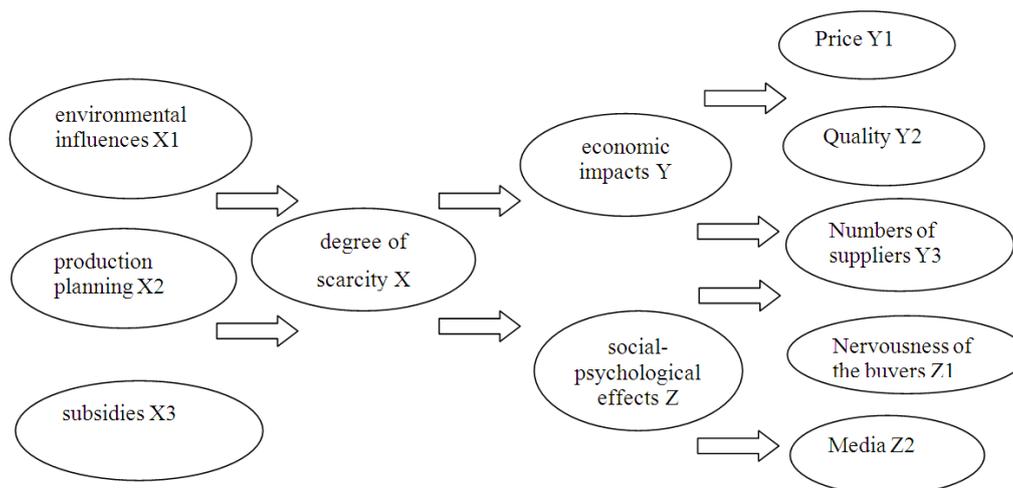


Figure 1. Optimization model



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Creation of an optimization model with the result of a decision aid for possible introduction of restrictions and for a recognizable impact on the food trade! What factors should consult organizations such as WHO, FAO, etc. in order to decide possible sanctions in world trade and what action or non action for an optimal distribution, etc. must be taken.

This model should be created to explain the scarcity degree of agricultural resource and thus legitimize any penalties or not. In the top metalevel is the “Metaziel” of sufficient supply, broken down to the lowest metalevel to the optimization of the profits by producers and suppliers.

These limitations are to be used to address a global issue of food allocation, while creating an optimization model for decisions by restrictions of large organizations.

Structural equation model as an instrument:

H0 = The higher the degree of scarcity, the higher the economic impact;

H1 = The higher the environmental influences are, the higher the price;

H2 = The higher the production planning, the higher the quality;

H3 = The higher the subsidies, the higher the number of suppliers;

H4 = The higher the degree of scarcity, the higher the Nervousness of the buyers;

H5 = The higher the degree of scarcity, the higher the influence by the media.

Conclusions

Technical results

We pursue further the issues on which markets are the above foods offered and work these structures and systems?

By which these factors are influenced and how and what factors developed these forms of trade?

In this study, all information should be collected on the basis of case studies and compared to obtain an objective picture of the situation.

This work is considered under the following questions:

How do the food markets, the allocation and the system of organizations of their property work?

With the following secondary questions:

- What factors control these markets and organizations?
- Is intervention by public institutions and organizations like the WTO in the future necessary?

Personal results

This would be another step in my life, I have to go to learn more about food and its distribution and the involved organizations; I would like to develop myself more and more in the field of international food allocation and organizations and distribution of goods. An area whose future relevance will increase and my activity can be a good contribution to the socio-political responsibility.

Accepting responsibility and to shape the future in a positive way, for me personally it would be very important.



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HUMAN CAPITAL AND SUSTAINABLE DEVELOPMENT

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Keywords: human capital, sustainable development, Human Development Index, sustainable human development

Abstract

Human development is both the goal and the means of economic development. But the term “sustainable economic development” is known and used in modern economic literature rather than “sustainable human development”.

Only in recent years, literature on social and economic development has emphasized increasingly the process of human development. Moving away from the identification of development with statistics on economic growth, this approach stresses the necessity to place human beings at the centre of development. The Human Development Index (HDI) is used now as a reliable indicator of human development [1].

Without sustainability, human development is not true human development. If human development means enabling people to lead long, healthy and educated, then sustainable human development is about making sure that future generations can do the same.

The theoretical foundation of human development is the theory of human capital. This theory needs rethink in accordance with current situation. Human capital is the main recourse of the global knowledge-based economy, and it is created by education. Thus, the concept content of education should answer the purposes of development.

Development can be seen, as a process of expanding the real freedoms that people enjoy...

Development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or over activity of repressive states.

Amartya Sen
Development as Freedom, 1999

Introduction

The problem of sustainability is central to scientific and public discussions of recent years. There are a lot of different aspects of sustainable development need to be discussed.



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Among them they is the interdependence of human capital and sustainable development. The aim of this paper is to analyze features of human capital and numerical measure sustainable human development.

From Sustainable Development to Human Sustainable Development

The term sustainable development was coined in 1980 by the environmental nongovernmental organization International Union for the Conservation of Nature and popularized by the 1987 Brundtland report *Our Common Future*, which defined sustainability in terms on intergenerational equity as follows: “humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without comprising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits – not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effect of human activities” [2].

Following the Brundtland Commission Report, it can be argued, that well-being means not just current well-being, but well-being across generations. “Sustainable development” is an economic program along which average well-being of present and future generations, taken together, does not decline over time.

In recent years sustainable development has been conceptually broken down into economic, environmental and social components. Thus, the achievement of sustainable development requires the integration of its economic, environmental and social components at all levels.

Human capital may be treated as a main part of social component of sustainable development. Initially the idea that investment in education has a long-term economic and social payoff for the individual and society at large goes back to Adam Smith. The formal concept of human capital was developed in the 1960s by a group of economists (G. Becker, J. Mincer etc.).

Human capital is defined as the aggregation of investments in such areas as education, health, on-the-job-training, and migration that enhance an individual’s productivity both in the labor market and in non-market activities.

Some definitions of human capital include the knowledge and skills that individuals acquire throughout their lifetimes. It is argued that since the number of skills individuals acquire through their lifetime depends partly on their initial abilities, this potential is an important aspect of the human capital concept.

Five aspects or characteristics of human capital that merit attention, were identified:

- human capital is a non-tradable good embodied in human beings, although the flow of services generated by human capital is marketed;
- individuals, particularly the young, do not always control the channel or pace by which they acquire human capital;
- human capital has a qualitative as well as a quantitative aspect reflecting the quality of the educational inputs;
- human capital can be either general in nature or specific to a firm or sector;
- human capital generates individual and social externalities [3].



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The indicators of human capital are divided into two basic types, outcome indicators and input indicators. Sustainability in terms of human capital can be defined in terms of the constancy or improvement in outcome indicators. Weak sustainability is defined as a lack of decline in summary human capital indicators (or a composite index of the summary indicators).

Strong sustainability is defined as a lack of decline in all summary and specific human capital outcome indicators.

In education input indicators capture the magnitude and quality of the investments while outcome indicators measure the actual outcome of investments in this type of human capital. Summary input indicators for education human capital can be defined as the total resources devoted by government and/or individuals to all forms of education and training. Information about investment in education (all levels) may be found in the annual OECD Reports Education At a Glance. From 2011 Russia was to double education expenditure and by 2012 this expenditure will double in comparison with 2006-2010.

The most relevant indicator of human capital is the general and specific knowledge and skill sets of the population, although quantification and aggregation in any absolute sense of heterogeneous knowledge bases and skills across the population is difficult. Standardized literacy and numeracy tests are useful for comparisons across countries and over time. Another summary outcome indicator of human capital is the educational attainment of the population, which can be measured by the number of years of formal schooling of the average person. A third outcome measure that would reflect the inadequacy of human capital formation in a country is the appearance of generalized skill shortages, which can lead to migration flows [4].

For many decades in the last century, a country's development was measured by Gross Domestic Product (GDP) per capita. Experience has proven that this indicator does not necessarily reflect the real well-being of a country's population because national wealth is not necessarily channeled to human development areas. It also does not reflect income distribution patterns. Development, however, is a very complex phenomenon which cannot be captured in a single composite index, especially if you agree with Amartya Sen (see epigraph). In other words, a country could have a high GDP per capita while a large segment of its population remained poor, uneducated and unhealthy because money was spent on arms purchases, prestige construction or luxury consumption by the privileged elite.

To obtain more precise human development profiles for countries, UNDP elaborated the Human Development Index (HDI).

The HDI is based in three indicators: longevity, as measured by life expectancy at birth (one-third weight); education attainment, as measured by the combination of adult literacy and combined primary, secondary and tertiary enrollment ratios (one-third weight); and standard of living, as measured by real GDP (Gross Domestic Product) per capita adjusted with Purchasing Power Parity (PPP\$; one-third weight).

Human development means an expanding the choices for all people in society. It also means “protection of the life opportunities of future generations and the natural systems on which all life depends” [6]. This makes the central purpose of development the creation of an enabling environment in which all can enjoy long, healthy and creative lives.



Table 1

Human Development Index (2011) and its components [5]

Country	Human Development Index (HDI) Value	Life expectancy at birth (years)	Mean years of schooling (years)	Expected years of schooling (years)	Gross national income (GNI) per capita (constant 2005 PPP \$)
VERY HIGH HUMAN DEVELOPMENT					
1. Norway	0.943	81.1	12.6	17.3	47,557
2. Australia	0.929	81.9	12.0	18.0	34,431
3. Netherlands	0.910	80.7	11.6	16.8	36,402
43. Latvia	0.805	73.3	11.5	15.0	14,293
HIGH HUMAN DEVELOPMENT					
48. Uruguay	0.783	77.0	8.5	15.5	13,242
65. Belarus	0.756	70.3	9.3	14.6	13,439
66. Russian Federation	0.755	68.8	9.8	14.1	14,561
84. Brazil	0.718	73.5	7.2	13.8	10,162
MEDIUM HUMAN DEVELOPMENT					
101. China	0.687	73.5	7.5	11.6	7,476
113. Egypt	0.644	73.2	6.4	11.0	5,269
123. South Africa	0.619	52.8	8.5	13.1	9,469
141. Bhutan	0.522	67.2	2.3	11.0	5,293
LOW HUMAN DEVELOPMENT					
143 Kenya	0.509	57.1	7.0	11.0	1,492
148. Angola	0.486	51.1	4.4	9.1	4,874
169 Sudan	0.408	61.5	3.1	4.4	1,894
187. Congo, Democratic Republic of the	0.286	48.4	3.5	8.2	280

Economic growth is a means to sustainable human development – not an end in itself. Human Development Report 1996 showed that economic growth does not automatically lead to sustainable human development and the elimination of poverty. For example, countries that do well when ranked by per capita income often slip down the ladder when ranked by the human development index. There are, moreover, marked disparities within countries – rich and poor alike – and these become striking when human development among indigenous peoples and ethnic minorities is evaluated separately.

There are five aspects to sustainable human development:

- *Empowerment* – The expansion people's capabilities and choices increases their ability to exercise those choices free of hunger, want and deprivation. It also increases their opportunity to participate in, or endorse, decision-making affecting their lives.



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- *Cooperation* – With a sense of belonging important for personal fulfillment, well-being and a sense of purpose and meaning, human development is concerned with the ways in which people work together and interact.
- *Equity* – The expansion of capabilities and opportunities means more than income - it also means equity, such as an educational system to which everybody should have access.
- *Sustainability* – The needs of this generation must be met without compromising the right of future generations to be free of poverty and deprivation and to exercise their basic capabilities.
- *Security* – Particularly the security of livelihood. People need to be freed from threats, such as disease or repression and from sudden harmful disruptions in their lives. [7]

Even though the HDI provides a more composite index, incorporating life expectancy, adult literacy and school enrolment, with GDP calculated applying purchasing power parity (PPP) rates, it still leaves out many other factors that have a bearing on human welfare. Thus the UNDP has been working on a Human Poverty Index and a Gender related development index (GDI). There are attempts by other organizations as well, to produce new composite indicators such as Gross National Happiness.

The HDI's simplicity has ensured its endurance. It sets straightforward targets for nations. Its influence should not be underestimated because it has forced nations to look beyond national income as a crude measure of success – a vital step as our global society attempts to live within planetary boundaries. Its effect has seen governments and international organizations set up projects and policies to attempt to increase their HDI rank. Indeed, the foreword of the 2010 report states, “The human development approach has profoundly affected an entire generation of policy-makers and development specialists around the world.”

But the HDI has one major failing: incredibly, it takes no account of the environment. This is a telling omission given that there is overwhelming evidence that human development is not sustainable. The founder of the Human Development Report, Mahbub ul Haq, says “the basic purpose of development is to enlarge people's choices. In principle, these choices can be infinite and can change over time” [8].

Now we see attempts to create a new index – Sustainable Human Development Index or SHDI, which takes into account “sustainability of development”. A fourth parameter has been added to HDI: per capita carbon emissions. If a country has a very high HDI but also high carbon emissions, we can say that the high quality of life enjoyed by this nation comes at a price to the quality of life in other countries, particularly developing nations, and to future generations.

The value of sustainable HDI is twofold. It demonstrates that with the correct policies in place, it is possible to have a remarkably high quality of life and lower emissions. Secondly, it is a step towards linking human development, climate change and sustainable development, at least within the UN [9].

The rapid development and global proliferation of new technologies, the pervasive spread of telecommunications systems, the growing importance of knowledge-based industries and skills – all these have created the foundation for a new age of sustainable human development.



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Table 2

HDI/HSDI ranks 2010 [9]

No.	HDI rank	No.	HSDI rank
1.	Norway	1.	Norway
2.	Australia	2.	New Zealand
3.	New Zealand	3.	Sweden
4.	United States	4.	Switzerland
5.	Ireland	5.	France
6.	Liechtenstein	6.	Ireland
7.	Netherland	7.	Netherland
8.	Canada	8.	Hong Kong, China (SAR)
9.	Sweden	9.	Germany
10.	Germany	10.	Australia
11.	Japan	11.	Japan
12.	Korea (Republic of)	12.	Iceland
13.	Switzerland	13.	Korea (Republic of)
14.	France	14.	Spain
15.	Israel	15.	Israel

Changes in the world's economic, political and social systems have indeed brought unprecedented improvements in human living conditions in both developed and developing countries. But these changes also bring new uncertainties and challenges in the 21st century. Signs of breakdown are everywhere: disintegration of families; destruction of indigenous societies; degradation and annihilation of plant and animal life; pollution of rivers and the atmosphere; higher unemployment; and a widening gap in incomes and capabilities.

During the last few years, sustainable development has represented one of the most important policy goals at global level and how to design specific policy actions, measuring performance and results continues to present a challenge. Scientific research has explored different analysis directions in order to identify a synthetic indicator to evaluate policy planning and achievements that goes beyond traditional income indicators. In consideration of the social dimension of sustainable development, including health, education and employment, the Human Development Index (HDI) of the United Nations Development Program represents a widely accepted methodology to be used as a starting point for building a more sustainable-oriented development index.

Conclusion

The aim of this paper was to identify a numerical measure of what Amartya Sen defined as “sustainable human development” using a human development framework and adapt it taking into account more specific environmental aspects. For this purpose, building a complex Human Sustainable Development Index (HSDI) may be a difficult task because of data availability and



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the European countries – especially the European Union – could be a useful pilot area for testing the methodology. The most recent efforts of the EU to standardize statistical information at country level enable us to build more complex indicators, including those with economic, social and environmental dimensions. Long-term sustainability requires the maintenance of capital stock to guarantee constant or growing welfare levels. In a human development perspective, the sustainability condition has been directly analyzed on the well-being side, assuming that a constant or growing HSDI could be the result of constant growing capital assets. An HSDI represents the core element of a comparative analysis to assess the effectiveness and the distributional effects of European policies, including environmental actions. Finally, a sensitivity analysis of the results will enable us to underline the key factors of effective sustainable human development and, at the same time test the real meaning of such a modified composite index compared with the existing GDP and HDI.

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THE ANALYSIS OF THEORETICAL APPROACHES FOR CALCULATING VARIOUS FINANCIAL RATIOS

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Abstract

Nowadays the methods of financial analysis are widely used to estimate a company's financial position and operating results. Studying scientific literature of the theoretical guidelines for the financial analysis we can find different approaches. The aim of the research is to study methods of various financial ratios calculations and basing on the empirical research findings to develop the recommendations for improvement the methods for it. The author of this paper is studying theoretically different scientist's findings for using book value or average value of balance sheet analyzing such important ratios as turnover of companies. For the empirical research the data from annual statements of Latvian companies of manufacturing and trade branches are used. In the research the author has applied quantitative and qualitative methods of economics such as the mathematical and the statistical methods, the ratio analysis, the graphical method, the logically – constructive methods. At the end of the research the author summarizes the general conclusions and findings.

Introduction

Nowadays we often can hear that accounting is the language of business. It is the vehicle for communicating financial information about company to many different groups of users of accounting data – creditors, investors, suppliers, managers, owners, government agencies and others analysts. Every user needs different financial information of a company, but they all use methods of financial analysis. Financial analysis means different things to practitioners across a wide range of industries, disciplines, regulatory authorities and standard setting bodies. [3]

To decide what ratios to analyze an analyst must the first decide what kind of financial information he needs to know about a company. The main question for assessing the performance of companies is to indicate the efficiency of usage of the assets in producing revenue and profits. Studying scientific literature of the theoretical guidelines for the financial analysis we can find different approaches. Calculating financial ratio of assets turnover, some scientists have recommended to use average value, others – book value of assets. Using the different approaches for calculation financial ratios it is important to know, if there are significant differences between the calculated results. The aim of the research is to study various



methods of assets turnover calculations and basing on the empirical research findings to develop the recommendations of the usage methods for it calculations. The methodological bases are scientific and training literature, statistical data and accessible Annual reports of manufacturing and trade branches of Latvian companies. The research period for data of annual statements is from 2007 till 2010, theoretical approaches have been investigated since 1997. In the research the quantitative and qualitative methods of economics such as the mathematical and the statistical methods, the ratio analysis, the graphical method, the logically – constructive methods have been applied.

1. Theoretical Approaches of Calculation Turnover Ratios

When examining a balance sheet, an analyst will draw company-specific conclusions about the size, nature, and value of the assets listed, looking at relative proportions, and judging whether the company has a viable asset base. In a more overall sense, a few ratios are used to judge broad trends in resource utilization. Such ratios essentially involve turnover relationships and express, in various forms, the relative amount of capital used to support the volume of business transacted. [6]

Asset turnover is the one of driver of a company's return on equity. Since firms invest considerable resources in their assets, using them productively is critical to overall profitability. In some industries, a key barrier to entry is the large amount of assets required to produce revenue. [2] A detailed analysis of asset turnover allows the analyst to evaluate the effectiveness of a firm's investment management Accounts receivable turnover, inventory turnover and accounts payable turnover allow the analyst to examine how productively the three principal components of assets are being used. Another area of investment management concerns the utilization of a firm's long-term assets. Property, plant and equipment (PP&E) is the most important long-term asset in a firm's balance sheet. The formulas of calculating assets turnover recommended by K.G. Palepy, P.M. Healy and V.L. Bernard are following [9]:

$$\text{Accounts receivable turnover} = \text{Sales} / \text{Accounts receivable} \quad (1)$$

$$\text{Inventory turnover} = \text{Costs of goods sold} / \text{Inventory} \quad (2)$$

$$\text{Accounts payable turnover} = \text{Costs of goods sold} / \text{Accounts payable} \quad (3)$$

$$\text{PP\&E turnover} = \text{Sales} / \text{Net property, plant, and equipment} \quad (4)$$

The same approaches we can find in R.C. Higgins work. [8]

However, G. White, A. Sondhi D. Fried and G. Friedlob have different approach for calculation asset turnover They notes, that the analyst's primary focus should be the relationships indicated by the ratios, not the details of their calculation and we can suggest many adjustments to and modifications of these basic ratios. When one of the components of the ratio comes from the balance sheet and the other from the income statement, the balance sheet component is an average of the beginning and ending balances. In practise, some analysts use beginning or ending balances for such mixed ratios. The formulas calculating assets turnover recommended by G. White A. Sondhi. D. Fried and G. Friedlob, are following [10:4]:

$$\text{Inventory turnover} = \text{Costs of goods sold} / \text{Average Inventory} \quad (5)$$

$$\text{Receivable turnover} = \text{Sales} / \text{Average trade Receivable} \quad (6)$$



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$$\text{Payable Turnover} = \frac{\text{Purchases (Costs of goods sold + the change in inventory)}}{\text{Average Accounts Payable}} \quad (7)$$

$$\text{Fixed Asset Turnover} = \frac{\text{Sales}}{\text{Average Fixed Asset}} \quad (8)$$

$$\text{Total Asset Turnover} = \frac{\text{Sales}}{\text{Average Total Asset}} \quad (9)$$

From Erich Helfert's point of view, the most commonly used ratio relate net sales to gross assets, or net sales to net assets. The measure indicates the size of the recorded asset commitment required to support a particular level of sales or, conversely, the sales dollars generated by each dollar of assets. The turnover ratios serves as one of several clues that, in combination, can indicate favourable or unfavourable performance. The assets turnover calculation is following [6]:

$$\text{Sales to assets} = \frac{\text{Net sales}}{\text{Gross assets}} \quad (10)$$

$$\text{Sales to net assets} = \frac{\text{Net sales}}{\text{Net assets}}^1 \quad (11)$$

The difference between the two sets of calculations lies in the choice of the assets total, that is whether to use gross assets or net assets. Using net assets eliminates current liabilities from ratio. Here the assumption is that current liabilities, which are mostly operational (accounts payable, current taxes due, current repayments of short-term debt, and accrued wages and other obligations) are available to the business as a matter of course. Therefore, the amount of assets employed in the business is effectively reduced by these ongoing operational credit relationships. This concept is especially important for trading firms, where the size of accounts payable owed suppliers is quite significant in the total balance sheet. [6]

Among the assets of a company the inventories and accounts receivable are usually given special attention. The ratios used to analyze them attempt to express the relative effectiveness with which inventories and receivables are managed. The amounts as stated on the balance sheet are generally related to the single best indicator of activity levels, such as sales or cost of sales (cost of goods sold), on the assumption that a reasonably close relationship exists between assets and the indicator. In assessing the effectiveness of a companies inventory management, it's more common to use the number of times inventory has turned over during the period of analysis using the following formulas [6]:

$$\text{Inventory turnover} = \frac{\text{Net sales}}{\text{Average inventory}} \quad (12)$$

$$\text{Inventory turnover} = \frac{\text{Costs of sales}}{\text{Average inventory}} \quad (13)$$

Normally average inventories are used to make this calculation. At times, it may be desirable to use only ending inventories, especially in the case of rapidly growing firms where inventories are being built up to support steeply rising sales. When dealing with any manufacturing company, we also must be particularly aware of the problem of accounting measurements – so often encountered when using other analytical methods – because the stated value of inventories can be seriously affected by the specific cost accounting system employed. [7]

The analysis of accounts receivable is based on net sales and calculation is following [6]:

$$\text{Receivable turnover} = \frac{\text{Net sales}}{\text{Accounts receivable}} \quad (14)$$

¹ Net assets = total assets less current liabilities, representing the capitalization of the business



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The relation of accounts receivable to sales is governed by credit policies and collection methods.

Comparing the above mentioned scientists' approaches for computing assets turnover ratios, the author of this paper concludes that there is some scientists who prefers assets book value at the end of the annual year, while the other recognizes average value of assets. Different terminology formulating types of assets, sales and costs for calculating ratios are used, too (Table 1).

Table 1

Summary of scientists' approaches for computing assets turnover ratios*

Types of assets, sales and costs	K.G. Palepy, P.M. Healy, V.L. Bernard, R.C. Higgins	G. White, A. Sondhi, D. Fried, G. Friedlob	E.A. Helfert
Accounts receivable	X		X
Average trade Receivable		X	
Accounts Payable	X		
Average Accounts Payable		X	
Average Inventory		X	X
Inventory	X		X
Costs of goods sold	X	X	
Costs of goods sold + the change in inventory		X	
Costs of sales			X
Net sales			X
Sales	X	X	
Net property, plant, and equipment	X		
Average Fixed Asset		X	
Average Total Asset		X	
Gross assets			X
Net assets			X

Source: Table made by the author of this paper

To get the answer to the question – if significant differences between the calculated results using different approaches exist, the author of this paper will study in the next chapter.

2. Data Collection for Empirical Research

For empirical study the financial statements of 10 Latvian companies, whose business orientation is manufacturing and trade, were used. Assets turnover ratios were calculated from Balance sheet and Income statement in the period of 2008 – 2010 of each company. The data



from 2007 of Balance sheet were used for average value calculations of assets too. Overall, were 30 ratios calculated using average value of assets and 30 ratios – using book value of assets. The same approaches for calculation receivables and inventory turnover were used. Taking into account, that any business, large or small, can be described as a system of financial relationships, in the study an accidental random set of companies was used. The assets book value of the analysed companies had from 94 to 0.7 million lats.

3. Analysis of Empirical Results

To achieve the aim of the current research, turnover ratios of assets, inventories and receivables were used. The formulas No. 9 and No. 10 for asset turnover were used, formulas No. 2 and No. 13 for the inventory turnover and formulas No. 6 and No. 14 for receivables turnover were used.

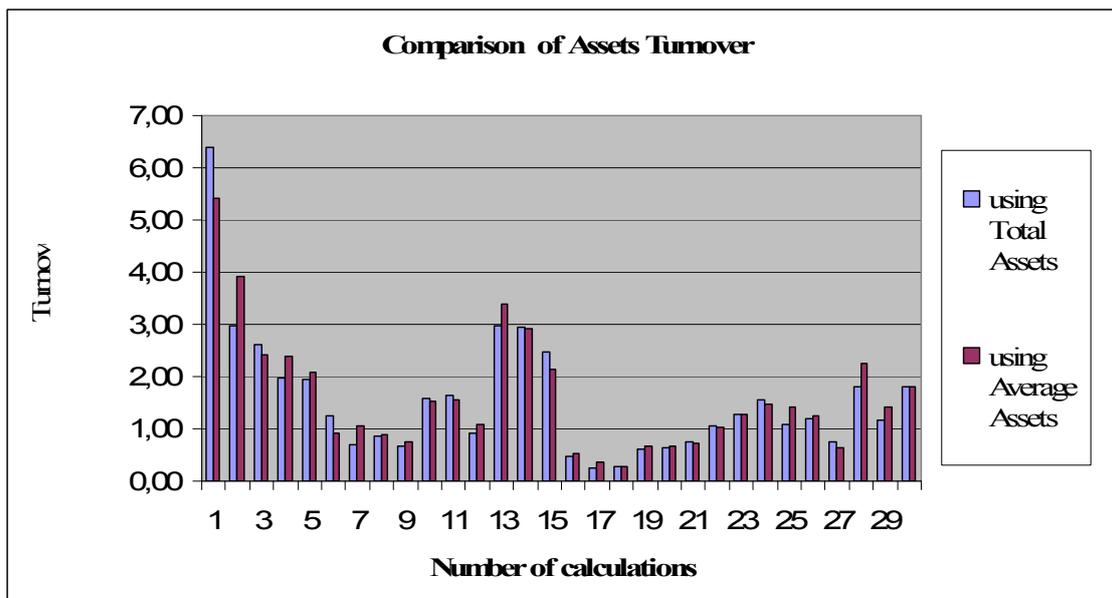


Figure 1. Comparisons of Assets Turnover Ratios

Source: Figure made by the author of this paper

The results of calculation of assets turnover (Figure 1) shows, the greatest differences between ratios using total assets and average assets are observed at calculation No. 1, where assets turnover ratio is 6.4 and average assets turnover – 5.4 and No. 2, where assets turnover ratio – 2.9 and average assets turnover – 3.9. Analysing the tendencies of those calculations of the last three years, the author concludes, that using both methods the changes of assets turnover ratio shows the same tendencies. Other numbers of calculations showed the same tendencies of changes of ratios and differences of their turnover ratios are unimportant for estimating financial



situation of a company, therefore the author came to the conclusion, that there are no significant differences between used approaches computing companies assets turnover ratios.

The next object of calculations was turnover of accounts receivable. For most companies selling on credit, accounts and notes receivable are an important part of working capital. [1]

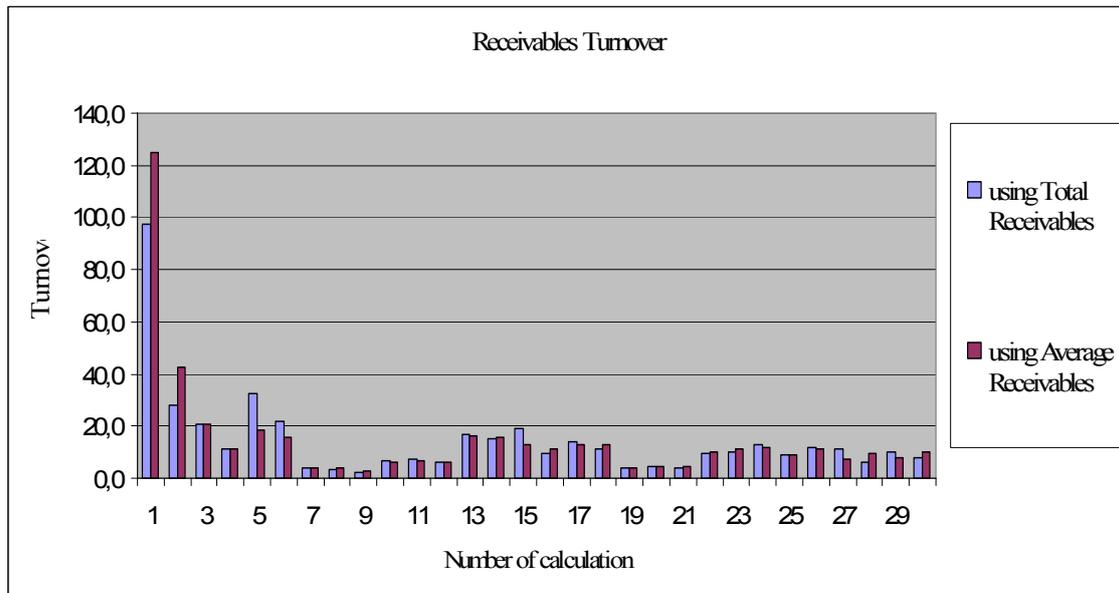


Figure 2. Comparisons of Receivables Turnover Ratios

Source: Figure made by the author of this paper

Results of calculation of receivables turnover (Figure 2) shows, the greatest differences between ratios using total receivables and average receivables is observed at calculation No. 1 and No. 5. At calculation Nr 1 total receivables turnover ratio are 97.8 and average receivables turnover – 124.9. Both calculated ratio are very high, transmitting ratio to receivables collection period – receivables collection days are 3.7 and 2.9, that means company does not practise selling on credit, so that receivables turnover ratio for assessing financial situation is not necessary. Estimating calculations No. 5, where total receivables turnover ratio is 32.6 and average receivables turnover – 18.7, the author concludes, that, the company has probably changed the policies of selling on credit, because the next calculations result of the following year of this company showed fewer differences between total and average receivables ratio – 21.9 and 15.5. To estimate a more objective result of calculation it is necessary to test annex of annual report of a company, where accounting policy of the company is described. That information for the author of this paper was not available. Analysing the tendencies of those calculations results of the last three years, the author conclude, that they are the same – turnover ratios shows the same tendencies of changes of ratios. Other numbers of calculations showed the same tendencies of changes of ratios and differences of their turnover ratios are unimportant for estimating financial situation of a company, therefore the author came to the conclusion, that



there are no significant differences between used approaches computing companies receivables turnover ratios.

Inventory turnover ratio is important for every company which sells his production. The inventory turnover ratio indicates the liquidity of inventories. The higher the ratio, the more quickly inventory is being sold. [2] Inventories are investments made for purpose of obtaining a return. This return is derived from the expected profits resulting from sales to customers. In most companies, a certain level of inventory must be kept. [1]

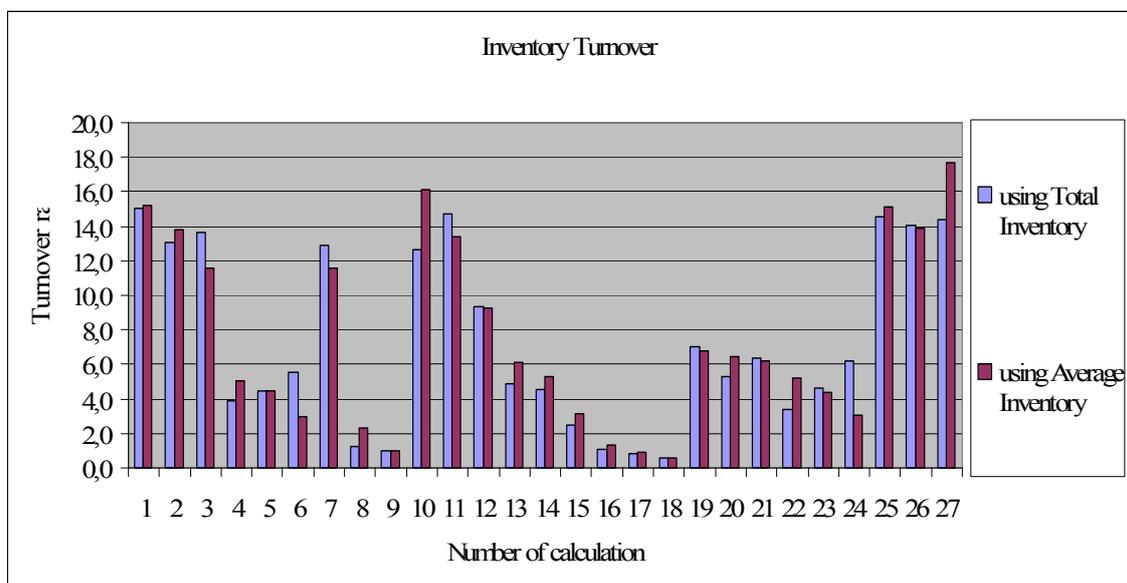


Figure 3. Comparisons of Inventory Turnover Ratios

Source: Figure made by the author of this paper

Analysing turnover ratios (Figure 3), the author cut out 3 calculations of the one company because its inventory turnover ratios were too high – more than 400 times. Testing the annex of the annual report, the author got information, that the company has a specific business features – manufacturing depends on customers orders and the production cycle is very short, so the company has no significant value of inventory at the end of the year. The results of the calculation of inventory turnover (Figure 3) shows, the greatest differences between ratios using total inventory and average inventory are observed at calculation No. 10 and No. 27. At calculation No. 10 total inventory turnover ratio is 12.7 and average inventory turnover – 16.1, calculations No. 27 – total inventory turnover ratio is 14.7 and average inventory turnover is 17.7. Analysing the tendencies of those calculations results the author concludes – inventory turnover ratios, using different approaches of calculations, shows the same tendencies of changes of ratios. Other numbers of calculations showed that there are no significant differences between results, therefore allows conclude, that there are no significant differences between used approaches computing inventory turnover ratios of companies.



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Conclusions

The turnover ratio serves as one of several clues, that in combination, can indicate favourable or unfavourable performance. Studying scientific literature of the theoretical guidelines for the turnover calculations the author of this paper found different approaches - some scientists prefer assets book value at the end of an annual year, while the others scientists recognize average value of assets. To achieve the aim of the current research, turnover ratios of assets, inventories and receivables were used. Analysing the tendencies of assets turnover ratio of the last three years which were calculated using different approaches, the author concludes, that all turnover ratio shows the same tendencies and there are no significant differences between the used approaches computing assets turnover ratios of companies. The same result of analysis showed that there are no significant differences between the used approaches computing receivables and inventory turnover ratios of companies. Basing on the empirical research findings the authors recommendations for analysts are that both approaches – assets book value or average assets value are useful for turnover calculations. The choice between the different approaches of calculations depends on the analyst. The analyst should make his choice before starting calculation for analysis and the chosen approach for calculating turnover ratios should be applied consistently year by year. Otherwise the calculated results will not comparable. At the end of current research the author wants to note, that the same study must continue with other important ratio – profitability of assets and equity.

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**ROLE AND EFFICIENCY OF PERSONAL INCOME TAX
RELIEFS IN PROMOTING EMPLOYMENT
AND SOCIAL GOALS IN LATVIA**

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Abstract

Economic crisis that started in 2008 substantially influenced employment and social indicators in Latvia. Flexibility of labour market helped to reverse negative trends and already in 2010 overall situation started to improve, but many problems remain. Unemployment level is high, economic activity is decreased; a lot of workers emigrate because of weak labour demand and low wages. Declining labour income increases poverty risks especially for households with children. There are risks of high structural unemployment and inactivity trap of less skilled worker, as well as of further emigration and persistent employment in informal economy.

Labour income taxation could influence employment and social issues substantially. During the budget consolidation process in Latvia tax wedge on labour income increased, and for low wage earners it is now by about 4 pp higher than EU average. Theoretical and empirical evidence confirms that taxation has strong impact especially on working decisions of low-income earners. This is one of risks to further improvement of employment.

Tax wedge on labour income consists of social security contributions and personal income tax. PIT is seen generally as better candidate for change because SSC are linked to tax payer's future benefits. Taking into account Latvian flat income tax, main instrument to influence low-wage workers are tax reliefs – non-taxable minimum and allowance for dependants. Tax rate change would be more beneficial to better paid workers.

Author proposes to increase PIT non-taxable minimum to the level that allows reaching EU average tax wedge. This would help to increase employment in low-skill segment, decrease inactivity and unemployment traps and improve social situation of affected households. However if target is to decrease attractiveness of emigration and informal employment, increase of non-taxable minimum up to the level of minimum wage should be considered. Both proposals are very costly to the budget, and need to be coordinated with other labour market institutions.



Introduction

In Latvia debate about labour taxation linkage to employment issues is elevated recently since many labour market characteristics show weaknesses – during the economic crisis of 2008-2010 unemployment levels increased and employment and activity rates decreased considerable, there are comparatively high outward migration due to lack of domestic employment opportunities and high wage differences with EU15, persist informal employment and labour tax evasion, shady tax moral. Existing labour market problems are challenging also due to ageing and accordingly growing risks to sustainability of social security system by increasing dependency ratios. Additionally there are related issues of equity and poverty, where income taxation plays also prominent role.

There are budget constraints to any fiscally negative measures as consolidation process continues.

Labour costs are influenced directly through social security contributions and personal income tax. This article is focused on PIT as better candidate for change. In its current flat design most of labour market incentives could be constructed only through tax reliefs, which will be main focus of this article. Employment and related social policy depend also from the other labour market institutions (minimum wage, regulations) and also budget expenditures.

The aim of the paper is to analyse existing tax wedge on labour income, and its relation to the employment, with special focus on the role of existing tax reliefs in the law on personal income tax in Latvia. The research methodology is based on analysis of statistical data, studies of economic and scientific literature, and national legislation.

The main emphasis in article will be on low-income workers as this employment segment has higher risks and could gain most from possible changes in PIT reliefs. Author proposes reform options to improve labour market and social conditions, evaluating also their costs.

1. Theoretical Framework of Labour Tax Impact on Employment

The taxation of labour income can influence the level of employment in an economy through its effect on both the level of unemployment and the size of the labour force. Labour taxation drives a wedge¹ between the total labour costs faced by employers and the real consumption wage received by employees. This will generally affect both labour demand and labour supply decisions. [3, 14]

In perfectly competitive labour market, taxation would have no effect on unemployment as the real wage would adjust so that market would clear. [3, 24] Higher taxation would reduce voluntary supply of labour if net wages would be below the level acceptable to some individuals (so increasing inactive population, but not affecting unemployment). In practice however taxation affect unemployment levels, but indirectly through alleviating or exacerbating non-tax distortions created by the other labour market institutions – specifically out-of-work benefits and wage setting institutions. [3, 25]

The effect of taxation on labour supply will vary in different population groups. Individuals will respond differently to a change in the real consumption wage depending on

¹ The tax wedge is ratio of total labour taxes to total labour costs.



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their individual preferences and family characteristics. Tax will affect decisions of participation, numbers of hours worked, but also amount of effort an individual is willing to put into his or her work, including long-term decisions on occupation and education. Tax will also influence decision to engage in tax avoidance or evasion (including working in the informal sector). Tax could bias forms of compensation. [3, 10]

The demand for labour is affected by the ratio of tax wedge that is passed over to employer.

The more elastic is the labour supply (and/or demand) curve the more harmful is the tax wedge for employment. In case of standard convex aggregate labour supply (and demand) curves, a high tax wedge affects especially for relatively low wage earners. Since one of the main factors explaining real wage differential is the skill level, one can argue that the negative employment effect of the tax wedge would be most severe for low-skilled workers. [5, 5-6] The situation in low-wage segment of employment is made even more complex by other labour market institutions – such as minimum wage and social benefits creating e.g. unemployment, inactivity and low-wage traps.

Empirical evidence suggests that low-income workers, single parents, second earners and older workers are relatively responsive to changes in labour income taxation, particularly at participation margin. In addition, taxable income elasticities suggest that higher-income individuals are more responsive to taxes than middle-income and lower-income workers. [3, 10]

Consequently there is need to design tax policy targeting individual employment groups at different income levels and family characteristics to address most pressing issues effectively with minimal fiscal costs.

Tax wedge consists of personal income tax and social security contributions. Both are good candidates for change as if labour market is enough competitive it doesn't matter who will formally benefit from them initially employer (SSC) or employee (PIT, SSC). But it is important how potential tax cuts effects the average and the marginal labour costs (progressivity).

However if there are relationship between amount of SSC paid and benefits received (as it is case in Latvia), the negative impact from SSC on labour supply could be smaller. [4, 23]

This makes personal income tax first candidate to explore for possible reforms to improve labour market conditions.

2. Employment and Income Development²

Labour market in Latvia showed continuous improvement over the last decade, and most indicators maximum positive values reached at the end of 2007 with unemployment level close to 5% of economically active population.

Economic crisis substantially influenced labour market with unemployment level exceeded 20% of economically active population at the beginning of 2010. Situation improved markedly afterwards, but unemployment level is still high – 14.4% in III quarter of 2011. Mostly this improvement comes from the better employment opportunities, but partly it is explained also by declining economically active population. This development is influenced by demographic change with less young people entering labour force and increase in discouraged

² Data cut-off date 10 January 2012.



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jobseekers. The latter stimulate also outward migration that according to estimates during the 2009-2010 reached 70 thousand people. [11, 76]

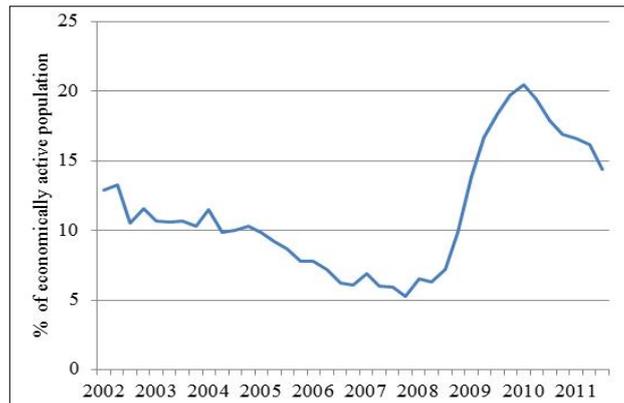


Figure 1. Unemployment

Source: Central Statistical Bureau of Latvia

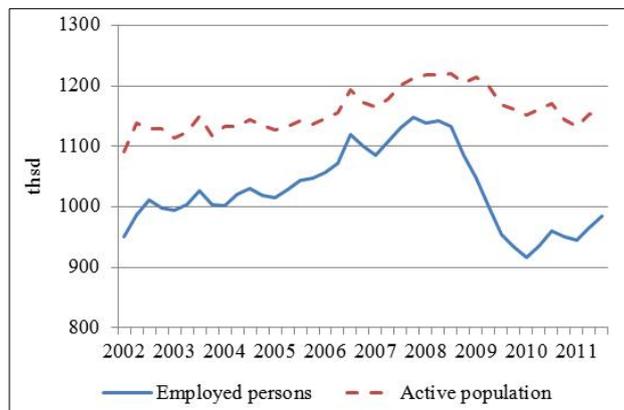


Figure 2. Activity and employment

Source: Central Statistical Bureau of Latvia

One of the reasons of high unemployment is changing structure of industries of economy. In the first phase of recovery job match (Beverage curve) suggested about flexible and effective labour market [6, 11]. But taking into account extent of the problem, there is substantial risk of increase of structural unemployment because of possible 'mismatch' between skills and the requirements of the new job opportunities. Long-term unemployment creates economic costs because of the damage to the skills and employability of those people out of work. High labour costs because of the existing labour market institutions for low-skill employment could deepen the problem.



Table 1

Employment by kind of economic activity

	Structure (%)	Change (%)
	2010	2010/2008
Primary industries	9.8	0.0
Manufacturing	14.3	-21.6
Electricity, gas and water supply	1.9	-16.1
Construction	7.0	-47.6
Wholesale, retail trade, hotels and restaurants	19.3	-16.1
Transport and communication	9.9	-12.2
Other private services	16.1	-5.3
Public services	21.8	-11.5

Source: Ministry of Economy of Latvia [9, 11]

Employment turbulences caused substantial changes to the wages in economy. Average wage declined, and share of minimum wage receivers increased substantially. The latter could be one of the indicators of increased tax evasion (underreporting), but also undeniable shows the real increase of share of low-wage workers in total employment. This is indirectly confirmed also by the popularity of 100 lats (approx. 142 euro) work-benefit programme³ for unemployed, showing considerable amount of workers who agree to work for very low level of compensation.

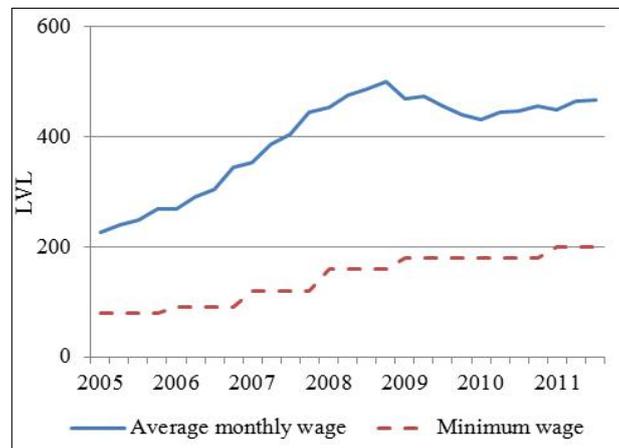


Figure 3. Average and minimum wage

Source: Central Statistical Bureau of Latvia

³ Programme of public works 2009-2011 in Latvia to provide a safety net to the long term unemployed not covered by the unemployment insurance and other social programs, where participants received benefit 100 lats per month.



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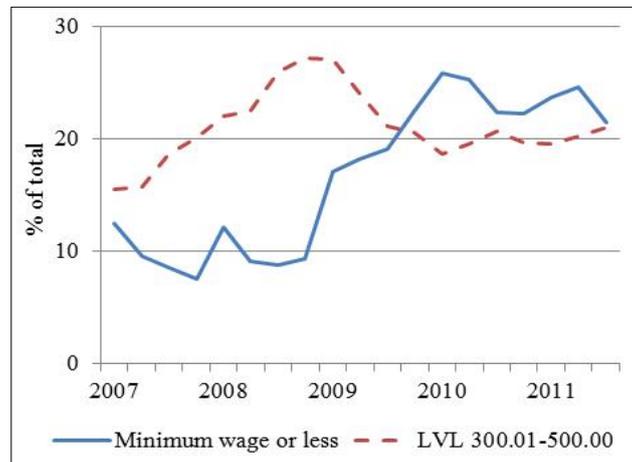


Figure 4. Share of workers at minimum wage and average wage intervals

Source: Central Statistical Bureau of Latvia

Equity and poverty issues are closely linked to the existing labour market conditions and labour taxation as important redistribution mechanism. Role of benefits is of course also very important.

In 2007 wages and salaries were main source of subsistence for 68.3% of households, this share decreased to 58.6% in 2009. As amount of social transfers increased, full or partial loss of wage income was behind substantial decrease of disposable income during the crisis. In 2010 55.4% of households answered that they with difficulty pay for usual necessary expenses, up from 44.4% in 2007. At risk of poverty rate before all transfers increased from 37.1% in 2007 to 43.7 in 2009. Transfers improved overall situation considerable, and this rate after all transfers even improved – 21.3% in 2009 comparing with 25.5% in 2007. This could be also one of the main drivers behind decrease of Gini coefficient to 36.1 in 2009. [1] Gradual phasing out of additional crisis related social safety net however without sufficient improvement in employment could deteriorate poverty risks in the medium term.

Most vulnerable types of households are households with children, especially those with 2, 3 and more children or households with one adult and children. Average consumption expenditure per capita in households with 3 or more children in 2010 was below average of 1st quintile, but those with two children below average of 2nd quintile. For comparison average consumption expenditure of one person households belongs to 4th quintile. [7] This clearly shows the impact of dependants to the household wealth.

Summarising, labour market after immense worsening showed good flexibility, declining wages improved competitiveness of economy allowing to reverse negative trends of employment. Unemployment level however remains high and employment at minimum wage increased considerable. Rapidly changing structure of industries risks increasing structural unemployment and inactivity in the medium term. Weak employment opportunities and relatively low wages increases also emigration creating long-term sustainability risks. Households with two and more children have low relative consumption expenditure and



increased poverty risk. These groups could be positively affected by decreasing tax wedge on low income.

3. Personal Income Tax on Wage Income

Personal income tax rate on wage income in Latvia is 25%⁴. The flat income tax system was introduced in Latvia in 1994 and proved to be as one of cornerstones of tax policy. Flat tax system is favoured by its simplicity and helps to avoid penalising for being productive and earning more money.

PIT contain one universal tax relief applicable to the all employees – non-taxable minimum (basic allowance), which ensure 0 tax rate for part of income and tax progressivity in general. In 2012 non-taxable minimum is set LVL 45 (approx. EUR 64) per month or LVL 540 (approx. EUR 768) per year.

Another widely used tax relief is tax allowance for dependants, which in 2012 is set LVL 70 (approx. EUR 100) per month or LVL 840 (approx. EUR 1195) per year for each dependant.

There are several other tax reliefs which could affect labour income – additional tax allowances for people with disabilities, pensioners' non-taxable minimum.

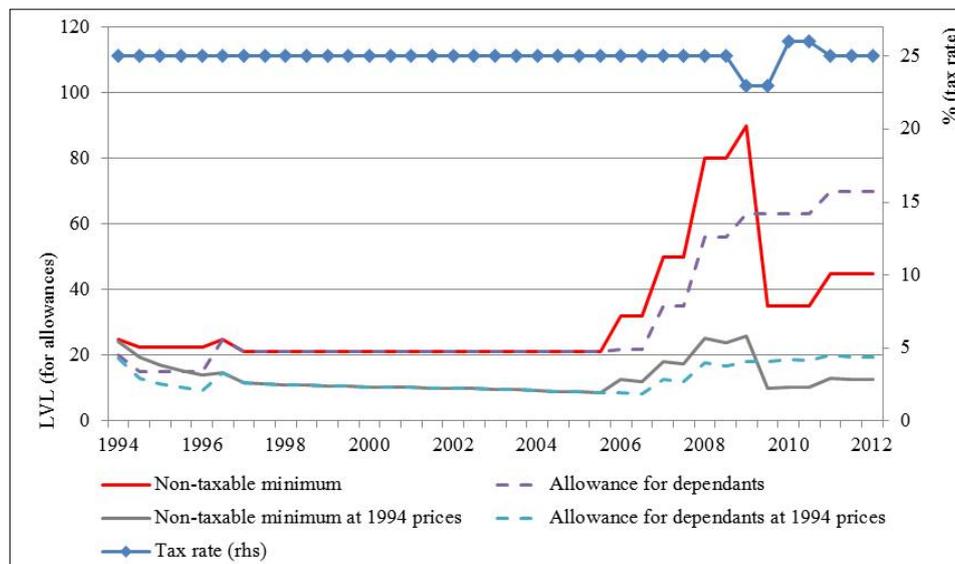


Figure 5. PIT rate (rhs) and non-taxable minimum (lhs) 1994-2012

Source: Ministry of Finance of Latvia, author's calculations

Based on yearly PIT declaration tax payers could deduct following expenses which could be attributable to the social goals of society – expenses for medical treatment, vocational

⁴ Here and further PIT is analysed as tax on wage, excluding other tax bases, for full coverage see Law on Personal Income Tax.



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training and obtaining education, health insurance premium contributions to insurance companies, long-term life insurance contributions, and contributions to private pension funds. There are set maximum limits for these deductions.

Before 2006 there were few substantial changes to the main elements of PIT, but from 2006 tax policy activities were directed at lowering of the labour tax burden especially for low-wage workers by gradually increasing non-taxable minimum up to LVL 90 per month (approx. EUR 128) in first half of 2009. Also amounts of many other allowances were increased. To a great extent however these activities could be interpreted as indexing inflation (that accelerated especially after accessions to EU in 2004) which decreased real values of allowances.

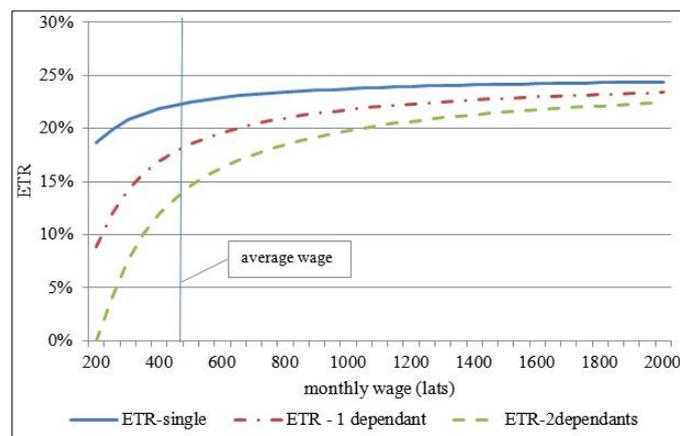


Figure 6. Effective PIT rates

Source: Ministry of Finance of Latvia, author's calculation

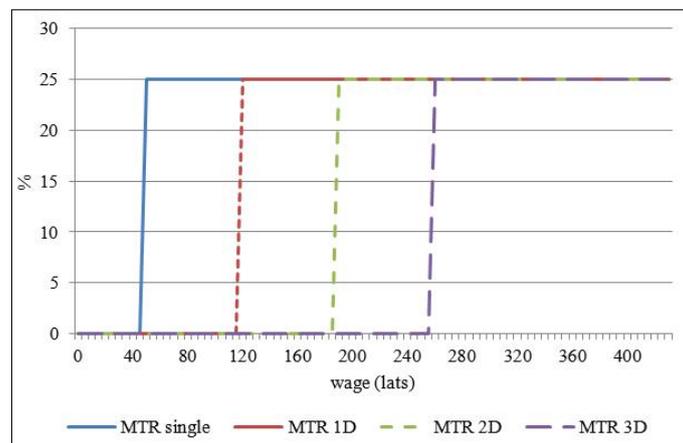


Figure 7. Marginal PIT rates

Source: Ministry of Finance of Latvia, author's calculation



During budget consolidation process that started in 2009 tax burden on wages increased⁵, which partly reversed previous policy measures in this field.

Effective PIT rate taking into account relatively low level of non-taxable minimum starts from 18.7% for minimum wage than grows to 22% for average wage and 24% for double average wage receivers. If tax payer has registered dependants effective tax rate decreases e.g. with two dependants effective PIT rate at minimum wage level is 0%, at average wage 14%, but at double average wage 19%.

Marginal PIT rate taking into account flat nature of income taxation in Latvia switches between 0% and 25% in the points where ends application of tax allowances.

4. Tax Burden on Labour

The statutory rates of labour taxes don't tell the entire story, as tax reliefs and compliance issues could change actual tax burden considerable.

In Latvia PIT statutory flat rate is 25%, SSC – 35.09%. However actual tax revenues from labour income divided by the labour earnings show implicit tax rate on labour only about 30%. This indicator suggests that overall labour tax burden in Latvia is lower than EU average – 36%.

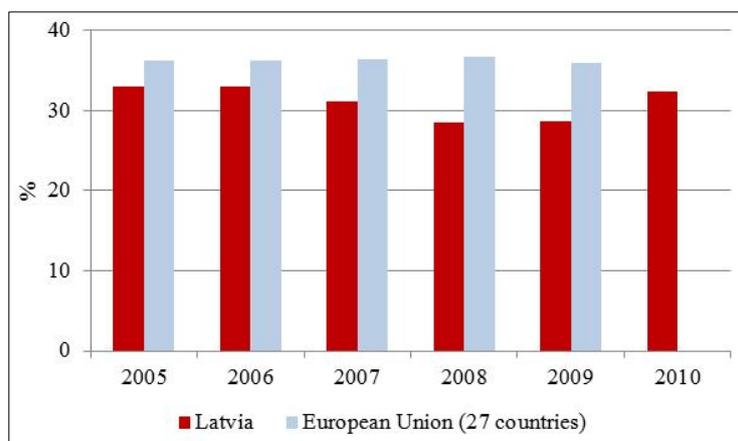


Figure 8. Implicit tax rate on labour

Source: European Commission [2], author's calculation

Development of tax wedge shows that during the crisis tax burden increased on all categories of workers and progressivity of labour taxes decreased. Main cause behind this is lower non-taxable minimum of PIT.

Looking at tax indicators together with the benefit systems allows better to understand existing and potential labour market problems in the segment of low-wage workers. One such indicator is unemployment trap, who measures the proportion of gross earning taxed away (by

⁵ However increase of labour taxes was much smaller than that of taxes on consumption and property.



higher taxes and withdrawal of benefits) when moving from unemployment to employment. Other is low wage trap that measures the proportion of gross earnings taxed away (by higher taxes and withdrawal of benefits) when gross earnings increase.⁶

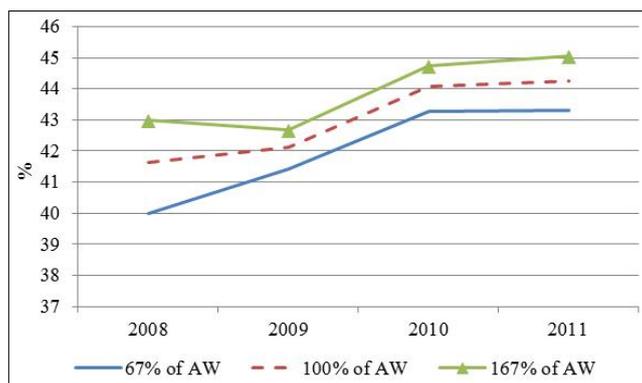


Figure 9. Tax wedge

Source: European Commission [2], author's calculation

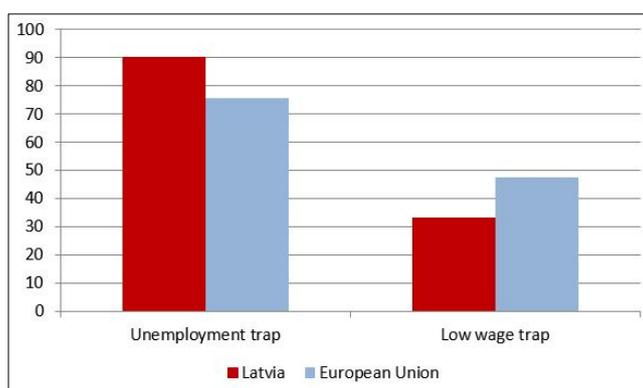


Figure 10. Unemployment and low wage traps in 2010

Source: European Commission

5. Fiscal Importance of PIT and Costs of Tax Reliefs

It should be emphasized obvious budget constraint to any fiscally negative tax change. The last adopted 2012 budget contains consolidation measures in the amount of about 1% of GDP, targeting general government budget deficit to 2.5% of GDP. Further deficit reduction is

⁶ Eurostat for unemployment trap uses earnings at 67% of average wage, for low wage trap wage increase from 33% to 67% of average wage.



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still planned with the aim to achieve balanced or even surplus budget in the medium term to ensure stability of macroeconomic environment.

Revenues from personal income tax plays important role in the general government budget. In 2012 they are planned 812 million lats or 5.6% of GDP and constitute 19.7% of total revenues⁷. 80% of PIT revenues are going to local governments, but 20% to central government. PIT provides 84% of local government total tax revenues making them especially vulnerable to any changes in personal income taxation.

Tax reliefs are costly especially for universal allowances as non-taxable minimum.

Provisions of PIT allowances and deductible expenditures (with employment (making work pay) or social character) costs in revenues forgone amounted 453 million lats or 3.3% of GDP in 2011, int.al. non-taxable minimum 101 million, pensioners non-taxable minimum 261 million, allowance for dependants 71 million. [10, 22]

6. Options for Reform

The previous analysis shows that existing tax wedge on low income could be characterized as high creating a numerous risks for low-wage (low-skill) employment, including inactivity and unemployment traps, but also poverty problems. The latter is especially important for households with dependants. Tax wedge on low earnings in Latvia is above EU average and neighbouring countries, creating also cost competition problems for industries relying on more simple jobs. High tax wedge stimulates also tax evasion by working in informal economy or underreporting the incomes.

The results of World Bank study suggested that, for a given GDP growth rate, each percentage point difference in the tax wedge is associated with a decrease in employment growth by 0.5-0.8 percentage points. [5, 10]

Existing PIT system in Latvia allows dealing with this issue through tax allowances – non-taxable minimum and allowance for dependants. Changes in basic tax allowances influence primarily workers with wage below average and have only marginal impact on high-wage workers.

In case of Latvia amounts of these allowances are approved by the government regulation and are not linked to the changes in the law or direct parliamentary approval.

In this paper are discussed following options for reform:

- 1) decreasing tax wedge for low-wage workers to the level comparable with EU average and other Baltic states;
- 2) decreasing tax wedge for low-wage workers by 10 percentage points.

Decreasing tax wedge for low-wage workers to the level comparable with EU average and other Baltic states

According to the authors estimation tax wedge for low wage earners (67% of average wage) in 2012 in Latvia is 43½% that is about 4-5 pp higher than in other Baltic states and EU average. Estonia and Lithuania have similar flat rate income tax system with higher SSC but

⁷ PIT base includes also from capital income and earnings of self-employed and some other minor categories.



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lower PIT rates and higher basic allowances. To reach mentioned decrease of tax wedge PIT non-taxable minimum should be increased up to 100 lats per month. This would ensure tax wedge below 40% for low wage earners.

This measure in revenues forgone would cost to the budget about 110 millions lats. In case of positive outcome however one could expect higher employment through increase in participation rates, lower unemployment and increased labour demand. Government expenditure for social benefits should decrease as well. One could expect also decrease of informal economy. All these developments could compensate initially lost revenues. However as the precise benefits and their timing is very uncertain government initially should count on lower PIT revenues to avoid negative fiscal consequences. [5, 12]

Tax wedge is only one of the instruments that determines labour market situation, therefore premature and overly optimistic expectation should be avoided as this possible change needs to be coordinated with other labour market institutions.

Other justification for decrease of labour tax burden is tax competition between Baltic states.

Decreasing tax wedge for low-wage workers by 10 percentage points

First option foresees returning Latvian tax wedge to the level of other Baltic states, but at current juncture this probably will be not enough for tangible results especially if additionally to classical labour market problems we should add also emigration and informal economy issues.

Latvian labour market is integrated into common EU labour market. Latvian worker have opportunities to emigrate to the countries where tax burden for low wage jobs is lower and net wage and state benefits are higher. One of solution would be to increase PIT non-taxable minimum to the level of minimum wage [12].

Other justification for more sizeable decrease of tax-wedge is informal economy int.al. underreporting of actual wages. As suggested by recent opinion poll 20% of employees do not pay labour taxes at all or only partially, and 23% hold a view that paying taxes is not important. [8, 15]. If tax moral is not high, elasticities to tax changes could be smaller.

To ensure decrease of tax wedge by 10 pp non-taxable minimum should be increased up to 200 lats. It would cost to the budget about 315 millions lats. This solution needs significant compensatory revenue or expenditure measures.

Alternative solutions

Alternative solutions for decreasing tax wedge could be

- decrease of overall PIT rate – this would decrease tax wedge in all wage categories, but would decline also existing progressivity;
- introduction of lower PIT rate for low-wages – this would mean introduction of simple progressive taxation system with two tax brackets. It could have more pronounced impact on wage group in first bracket, but PIT would lose its simplicity, increase administrative burden and probably lower tax moral for those in higher tax bracket.

These alternative solutions are also costly. Decrease of PIT rate by 1 percentage points in revenues forgone would cost to the budget about 30 millions lats. If this decrease concerns only low-income workers impact of course would be smaller, but anyway substantial as majority of workers are receiving less than average wage.



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Options for social objectives of PIT reform

Poverty risk for low-wage earners especially with two or more children could be decreased by lower tax burden. This is done through allowance for dependants. So, increase of this allowance could improve incomes of families with children. However there is problem in the low wage segment that already now minimum wage receivers with two dependants use this allowance in full (and have 0% tax) and third dependant do not increase net wage. With further increase of allowance, this problem will intensify in wage levels more close to the average.

Regarding additional tax allowances for people with disabilities, pensioners' non-taxable minimum – these seems to be in line with their objectives and positive impact from their change would be limited.

Other mentioned PIT reliefs with social character were deductible expenses for medical treatment, vocational training and obtaining education, health insurance premium contributions to insurance companies, long-term life insurance contributions, and contributions to private pension funds. These could have limited impact on behaviour of low-wage earners, as they use less of these services than wealthier fellow citizens. Other constraint for low-wage earners could be the low amount of paid PIT, which would not allow them using reliefs in full. So these tax reliefs have important social merit and objectives, but have more impact on average-income and wealthier tax payers than on low-wage workers.

Conclusions and Recommendations

1. Labour taxation will generally affect both labour demand and labour supply decisions. The effect of taxation on labour supply will vary in different population groups. Individuals will respond differently to a change in the real consumption wage depending on their individual preferences and family characteristics. Tax will affect decisions of participation, numbers of hours worked, but also amount of effort an individual is willing to put into his or her work, including long-term decisions on occupation and education. Tax will also influence decision to engage in tax avoidance or evasion (including working in the informal sector). The demand for labour is affected by the ratio of tax wedge that is passed over to employer. The more elastic is the labour supply (and/or demand) curve the more harmful is the tax wedge for employment. In case of standard convex aggregate labour supply (and demand) curves, a high tax wedge affects especially for relatively low wage earners.
2. Tax wedge consists of personal income tax and social security contributions. Both are good candidates for change, however if there are relationship between amount of SSC paid and benefits received (as it is case in Latvia), the negative impact from SSC on labour supply could be smaller. This makes personal income tax first candidate to explore for possible reforms to improve labour market conditions.
3. Labour market after immense worsening showed good flexibility, declining wages improved competitiveness of economy allowing to reverse negative trends of employment. Unemployment level however remains high and employment at minimum wage increased considerable. Rapidly changing structure of industries risks increasing structural unemployment and inactivity in the medium term. Weak employment opportunities and relatively low wages increases also emigration creating long-term sustainability risks. Households with two and more children have low relative consumption expenditure and



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- increased poverty risk. These groups could be positively affected by decreasing tax wedge on low income.
4. According to the authors estimation tax wedge for low wage earners (67% of average wage) in 2012 in Latvia is 43½% that is about 4-5 pp higher than in other Baltic states and EU average.
 5. The results of World Bank study suggested that, for a given GDP growth rate, each percentage point difference in the tax wedge is associated with a decrease in employment growth by 0.5-0.8 percentage points.
 6. Existing PIT system in Latvia allows dealing with this issue through tax allowances – non-taxable minimum and allowance for dependants. Changes in basic tax allowances influence primarily workers with wage below average and have only marginal impact on high-wage workers.
 7. Author recommends following options for reform:
 - decreasing tax wedge for low-wage workers to the level comparable with EU average and other Baltic states;
 - decreasing tax wedge for low-wage workers by 10 percentage points in long-term.
 8. First option foresees to increase PIT non-taxable minimum up to 100 lats, second up to 200 lats per month. First option returns Latvia back in parity with other Baltic states, second option could be much more influential with expected positive effects also to emigration and informal economy.
 9. Fiscal costs of proposed reforms options are high, and it is important question how to finance it – as expected magnitude of benefits from reform and especially their timing are uncertain.

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THE DEVELOPMENT AND FORMATION OF FINANCIAL SCIENCE IN A WORLD CONTEXT

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Abstract

The worldwide famous financier V. Khodsky observed that ignorance of history will always work against future. Ignorance of history and sciences, will inhibit ones ability to move forward and improve.

The aim of the paper is to discuss the origin and development of financial schools, to study the establishment and development of them, to point main achievements, to draw parallels between their theories, to find similarities and differences among theses.

The main result of the paper is a short research about main world schools of finances and main achievements, as well as detailed view on similarities and differences among those schools.

The scientific novelty of the paper is in the review of the main world schools of finances, as a significant world science.

Aside from the in depth literature review employed in this paper, the author uses theological and conventional methods of economic analysis.

Introduction

Ignorance of history and sciences will inhibit ones ability to move forward and improve. In light of this, the author of this paper will to examine the history of financial science, starting from the Middle Ages and from the founders of the financial science, thus highlighting two main theories, *neoclassical and classical* theory of finance.

The aim of the paper is to discuss the origin and development of financial science and to contribute to existing literature on this subject by providing a review schools of thought



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regarding financial science since the Middle Ages. The author develops a concise review of classical and neoclassical theories of financial analysis, as well as detailed review on the Italian school, as a founder of systematization of finance knowledge.

The scientific novelty of the paper is in the review of the finances as a science of global significance and as an emerging science in Latvia.

Aside from the in depth literature review employed in this paper, the author uses theological and conventional methods of economic analysis.

Information content of the economic category “finances” was changing with a flow of years. According to one of the founders and one of the most influenced systematiser of the classical theory of finance, the professor of the University of Heidelberg Kari Rau (1792-1870), the word “finance” was used in the Latin language in the Middle Ages. During 13th-14th century the expressions such as *finatio*, *financia*, as well *financia pecuniaria* were well known and were used to describe the payment with money [4].

Since the 17th century in France and in some other countries under expression “finances” was meant all state economy, its material resources – incomes, expenses, loans. It could be stated that finances are considered in connection with the development of the state and its resource needs.

By researching finances it is possible to find a key towards understanding many historic phenomena. By studying and analyzing them, you can understand why some of the nations were rapidly developing, why the whole empires were ruined, why under some governments and parliaments of the state you can observe economic development, but under others – stagnation in economic and socio-economic instability in the society [8].

Financial practice is for thousand of years older than financial science. There existed a lot of financial holdings that were developing, growing, becoming weaker, died, because of not knowing about the existence of financial science. Financial science appeared later than socio-political sciences and the year of the foundation of the financial science is considered 15th-16th century.

The History of Finances in the Middle Ages

The history of the formation of finances can be described in two stages:

- 1) The first stage, which began in the time of Roman Empire and ended in the middle of the 20th century, found its theoretical formation in the so-called *classical theory of finance*.
- 2) The second stage, in which the logic of the *neoclassical theory of finance* was developed.

The essence of the first theory is in the dominance of the state in the finance. The essence of the second theory is in the dominance of the private sector finance. The development of the ideas, that later became the basis for the respectively classical and neoclassical theories of the finance, as well as the improvement of the finance management practices in the context of the function of the government and private sector, occurred at the same time.

As a separate branch of a science, financial science is not one of the oldest, however it already has quite a rich history. The first generalizations of the financial science were made in



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the middle of the 18th century by the German Cameralists. This unit of knowledge became known as the classical finance theory' in the history of economic thought.

In accordance of the development of the economy in the 20th century, theories and practices were strongly developed, they were developed primarily by the Anglo-American school of finance, that later named it neo-classical theory of finance'.

Italy should be considered a founder finances. In the XV century Italy was home to the emergence of financial science. Financial science appears at the same time as political economy in 15th century in the cities of northern Italy, which were in the period of economical and cultural growth. In the twilight of the Middle Ages merchant capitalism created not only material conditions for the emergence of a new branch of public knowledge, but also the urgent need for a reasonable relation towards financial economy.

Issues of the systematization knowledge in the field of finance were researched by dominant scholars such as Diomede Carafa (1406 – 1487), Niccolò Machiavelli (1469 – 1527), Giovanni Botero (1540 – 1617) and other scientists of the Middle Ages [3].

The scientific work of Italian scholars worked as a powerful impetus for the scholars of other countries. A French scholar Jean Bodin (1530 – 1596) identified seven major sources of revenue:

- 1) public domain;
- 2) profits of conquests;
- 3) gifts from friends;
- 4) tribute from allies;
- 5) profits of trading ventures;
- 6) customs on exports and imports;
- 7) taxes on the subject [4].

French scholar Jacques Savary (1622 – 1690), was the first one to systemize the economic analysis. Savary introduced the concept of analytical accounting and is the author of management accounting and of the science of enterprise management [5]. Italian accountant Giuseppe Cerboni (1827-1917) deepened the ideas of Jacques Savary and created a doctrine on analytical expansion of accounting records. Moreover, at that time were formed a precondition for the promotion of the knowledge between users about economical and legal analysis of balance [5].

According to historical standards, financial science is a relatively young science in comparison to the historical development of other sciences, the development of financial science was considerably slow. It was developed by the development of science as such and by different disciplines, which were directly related to business management. In the following section of this paper will discuss the historical development of financial analysis and is divided into the dichotomy of classical *theory of finance* and *neo-classical theory of finance*.

Classical Theory of Finance

The concept of the *classical theory of finance* is assigned to a set of theoretical concepts and practical methods, which are oriented to the justification and realisation of techniques and methods to raise funds for state needs. Due to the exceptional duration of the first stage of the



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financial science development, it is usual to underline its development in separate periods. One of the lead theoreticians of the financial science in the 19th century, Prof. Karl Rau (1792-1870) identified three periods of its development during the first stage:

1. unscientific state;
2. transition to a scientific processing;
3. scientific (rational) period [3].

The period of *unscientific state* was the longest; historians of the financial science are including Babylon, Rome and Ancient Greece times in this period. Already in the 2nd Century BC banking traditions were born. In the beginning, ancient banks were dealing with cash storage and later on developed practice of secured loans on real estate, commercial cargo and ships and elements of non-cash payments appeared.

It should be noted that already in the early Middle Ages in Europe methods of financial management practices were born and formed, and the Church played the prominent role in the formation of these practices.

Among the first financiers of the world were monks of the Catholic chivalric Order of the Templar, which were established in Jerusalem to protect pilgrims and local Christians from Muslims, a fraternity that existed 1118-1314. Knight-financiers managed not only to amass huge wealth, but also to lead such financial activities as:

- non-cash payments;
- audit services;
- granting of loans;
- supervision of funds flowing.

Monks had successfully implemented the main commandment of banking: the most important is not a trivial ability to hold funds, but also to put into effect beneficial, profitable operations with those funds. This was only the initial manifestation of the birth of the financial science, and there is not further evidence for significant systematic processing of financial sciences.

After studying scientific sources, one can conclude that Middle Ages are seen by many scholars as the beginning of a transition to the second stage of the development of financial sciences turning into a scientific. The 18th century is considered as a period of a change in terms of formation and strengthening of the financial science, namely the second half of this century many scholars date the emergence of systematic financial science as an independent direction.

According to historians, during these years so-called scientific or rational period of systematic financial science began. However the impetus for that was made by physiocrats work. The first representatives of a systematic financial science, German scholars Johannes Justi (1720-1771) and Joseph Sonnenfels (1732-1817) were experts in the field of cameral sciences. According to Sonnenfels, financial science is “a collection of those rules by which state gains its income in the most convenient way.” And Justi examined the essence of financial science in the broader aspect; in his book about teaching on revenues and public expenditure, he expanded the subject of a new science. He knew and not without a reason, that limiting the definition of finance only by revenues is hardly justified. According to him “financial science is



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a science about the rules, according to which a necessary means for covering public expenditure are saved and spent in a most appropriate way” [4].

In conclusion, *classical theory of finance* is a set of administrative and economic knowledge on the state and public unions finance management, this knowledge is based on systematization and development of methods on getting and spending of necessary funds.

Neo-Classical Theory of Finances

The period of formation and development of classical theory of finances, that lasted almost 200 years, ended in the middle of 20th century.

Evolutionary processes in economics during the Middle Ages led to the emergence of new organizational and legal forms of business management and to a significant complication of economic connections, which in turn contributed to the formation of specific financial practices that stimulated what became the private sector.

In the 16th-17th centuries, the center of economic life slowly moved from Italy to England. England dominated the sea in the development of trade industry. During this time new forms of business organization were born [3].

The majority of scientific research in the field of finance in the junction of 19th-20th Centuries was not related to financing activities of an enterprise. The attention was paid to systematization and generalization of methods of Treasury supplement using the tax system. This largely explains the fact that the theory of finance was mostly descriptive, but relevant monographies and manuals were similar to each other. Stability and stagnation in the development of financial science in its classical sense ended in the beginning of 20th Century. By this time classical finance theory was almost exhausted, and new trends in economic development led to a shift of emphasis in the field of science and practices that are related to finance management [4].

The efforts of the Anglo-American school of finance the finance theory received absolutely new content in comparison to the views of the scientists of 18th – 19th centuries. Up to a point it can be stated that centralized (or public) finances were developing and systematized under the classical finance theory. Decentralized finances and financial relations with foreign countries existed already at that time, but there were no any theoretical understanding and systematization of them. Only with the development of national and international financial markets and growing influence of decentralized finance bearers there was a need for conceptual bases of neoclassical finance theory, whose essence consists of theoretical understanding and substantiation of interaction between role and mechanism of capital market and biggest national and transnational corporations in international and national financial relations.

According to the author of the paper, the forties and fifties of 20th Century could be considered a fundamentally new stage in the development, logic and content of the theory of finance. Exactly during this years neoclassical finance theory got its design. The essence of its design is in theoretical understanding and substantiation of interaction between role and mechanism of capital market and biggest national and transnational corporations in international and national financial relations.



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By historical standards the emergence and development of the new theory went quite fast. The main reason for that was an exceptional demand from practices (development and internationalization of business, strengthening of financial markets, increase in banking sector etc.). Already by the end of fifties of the 20th Century, thanks to effort of the Anglo-American school of finance, the new direction completely separated from applied microeconomics and began to dominate in financial science. It should be emphasized that the transition from classical to neoclassical finance theory was not a unique, independent phenomena; it was carried out in the frame of the establishment of neoclassical economy and was theoretically supported by processing made by leading representatives of new direction – marginalism. The formation of neoclassical finances was connected to the evolution of economic theory and formation of neoclassical school of economics, in particular, with works of A. Marshall (neoclassical marginalist theory), W. Jevon (theory of utility), E. Böhm-Bawerk (theory of interest and capital) [3].

It can be stated, that neoclassical theory of finance is based on the following initial theses:

- the economic power of the state that means the stability of its financial system is largely determined by the economic power of the private sector, which constitutes the core of large corporations;
- the finances of business sector constitute the core of the states financial system;
- state intervention into activities of the business sector minimize them;
- from the available funding sources that determine the possible development of large corporation, the main sources are incomes and capital markets;
- internationalization of capital markets, commodities, labour leads to the fact that the general trend of the development of different state capital market financial system is the desire for integration [3].

Generally, it is possible to identify neoclassical finance theory as a system of knowledge on the organization and management of financial triad: resources, relations, markets. Key sections, which served as a basis for the formation of this science and (or) which entered into its component parts, were:

- 1) utility theory;
- 2) arbitrage pricing theory;
- 3) theory of capital structure;
- 4) portfolio theory and capital asset pricing model;
- 5) option pricing theory;
- 6) state-preference theory.

The author of the paper reflects the main differences between classical and neoclassical finance theory in the Table 1. We can conclude that between classical and neoclassical finance theories, a fundamental difference is in the content of financial resources. The classical definition is based on a product reproduction result, when under the financial resources we understand cash incomes, inflows and reserves, which are generated by business entities and a state and are intended for the purposes of expended reproduction, material stimulation of workers, satisfaction of social needs and financing of government expenditures.



Table1

The main differences between classical and neoclassical finance theories [2]

Classical finance theory	Neoclassical finance theory
Financial relations	
Part of economic relations in regard to distribution and redistribution of the social product cost.	Relations between different economic entities, which lead to changes in the content of assets and/or obligations of these entities.
Financial resources	
Incomes, inflows and reserves that are owned by or available to economic entities or State authorities and local government and that are serving the process of social reproduction.	Assets that help the entity to solve investment and financial problems. Financial resources are formed by combination of two type processes: <ul style="list-style-type: none">• finding and mobilizing finance resources;• investment: identification of directions and volume of attracted investment funds.
Financial tools	
Monetary policy tools are used: <ul style="list-style-type: none">• government regulated prices;• government regulations of bank's interest rates;• State tax policy;• currency exchange rate.	Financial obligations and financial law that is operating in a market, in a document format. Besides, to financial tools are related: <ul style="list-style-type: none">• asset evaluation;• recognition of property;• prognosis of changes in main asset characteristics.

In the neoclassical theory the nature of financial resources, in the context of their role in ensuring the continuity of the reproduction process, namely in the unity of two standard processes, includes:

- 1) finding and mobilising sources of funding;
- 2) determination of the direction and volume attracted investment funds.

In other words, financial resources are named assets, which help the entity to solve investment and financial problems. In determine the financial resources, the monetary character of finances will be pushed up by their price characteristics. This will find logical extension in the identification of the nature and content of financial tools.

A relatively new category of neoclassical finance theory is 'financial tool'. In the common meaning the tool means a way that is used for reaching something. In the classical finance theory, macroeconomic regulation on the integration of the financial flows is carried out into real investments mainly by monetary means (price regulation, bank interest rate, currency exchange rate, tax rates). The exception is the distribution of cash savings and incomes through public consumers fund that are mainly following social aims. In a real economic sector the term 'financial tools is substituted by 'financial resources', without basic market feature – legal characteristic. For example, the term 'own sources of finance' is not identical with 'the right of investor to a part ownership of business'. Not by accident no any legislation is without any rules



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that could regulate financial resources, furthermore there is a national investor protection institute.

In the neoclassical finance theory under financial tool is understood planning instrument. According to definition, financial law and obligations, which are circulating in a market, are marked in the planning instrument, in a document format. A financial 'tool' is any contract that gives financial asset to one organisation and financial obligation or partial ownership tool to another at the same time.

In the definition of 'financial resources' and 'financial tools', two moments are coming very close to each other and they are characterised as finance and as capital. This allows formation of organic connections of both in an entire system of a social reproduction relationship. In particular, the amount of capital is determined by clearing out the financial resources of economic entities from that part of financial tools that is defined by the meaning of 'obligations', In this case the volume of the ownership rights balances the volume of investments, but the currency of this balance, which can be formed by the end of each reproductive cycle, is the argument of strategic investors in this business.

The evolution of the finance theory has not changed the essence of this category, which can be determined as part of economic relations in accordance of distribution and redistribution of the gross domestic product price, incomes from foreign trade and of a part of national wealth. At the same time the target aspect is shifting in financial characteristics. Formation and use of monetary funds by business and state entities, in terms of neoclassical finances, is seen as intermediate result. The final result is understood as the provision of such proportions of financial allocation of the social product cost, which contribute to the aggregate public capital accumulation.

According to the author, thus in the neoclassical theory, finance refers to a part of economic relations, which arise between subjects of reproduction process on the distribution and redistribution of the social product value and a part of the national wealth that is directed to ensure an increase of financial resources and capital accumulation of business entity, as well as directed to finance state functions. Effective are such financial relations whose result is seen by the enlarged reproduction of total capital, mobilized by economic entities in the financial market and labour market. In this context the field of knowledge, named as "theory of finance" in recent years is complied with "theory of financial economics" or neoclassical theory of finance, whose self-contained direction is institutional finances.

Conclusions

Financial practice is for thousands of years older than financial science. There were many financial economies that were developing, expanding, became weaker and died, without knowing about the existence of financial science. Financial science appeared later than other socio-political sciences and it was established in 15th-16th century.

According to historical standards, financial science is a relatively young science in comparison to the historical development of other sciences, the development of financial science was considerably slow. It was developed by the development of science as such and by different disciplines, which were directly related to business management. In the following



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section of this paper will discuss the historical development of finances and is divided into the dichotomy of classical *theory of finance* and *neo-classical theory of finance*.

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In conclusion, *classical theory of finance* is a set of administrative and economic knowledge on the state and public unions finance management, this knowledge is based on systematization and development of methods on getting and spending of necessary funds.

According to the author of the paper, the forties and fifties of 20th Century could be considered a fundamentally new stage in the development, logic and content of the theory of finance. Exactly during this years neoclassical finance theory got its design. The essence of its design is in theoretical understanding and substantiation of interaction between role and mechanism of capital market and biggest national and transnational corporations in international and national financial relations.

It is important to use financial analysis for investment decisions, especially when an enterprise is rapidly developing. In addition to this it is important to use financial analysis to gain optimal structure of balance.

In this case by taking any decision that is important for business, this decision has to be reasonable by means of certain analytical procedures, whose sense and meaning are out of the frame of usual calculating or non-systematic actions.

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A MARKETING OPTIMISATION MODEL FOR CRM ACTIVITIES

– The Value of Communication for CRM –

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Keywords: Communication value, CRM, e-mail, post-mail, offline-replacement

Abstract

Purpose. Evaluate the importance of CRM for the hotel business and show the influence of an ongoing guest communication on the buying behavior (booking activities).

Design/methodology/approach. Descriptive analysis of the marketing campaign data of four 4-star hotels in Germany over a period of 4.5 years.

Research Limitations. I had no influence on the communication strategy respectively on other factors which influence loyalty like pricing, product or services.

Findings & Practical Implications. The analysis proves the assumption that communication plays a significant role within CRM to keep customers loyal. Further on the quality of the media channels e-mail and post mail could be proven. The result is that the replacement of post mailings through e-mail communication is at least questionable.

Originality/Value. The study is most likely the first analysis for the hotel business which shows the effect of guest marketing in a CRM context. The reason is that hotel companies so far had not the necessary campaign data available or the data was not linked to a central guest profile. This circumstance made it impossible to analyze the effect of communication on customer relationships.

Paper type: Research Paper.

1. Introduction

The purpose of this paper is to evaluate for the first time the long term effect of communication on Customer Relationship Management in the hotel business. The paper also describes the qualitative differences between e-mail and post mail. For the analytical part a quantitative analysis of the direct marketing actions of four hotels and the booking behavior of 5.222 consumers were tracked over a period of 4.5 years.

The management of Customer Relationships is part of almost each marketing department since information technology has revealed that a handful of “heavy users” accounts for a disproportionate share of most businesses’ sales. [1]



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The goal of CRM is to develop, keep and retain profitable customers and to increase finally the profitability of the organization. Many studies describe the effects: Reichheld and Sasser calculated with a profit boost by up to 100% by retaining just 5% more customers; [2] loyal customers intend to be less price-sensitive and would accept a 5% price increase in order not to endanger a relationship [3]; the retention of loyal customer's costs only 15 to 20% compared to the acquisition of new customers. [4] Summarized loyalty provides companies more security, more growth and a better profitability. [5] On top marketers have focused on building loyalty because the proliferation of alternative media outlets in print, radio, television, and the internet has fractured the media market and made mass market penetration strategies costly and difficult to execute. [6]

For the hotel business especially the soaring distribution costs forces a professional CRM strategy. Online Travel Agents like Expedia charges between 10 and 30% commission. [7] Since loyal customers intend to book directly an active CRM strategy is required for a booking channel and profitability optimization in the hotel business.

On top the relative low marketing budgets of hotel companies prevent expensive advertisement campaigns in prime mass media channels, which mean a certain hotel name even from multi-national brands do most likely not appear in the daily routine of the consumer. To see a certain hotel brand a consumer has to pass by which is obviously a main differentiator compared to other industries like for instance the automotive industry. Prestigious cars like Porsche, BMW or Mercedes are getting seen many times when walking through the streets in Western Europe. Just through the presence demand is generated and the brand is getting part of the awareness set of the consumer through an ongoing conscious and unconscious perception. This is obviously not the fact for the hotel business.

There is no doubt Customer Relationships are one of the most important success factors for the hospitality industry [8] and communication is an integral part of it. Compared to other industries hotels have one important advantage, they know who their customers are. Through the booking process hotels have access to the contact information of their clients; name, address and email are commonly stored in the hotel data bases. The usage of this data for direct marketing and CRM is a key asset [9] and almost each hotel is actively using this potential.

But how important is communication within CRM exactly especially for an emotional product like a hotel, characterized by a low buying frequency? Which marketing channel is how effective and where is the contact corridor, respectively what is the best frequency to generate measurable results? Summarized what is right marketing mix for a successful CRM strategy for hotels?

The Value CRM model which is proposed in this paper tries to more specify the role of communication and should provide a fundamental help for marketers in order to implement an efficient customer relationship management.

2. CRM

The question of Marketing is always, what is the best way to drive revenue? In general marketers can increase sales of their products in two ways. A) The company focuses on non-users in order to generate new revenue. This strategy is known as a penetration strategy, or B) a company induce existing customers to buy and use the own products and services more often



(called a frequency strategy). [10] Companies focusing on the frequency strategy are clearly engaged in Customer Relationship Management.

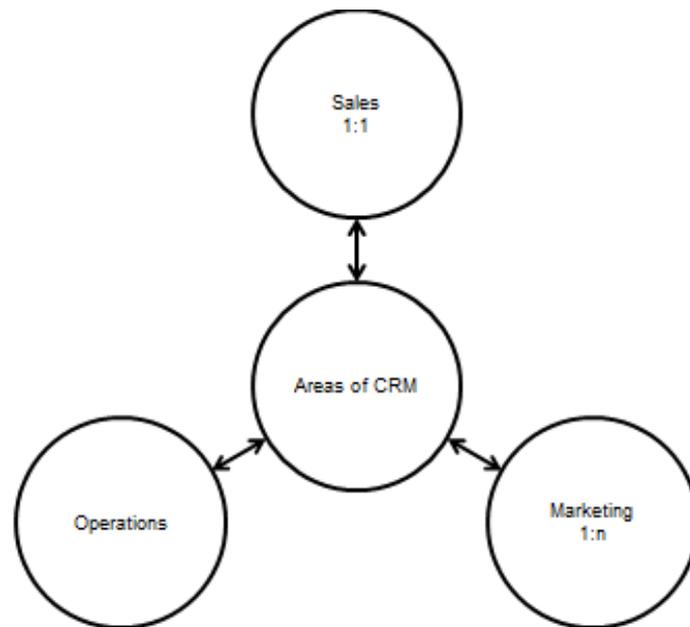


Figure 1. Areas of CRM (own image)

As seen in Figure 1 CRM can be divided into three areas from the organizational but also from the technological stand point. Sales departments and the used software solutions are mainly contact management systems for the 1:1 communication over email or phone. In Operations service employees need quick access to the most relevant guest data to process requests respectively to provide a better service at the point of sale. The third area is marketing, the quality of marketing relies on the knowledge stored of each individual customer from the different touch-points and its usage for an individualized communication. In marketing thousands or more recipients get contacted at the same time, mass communication as individualized as possible is the goal of a modern marketing. The buzzword in this context is behavioral marketing.

2.1. Ways to Generate Loyal Customers

Companies have four ways to retain customers: through the product, followed by the price, the promotion and the distribution channels. [11] These classic instruments, also called the 4 P's are enhanced by additional 3 P's for the service industry such as the hotel business. The P's are people, the physical evidence, for instance the hotel design and processes. [12]

Lynn stated 2008 that successful marketing comes not from loyalty programs, it comes from creating value in the form of a superior product and service offering, communicating that value to all users of the product category, and capturing that value through pricing. [13]

Many definitions for CRM exists; Grönroos for instance define Relationship Marketing as it is to identify and establish, maintain and enhance and when necessary also to terminate



relationships with customers and other stakeholders, at a profit, so that the objectives of all parties are met, and that this is done by a mutual exchange and fulfillment of promises. [14]

Summarized Customer Relationship Management (CRM) implies all efforts of a company to positively influence the relationship between a company and its customers in order to stabilize respectively enhance the relationship. [15] The focus of CRM activities should be keeping profitable customers and attracting those with a high calculated potential. This implicit that CRM is not for every customer; CRM is focused on valuable customers.

Harker (1999) who analyzed 26 different definitions of CRM comes finally to the result that an organization which is engaged in proactively creating, developing and maintaining committed, interactive and profitable exchanges with selected customers or partners overtime is engaged in relationship marketing. [16]

For the purpose of this paper I define CRM as the maintenance respectively the creation of relationships with hotel guests with the goal to increase customer revenues and buying frequencies (increase the share of wallet) in order to enhance the lifetime value. CRM is therefore not a single project it is more a management strategy centered around the customer with the clear focus on company profitability.

2.2. Loyalty Models

Several models describe loyalty mainly based on satisfaction; the American Customer Satisfaction Index (ACSI), the European Customer Satisfaction Index (ECSI), the Swedish Customer Satisfaction Barometer (SCSB) or the Norwegian Customer Satisfaction Barometer (NCSB). [17] Several endogenous and exogenous variables are included in the different systems such as performance, expectations, satisfaction or complaints. The measured outcome for all systems is loyalty but differently defined. For the SCSB loyalty is defined as repurchase behavior; within the ACSI model it is repurchase behavior plus price tolerance; in NCSB model repurchase behavior plus intention to recommend and in the ECSI model repurchase behavior plus intention to recommend plus intention to buy addition. [18]

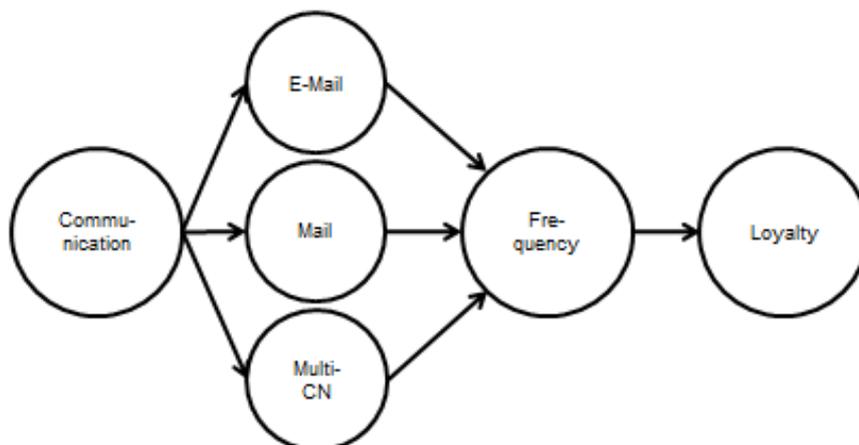


Figure 2. Value CRM Model by Toedt



Ball, Coelho and Machás (2004) enhanced the ECSI model by the variables communication and trust. They identified satisfaction as the most important variable to the explanation of loyalty, but the second highest effect on customer loyalty has the variable communication. They argue that in a regulated market with little differentiation in basic services, such as many hotels, communication may be an important strategic tool to differentiate a company. They state that helpful, clear and personalized information not only enhance satisfaction and trust but also loyalty to a significant extend. Customer expectations, perceived value, complaints and trust present lower but significant effects on loyalty as well. [19] None of the systems so far are applied to the hotel business.

The approach of the author to loyalty research is to add the sub-variables channel and frequency to the factor communication to answer the most important question in marketing: “What channel should be used and what is the right frequency?” Figure 2 describes the different variables and the model which is named by the author as the “Value CRM Model”. Within “Value CRM” loyalty is measured by the repurchase behavior, which means hotel bookings made after the receipt of a communication.

2.3. Effects of CRM

The effects of customer loyalty are described in many articles. Hellstrand states for instance that the long-term success of a company is based on guest loyalty and retention which consequentially results in future revenue [20]. Gruner describes the effect of CRM in the way that loyalty gives a company more security, a better growth rate and a better profitability [21]. Beside such global statements the effects of CRM can be divided into cost savings and revenue effects. The retention costs for instance are 15 to 20% lower than the expenses needed to acquire new customers. [22] Loyal customers are on top less price-sensitive [23] and the increase of the retention rate of 1% raise the company value of 3 to 5%. [24]

Bruhn adds a third effect, the effect of mouth-to-mouth communication and the value of recommendations. [25]

3. Communication Channel Value

The efficiency of advertisement is decreasing. Thousands of competitive marketing messages almost “bombard” the consumer in the industrialized world. [26] Therefore it is an ever harder task that a transmitted marketing message is getting perceived by the consumer. That is one reason why direct communication is more and more in the focus within the marketing departments.

In 2010 95% of the German companies were involved in direct communication respectively dialog marketing. From the 76.2 billion spent for advertising almost two-third went into dialog marketing. [27]

It is clear that the communication between a hotel and its guests is an important area of CRM and in order to generate the intended outcome the right communication channels have to be used. [28] But although marketing efficiency is an important topic for years one question is not answered yet, what are the right channels, what is the most efficient marketing mix for a successful CRM strategy for hotels?



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In general the value of communication can be seen from two perspectives: from the receiver and from the transmitter. A receiver of a marketing message evaluates the value of a communication based on his individual needs, goals, interests, situation etc. High content relevance and the media acceptance add value, whereas low content relevance or media acceptance decreases value. [29] It can be stated that different media channels have individual characteristics and limitations. [30]

The value of a communication from the transmitter, in our case a marketer, can finally only be economically. Even if for instance brand building is the predefined goal of a communication the ultimate result is generating revenue. Therefore I follow Harvey, Mogg and Enis who evaluated the value of communication respectively its effectiveness in terms of conversion of consumer attention to purchase action. [31]

It can be summarized that the communication of a product or service can either add value, decrease value or it does not influence value. The key issue for marketers is finally the reaction to the communication.

3.1. E-Mail

The media channels which are of interest for this paper are direct mail and e-mail. These are the two dominating media types in direct marketing today, especially in the hotel business. About 60% of the companies in Europe are engaged in e-mail marketing. It is the most common online-marketing channel at the moment. [32] A survey in 2010 revealed that the 30 biggest hotels (revenue wise) in Germany use e-mail as part of their customer relationship management strategy. E-mail was the most used channel of the hotels. [33] The reasons for the triumphal procession of e-mail marketing are the low costs and the easiness of the channel to stay in touch with the own customers. [34] Another plus factor is the easy possibility to answer. E-mail newsletter generates often response rates of 10% and more. [35]

Beside the technological aspects the acceptance of e-mail within the population has been increased over the last years. In 2010 65% of the European population used the internet to send and receive e-mails. In 2002 the share was about 35% (see Eurostat 2010).

3.2. Post Mail

Nevertheless direct mail is still the number one of the direct marketing channels. But through an increasing cost pressure in 2010 the expenditures dropped by 8% to about 9.4 billion Euros in Germany. [36] This trend can also be seen in the hotel business. Especially the US-Hotel companies avoid almost completely post mail. As part of a replacement strategy more and more organizations use solely electronic channels. It is at least questionable if the replacement strategy of offline mailings is correct based on the assumed differences in quality of both media types.

4. Analyzed Data

4.1. Data Collection

The data was collected through the CRM system *dailypoint*TM. The software is developed and distributed by TS&C, a Munich based company (*www.TS-and-C.com*). TS&C is one of the



leading providers of analytical and communicational CRM software within the hospitality industry and provides with *dailypoint™* a software family for marketing experts. Clients are individual hotels as well as hotel groups like Maritim Hotels, InterContinental and Hyatt.

4.2. Description of the Research Data

The goal of the research was to measure the influence of relationship marketing on the booking behavior of existing customers.

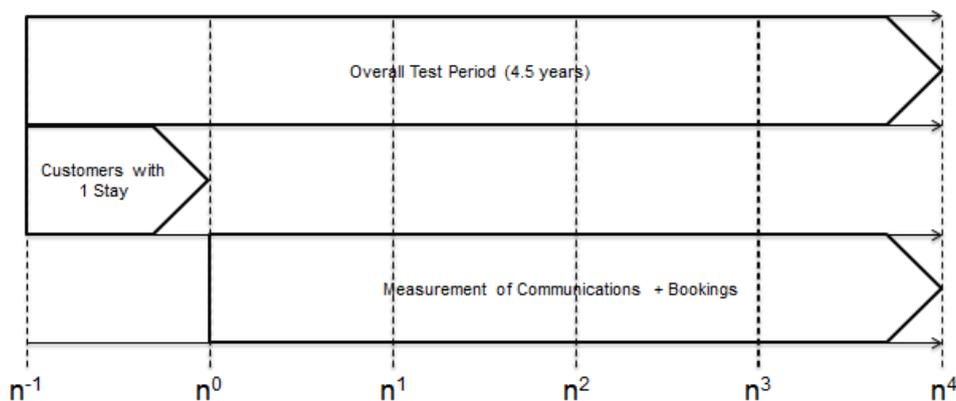


Figure 3. Description of Test Group

The data was collected from four 4star Hotels in Germany, three business hotels and one resort, all member of the same brand. The test group (see Figure 3: Description of Test Group) consisted of customers who had their first stay within n^{-1} and n^0 (2nd half-year 2007). Through this restriction only the customer group of first-timers was included in the research in order to evaluate the influence of the communication actions on the repeat purchase behavior. Existing best customers or other marketing segments which already showed some kind of behavioral loyalty through the booking of several stays could be excluded through this selection filter.

From n^0 to n^4 all direct marketing actions were tracked as well as all bookings made by the test group. The reviewed period consisted of four years from 2008 to 2011. Within this period all completed bookings of the preselected customers were measured. This means the departure date of the last stay must be before n^4 . The period of four years was taken because of the low buying frequency of a hotel compared to other products and services.

The limitation of first timers was necessary from a communication perspective since the participating hotels all run marketing campaigns based on the RFM++ segmentation developed by TS&C. Using this method hotels normally intend to use expansive marketing channels like post mail only for valuable guest segments, on the other side online marketing actions like email newsletter are normally dispatched to all available guests since the associated costs are extremely low.

The sent communications were either relationship or transaction oriented. Marketing actions linked to a stay like pre- and post-stay communications were excluded since otherwise the communication frequencies were be influenced negatively.



4.3. Analysis

The analysis was done with the software SPSS statistics Version 20 during fall 2011. In the first step the correlation between the variables were analyzed. With the pearson correlation systematic it was tested how strong the correlation between the variables number of bookings and the different communication channel was.

Correlations

		Tot#_Email	Tot#_Mail	Total_Comm#	TotalBookings_Inkl2007HJ2
Tot#_Email	Pearson Correlation	1	0.337*	0.619*	0.237*
	Sig. (2-tailed)		0.000	0.000	0.000
	N	5222	5222	5222	5222
Tot#_Mail	Pearson Correlation	0.337*	1	0.948*	0.302*
	Sig. (2-tailed)	0.000		0.000	0.000
	N	5222	5222	5222	5222
Total_Comm#	Pearson Correlation	0.619*	0.948*	1	0.332*
	Sig. (2-tailed)	0.000	0.000		0.000
	N	5222	5222	5222	5222
TotalBookings_Inkl2007HJ2	Pearson Correlation	0.237*	0.302*	0.332*	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	5222	5222	5222	5222

* Correlation is significant at the 0.01 level (2-tailed)

Figure 4. Correlation Analysis

As seen in Figure 4 the correlation for e-mail on the number of bookings was 0.237 for post mail 0.302 and in the case that a recipient received communications through both channels the correlation value was 0.332. Mail and multi-channel communication were above 0.3 and therefore significant. For the channel e-mail a correlation could be identified though not significant.

Dependent Variable: TotalBookings_Inkl2007HJ2

Equation	Model Summary					Parameter Estimates			
	R Square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	0.111	648.480	1	5220	0.000	2.207	0.480		
Logarithmic ^a	.	.	.	.	.	.	.
Inverse ^b	.	.	.	.	.	.	.
Quadratic	0.114	335.578	2	5219	0.000	2.031	0.652	-0.006	
Cubic	0.123	243.390	3	5218	0.000	1.782	1.092	-0.036	0.000
Compound	0.339	2672.383	1	5220	0.000	1.382	1.079		
Power ^a	.	.	.	.	.	.	.
S ^b	.	.	.	.	.	.	.
Growth	0.339	2672.383	1	5220	0.000	0.324	0.076		
Exponential	0.339	2672.383	1	5220	0.000	1.382	0.076		
Logistic	0.339	2672.383	1	5220	0.000	0.723	0.927		

The independent variable is Total_Comm#.

a. The independent variable (Total_Comm#) contains non-positive values. The minimum value is 0.00. The Logarithmic and Power models cannot be calculated.

b. The independent variable (Total_Comm#) contains values of zero. The Inverse and S models cannot be calculated.

Figure 5. Model Summary



The next step was a regression analysis. With the help of the curve-fit methodology (see Figure 5) the best fitting equation was defined (see next Figure). The mathematical equations which were applicable are growth, compound, exponential and logistic.

For this paper the exponential equation was selected. The formula shows the influence of the communication frequency on the number of bookings of hotel guests. To reduce the volume of the analysis only the effects of a multi-channel communication was analyzed. The equation of course can also be applied for the other media types.

$$Y = a * x^b$$

a = initial amount (bookings); x = frequency; b = exponential growth

$$Y = 1.383 * x^{0.076}$$

The graphic below (Figure 6) shows on the x-axis the number of communications and on the y-axis the calculated number of bookings. The result is a digressive increasing function for the communication effects within CRM.

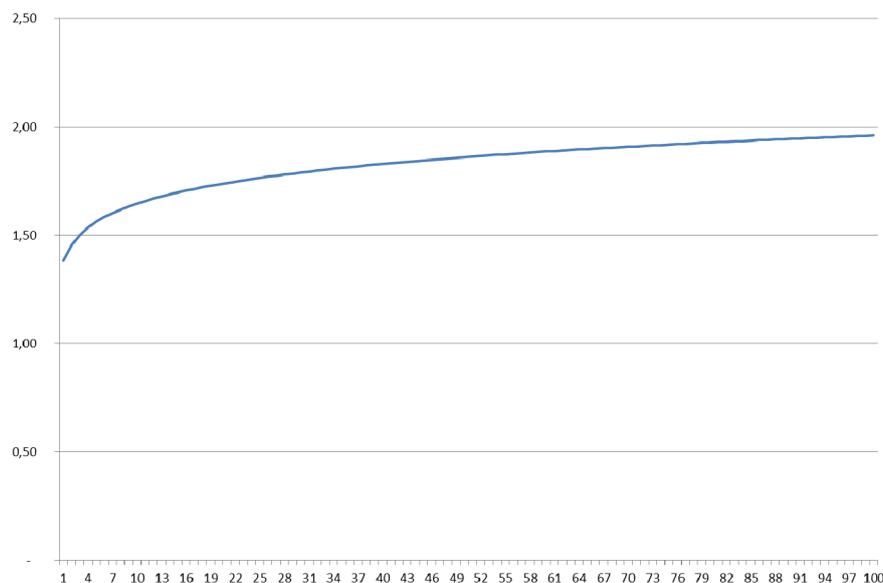


Figure 6. Response Function

An s-shaped graph was denied.

5. Findings& Managerial Implications

Ceteris paribus S-shaped response functions as described in the literature can be denied for hotel CRM activities. The graph shows that learning effects are not necessary for communications with existing guests to initiate hotel bookings; the booking decision seems to be more emotionally driven than cognitive based.



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The digressive increasing graph of the exponential equation reveals a strong effect on the booking behavior for up to 27 marketing messages. This means the communication corridor respectively the best contact frequency to create remembering effects and booking impulses is 6 weeks. The denying of an s-shaped graph implicit also that a minimum frequency is not needed for known products.

Another finding is that the correlation between bookings and communication frequency increases over the years. [37] This underlines the necessity of CRM activities for hotels and shows the importance of an ongoing communication.

The analysis proves finally the assumption that the channel e-mail has not the same value and quality as post mail. The replacement strategy which is in place in many companies, which means e-mail communication replaces almost completely post mail, is at least questionable.

6. Research Limitations

The result of relationship marketing actions is correlated to many factors like the product and service quality, the satisfaction level or the pricing strategy of a company. In the service industry 7 P's describes the areas of a company which influences finally the business success: Products, Price, Place, Promotion, People, Processes, Physical Evidence. All these factors were completely under the control of the participating hotels.

Within the marketing action itself I had no influence on the provided content, the frequency, the layout, the target group or anything else associated with the communication strategy, the setup or the distribution of the marketing actions.

7. Conclusions and Recommendations

Based on the results of this research the importance of communication over time to keep customers loyal can be regarded as verified. Therefore companies should try to continuously stay in touch with its customers to generate remembering effects and bookings. Both post mail and e-mail plays a significant role within the construct of loyalty. To keep both the communication frequency high and the associated costs acceptable hotels have to use the channel e-mail. Therefore it is recommendable to install a data quality management to review the data collection and the data quality at the different touch points.

It can be assumed that the results of the research are applicable to other industries if they are characterized by a low buying frequency, a location based product and a low usage of mass media channels.

For future research the author suggests to include the variables content and timing to the CRM model. Also the integration of further channels like Facebook is recommended.

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THE IMPACTS OF GROWTH ON COMMERCIAL INNOVATION IN THE AIRLINE INDUSTRY

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Keywords: airline industry, small- and medium sized, growth, innovation, Corporate Entrepreneurship

Abstract

In the last forty-five years, the airline industry has undergone an expansion unrivalled by no other form of public transportation; however, these high growth rates have produced only marginal profitability. External factors such as high prices for jet fuel, intense competition and elevated costs for security, given the threat of terrorist attacks, have caused airlines to restructure their organisations, use synergies within alliances and cut costs. Trends in customer needs and behaviours, demographic developments and the general competitive market environment force airlines to constantly revise their strategic directions and critically review their existing business setup. This is not only a challenge for (long) established carriers with organizational capabilities to navigate change and innovation, moreover, it is a key success factor for the future profitability of small- and medium sized market players. Airlines, possessing a relatively high growth rate will therefore have to especially reflect on their key competencies, strategic aims and will have to critically answer the question of how they want to differentiate themselves from competing market players. For those growing businesses, it is therefore essential to navigate growth in order to overcome pitfalls when innovating and preparing for their successful future. Corporate Entrepreneurship (CE) promotes innovation performance in small- and medium sized companies and therefor seems to be a viable tool for airlines to navigate novelty and innovation. This paper aims at investigating the concept of CE, initiated by economic growth for navigating commercial innovation in the small- and medium sized airline industry.

1. Introduction

Twenty years after the pioneering flight of the Wright Brothers at Kitty Hawk in the middle of the 1920s, commercial aviation began and carried some 6,000 passengers a year, before the industry took-off after the invention of jet airplanes. The era of large-scale commercial air transportation however began, when peace was restored after World War II.



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Today, the airline industry constitutes the backbone of the world's largest industry, which is travel and tourism: approximately 11% of global consumer expenses are spent in this industry, employing one in nine people of the global workforce. Although the airline industry is highly fragile and heavily influenced by external factors, such as environmental disasters (e.g. tsunamis, volcanic eruptions, earthquakes etc.), terrorism or global pandemics such as SARS, the industry is expected to grow by an average rate of approximately 5% until 2020 (Hanlon 2007, p. 1).

The environment within and around companies, especially around airlines, is constantly changing. Many businesses define growth as their core objective in today's dynamic market environment in order to stay competitive. Facing intense competition, companies must be active in finding new and innovative ways to develop their business further, increase their capabilities for innovation and to grow (Aloulou and Fayolle 2005, p. 21). All of the above is especially applicable for the airline industry, which can be seen as one of the most competitive industries in the world. Growth, however, has many facets, which need to be critically reviewed in order to make the right and most beneficial decisions to the business. Successful growth, therefore is not only heavily dependent on skilful leadership and management, but also on organizational capabilities involving a multitude of dimensions, influencing its success (Merson 2011, pp. 31). These dimensions include employees as well as the organizational capability to innovate, speed, knowledge, financial aspects and various external factors – to mention just a few. Small- and medium sized enterprises are very often lacking the underlying capabilities to strategically innovate and to manage novelty. Many businesses grow too fast or go into wrong directions without strategic intents. This is when growth creates a certain crisis situation within the organisation and thus requires change and innovation for improvement. Corporate entrepreneurship (CE) is as an instrument of strategic management for steering innovation and change within existing organisations (Schendel 1990; Guth and Ginsberg, 1990; Frank 2009). Moreover, CE can be defined as an approach for promoting and sustaining competitiveness and transforming organisations into opportunity-recognizing entities for value-creating innovation (Guth and Ginsberg 1990, Miller 1983, Lumpkin and Dess 1996). The causes for CE very often are associated with a variety of pressing problems within companies, such as economic decline, weaknesses of managerial competencies, decreasing profits, stagnation, extensive bureaucracy, or – growth (Kuratko et. al. 1990, Stopford and Baden-Fuller 1994, Frank 2009).

As small- and medium sized enterprises are very often lacking organisational capabilities to innovate, CE can be seen as a viable tool to introduce novelty within existing organisations.

High growth rates in the airline industry have, paradoxically, not always resulted in elevated profitability. Especially small- and medium sized carriers are once again facing the big challenge of developing their business models further in order to successfully navigate through the quickly changing market environment. Differentiation seems to be at the core of a future-oriented and sustainable commercial strategy for many airlines. Small- and medium-sized carriers have to especially address this issue, as the power of their distribution and marketing systems are endangered to perish beside those of competing large, mega and meta-carriers, referring to global alliances. As growth, however is a strategic goal for many commercial – even small- and medium-sized airlines, it is of vital importance for them to know the influence of growth on distribution and innovation for creating sustainable competitive advantages and to navigate in the right strategic directions. Moreover, small- and medium sized airlines must first



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carefully define and review their strategic growth objectives and then reflect those with their organizational capabilities to grow and innovate in order to be successful. These capabilities include the organizational structure, competencies of management and further resources (Aloulou and Fayolle 2005, p. 30). Strategic innovation, therefore plays an integral role in the growth of small- and medium sized airline businesses. Sometimes, technology is perceived as the only way of innovation as a source for economic growth. In fact, however, innovation can have an influence on various aspects beside technology, such as the company itself, its organizational dimensions, its customers and its value chain (Moingeon 2006, pp. 50). Without doubt, innovation can contribute to economic growth and sustainable business development. But how does innovation become reality, and what actually is innovation? Johannessen, Olsen and Lumpkin (2001, pp. 20) explain innovation as newness around the questions of what is new, how new and new to whom. Among the numerous attempts in the literature trying to explain the term, these three questions seem to be simple and understandable means of explaining the construct. This implies that it might always heavily depend on the point of view whether something can be characterized as innovative, or not. When American Airlines introduced the world's first frequent flyer program in 1981, it was a breakthrough innovation, causing many other airlines around the world to also introduce their loyalty schemes. Although these were innovative for the individual carrier, the nature of the innovation itself has lost its innovative character with every frequent flyer program launched. Innovation can be triggered by a wide variety of different factors. One of the most interesting theory, trying to explain why innovation occurs states that it needs a certain situation of crisis, which requires new and alternative approaches in order to overcome the underlying challenges (Müller 2006, pp. 61). This 'corporate hopelessness', in turn promotes the creation of new ideas and thus fosters innovation. Obviously, American Airlines was facing the challenge that many customers bought their air tickets with competing carriers, which caused them to create something new in order to retain their clients. This simple example illustrates how innovation can work in practice. Moreover, big organizations, such as American Airlines, are more likely to innovate faster and more powerful as compared to small and medium sized airlines, given their organisational capabilities. The challenge for small- and medium sized businesses is to allocate their resources in a way, which allows them to stay and even enhance their competitive strength through entrepreneurial thinking, organisational learning, innovation and change (Frank 2009)

This paper aims at investigating the framework of innovation and CE in the small- and medium sized airline industry.

2. Problem Statement

In order to understand the framework between CE and innovation better, it is important to gain a better understanding about the terminology. Firstly, Schumpeter (1961) viewed entrepreneurship as the primary catalyst for innovation, which has been supported by a number of different authors in the past (e.g. Drucker 1985; McGrath 1996). Moreover, entrepreneurship deals with why and how economic opportunities arise, and how organizations and individuals make use of them (Shane and Venkataraman 2000). The major necessary distinction between entrepreneurship and CE, which is also referred to as intrapreneurship, however, is that CE promotes entrepreneurial behaviours within already existing organisations (Echols and Neck



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1998). In contrast to entrepreneurs, corporate entrepreneurs, or intrapreneurs are most likely not engaged with any direct capital in the organisation. The second term, innovation, has been defined in a multitude of different ways and has therefore gained greater ambiguity in the literature (Garcia and Calantone 2002), which will not be covered in great detail within this paper. Innovation, however consists of two main components: products and processes. It involves a variety of different phases, such as research design and development, idea generation, prototype production, marketing and sales (Knox 2002, Rothwell 1994). Moreover, it describes new ideas and the potential for improvement through change, and can be defined as (Covin and Slevin 1991; Knox 2002; Lumpkin and Dess 1996):

“a process that provides added value and a degree of novelty to the organisation and its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialisation”.

As the airline industry is traditionally known for high growth rates and rapid expansions, growth is a critical issue on the strategic agenda of many commercial airlines. Starting with the advent of commercial jet airplanes in the late 1950s, the business model of future (i.e. growth) oriented airlines has completely changed (Golightly 1967, p. 67). This was when – all of a sudden – competition became increasingly intense and technological innovation led to modern marketing and distribution. Still today, technological innovation plays a critical role in commercial aviation. Innovations like the introduction of the first supersonic passenger aircraft Concorde, high-capacity airplanes like the Airbus A380 or even the internet have changed the whole industry – on a more or less sustainable basis. Despite technological innovation, marketing and distribution has fundamentally changed as well. As a consequence of the development of US mega-carriers, many small-, medium- and even large-sized airlines all around the world have had to revise their strategic directions and consider alliance strategies for their profitable future. In fact, small- and medium-sized airlines will have to organize their business model in a way to cope with globally operating mega-brands (Chan 2000, pp. 506). The capabilities to adapt to changing market developments and to innovate, therefore, seem to be central to any small- and medium sized airline business in the future. Moreover, airlines need to find innovative ways to stay competitive and enhance their business models (Shaw 2007, p. 228). Given its adventurous character and its public dimension, the airline industry has constantly found itself in the social and economic limelight. Thus, it has always been a major innovator of marketing and distribution strategies (Rapp 2000, p. 317).

3. Relevance of Corporate Entrepreneurship

Small- and medium sized airlines are currently heavily confronted with intense market dynamics. External factors, such as activities by competing carriers, new products and services, new technologies and distribution solutions require the capability to quickly react to changes in the competitive environment. Businesses are therefore forced to adapt their internal organizational development dynamics to the external dynamics of the market, thus, to create a co-evolutionary linkage between the organisation and the market (Eisenhardt and Galunic 2000, Lewin et al. 1999). This, in turn requires an organizational design and culture suitable for the market environment, which enables the business to cope with market developments and to



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sometimes influence and break rules within the industry, following the concept of “creative destruction” (Schumpeter 1934, 1993).

In order to grow, companies need to understand the competitive entrepreneurial spirit similar to what they had in the very early phases of their economic history. It has proven successful for growing businesses to stimulate entrepreneurial behaviours and mind-sets within their organisations and to allow groups of individuals to operate independent and self-dynamic (Shulman et al. 2011, p. 40). This is where the concept of CE comes in place to stimulate and navigate growth. CE shall promote the organisation’s attitude towards innovation and development at least to such an extent that the business can cope with the surrounding market dynamics, as described above. Thus, a practical goal of CE is it, to promote and support entrepreneurial behaviour within existing organisation. The relevance of CE results from increased competitive intensity, growing environmental- and market dynamics as well as from growing complexity in economic systems (Miller 1983). Environmental factors include uncertainty, risk and change (Amit et al. 1993, Braganza and Ward, 2001). Furthermore, the industry life cycle (Porter 1980) plays an integral role in the strategic behaviour of companies and thus has an important effect on the relevance of CE (Covin and Slevin 1991). A large number of companies react to growing competition with non-entrepreneurial answers and strategies, such as restructuring and reorganisation. The really valuable answers to those challenges would however be strategies around opportunity recognition and sustainable innovation. Businesses, which are following the CE approach will increase their innovation activities through strategic re-orientation and corporate venturing, which bundles key competencies and knowledge (Füglister, Müller and Volery 2008). It is evident that innovation plays a key role within the concept of CE. Linking innovation with CE, the following definition helps to understand their framework (Shaw et al. 2005):

“CE can be defined as the effort of promoting innovation in an uncertain environment. Innovation is the process that provides added value and novelty to the organization and its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialization. Within this process the principal roles of the corporate entrepreneur are to challenge bureaucracy, to assess new opportunities, to align and exploit resources and to move the innovation process forward. The corporate entrepreneur’s management of the innovation process will lead to greater benefits for the organization.”

Morris and Sexton (1996) claim that innovation is at the core of the CE concept as it combines entrepreneurship and management. While the initial opportunity is recognized through the implementation of innovation and change, a certain phase of exploitation follows. This leads to the aspect that CE and management are two complementing perspectives within an organisation. While management is concerned with the optimal allocation of resources and with the coordination of activities, CE focuses on the generation of innovation, resulting in the recognition of new business opportunities. This requires organisational resources and the development of organisational competencies to implement strategic options. Moreover, CE follows the logic of maximization of opportunities and chances, while management focuses on the creation of competitive advantages and on minimizing losses (Michael, Storey and Thomas 2002, p. 45).



4. Innovation through Corporate Entrepreneurship

In order to explain the concept of CE, various approaches can be followed. Steinle and Draeger (2002) distinguish between a number of different approaches: the person-oriented approach, the organisation-oriented approach, the strategy-oriented approach and the culture-oriented approach. The person-oriented approach focuses on the personalities of the intrapreneurs and attests them very specific characteristics and traits such as high motivation, creativity and the aspiration for autonomy. The challenge for the management is to identify and to promote those intrapreneurs, who are generally able to combine two major tasks: the development of a vision and its realisation. The organisation-oriented approach distinguishes between structure and process. While the structural focus emphasizes the creation of organisational units, which can act autonomously, the process focus targets the innovation process, ranging from idea generation, choice and implementation). The strategy-oriented approach targets the organisational power to innovate and entrepreneurial thinking. Morris, Kuratko and Covin (2008, cited in: Kuratko and Audretsch 2009) describe an entrepreneurial strategy as:

“a vision-directed, organization-wide reliance on entrepreneurial behaviour that purposefully and continuously rejuvenates the organization and shapes the scope of its operations through the recognition and exploitation of entrepreneurial opportunities.”

This leads to the culture-oriented approach, which attempts to create an entrepreneurial culture, involving characteristics such as emotional commitment, a sense of responsibility and caring, striving for high performance standards, tolerance for defects and errors and the support of the management for the allocation of resources in order to generate ideas and for opportunity recognition (Ireland, Covin and Kuratko 2009). In this context, it is fundamental to have the appropriate resources available within the organisation. Kirton (2003) argues that people solve problems and develop solutions in different ways. On the one hand, there can be real innovators, who tend to reject the commonly accepted perception of problems and attempt to redefine them. On the other hand, there are adaptors, who tend to accept problems and their constraints. This group of individuals is creating very few novel and creative solutions but is confident in implementing solutions effectively, not questioning their weaknesses. As described by the various models of CE below, human factors play a vital role in the entire framework between CE and innovation for growth.

There are numerous models trying to conceptualize CE. Kuratko and Welsch (1994) attempt to reflect the various models and come to the conclusion that many of them involve external factors as well as strategy, structure and person-related variables, which are reflected in the various CE approaches, as discussed above. A commonly accepted model is the one by Guth and Ginsberg (1990), which states that CE is expressed by extensive innovation performance and strategic renewal. These consequences are explained by variables around environmental issues, leadership, strategy and structure. This model, however can be criticised because it is lacking a holistic and a process view of CE, which is integrated by the conceptualisation by Aloulou and Fayolle (2005). Their model is also based on an environmental view of CE-driven businesses, however it differentiates between an internal and an external environment. The external environment focuses on macroeconomic aspects as well as legal-, socio-cultural, technological and natural aspects. The competitive environment emphasizes the competitive situation within an industry and is oriented towards suppliers, customers, substitution products, new market players



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and rivalry among existing firms. The internal environment deals with culture, structure and strategy as well as with resources, competencies and routines. The entrepreneurial orientation within the model of Aloulou and Fayolle results from the external and internal environments acting as suppliers for chances and resources. According to their argumentation, companies following the concept of CE will have aspects of chances and resources as key elements integrated in their corporate (entrepreneurial) strategy. Very few models explicitly focus on the processing of information within CE, which is referred to as “environmental scanning”. The micro model of entrepreneurship and innovation (Shaw, O’Loughlin and McFadzean 2005), however refers to those environmental factors in more detail, as described below.

Shaw, O’Loughlin and McFadzean (2005) have developed models of CE, which integrate the element of innovation and conceptualize the frameworks from a macro- and micro standpoint. The macro-model concentrates on the environmental drivers of innovation, the need of society and advances in technology as well as on the frequency and rate of innovation development, as depicted in the illustration below.

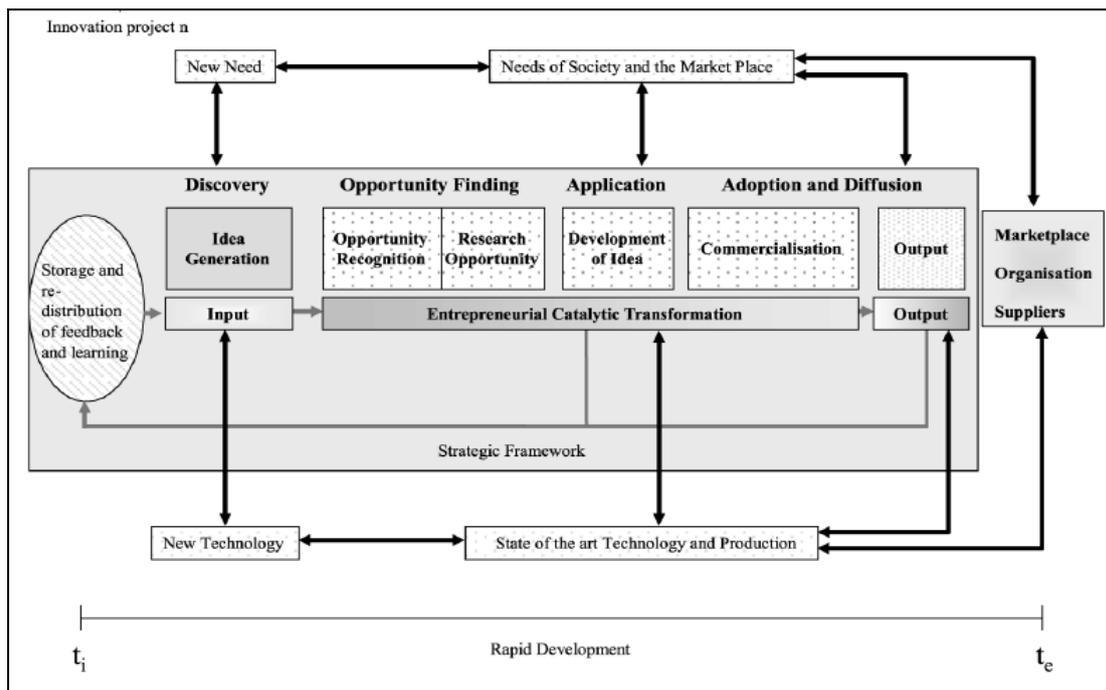


Figure 1. The macro model of entrepreneurship and innovation (Shaw, O’Loughlin and McFadzean 2005, p. 395)

According to the model, companies can respond to environmental challenges or future opportunities by innovation. Thus, new needs of society and the market place act as initiating factors for the innovation process, which is very often linked to uncertainty, risk, and change (Amit et al. 1993; Braganza and Ward 2001). Koontz and Weihrich (1990) extend the initiating factors for innovation by unexpected events, alterations in demographics, changes in industry



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structure and customer need recognition. Technology also plays an integral role in the innovation process as new technology is an important push-factor impacting innovation (Roberts 1988). Initiated by external factors, the innovation process gets started, which involves the stages of idea generation, opportunity recognition, research opportunity and finally the further development of the idea. This is followed by the commercialisation step, which includes the adoption and diffusion of new products and services and leads to following output stages of innovation. The micro model will further elaborate on the innovation process.

Complementing the macro model of entrepreneurship and innovation, the micro model focuses on the underpinnings of the CE and innovation process, which can be categorized by five elements:

- Inputs
- Entrepreneurial catalytic transformation
- Outputs
- Contextual factors
- Relationships between the various elements.

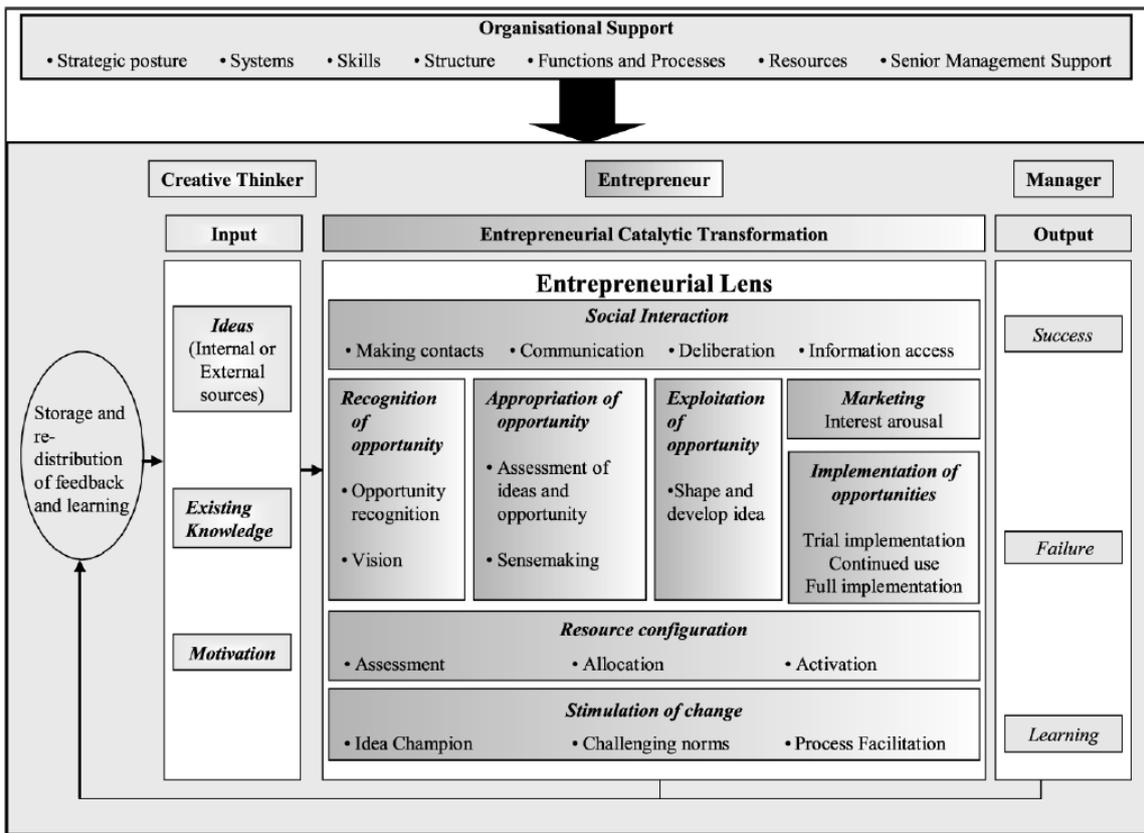


Figure 2. The micro model of entrepreneurship and innovation (Shaw, O’Loughlin and McFadzean 2005, p. 397)



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Inputs are generated through internal or external ideas, existing knowledge and motivation. As Amabile (1996) and Couger (1995) state, creativity is at the core at the configuration of the innovation process and thus assists in the development of new ideas. Through the entrepreneurial catalytic transformation, creative inputs are being transformed into measurable outputs, which can be success, failure or lessons learned. In this stage, intrapreneurs, or corporate entrepreneurs, will manage and steer the innovation process in a proactive manner in order to generate success. They will recognize opportunities, assess and evaluate them, shape ideas, and will finally promote them for being implemented.

Generally, one of the underlying aims of CE is to create value for the organisation and to promote wealth creation through innovation (Drucker 1985; Ireland et al. 2001). In order to evaluate whether success or failure can be attested at the end of the CE funnel, Aldred and Unsworth (1991) as well as Zahra (1991) suggest that successful CE manifests itself through the development of new markets, improved products, services and applications as well as through value creation, organizational renewal and growth. Critically reflecting the innovation process, as depicted in Figure 2 and described above, capturing knowledge and learning from experience are the final – and integral – steps. These are independent from success or failure, but most likely the success or failure of future innovations will be dependent on them (McGrath 1999; Schaffer and Paul-Chowdhury 2002). Creative thinking and entrepreneurial behaviour alone, however, will not be sufficient ingredients for successful innovation performance in small- and medium sized companies and airlines. Moreover, there are positive and negative characteristics as requirements for innovation performance (Dömötör and Franke 2009). Factors promoting innovation performance are high flexibility referring to organisational design and structure, linked to low bureaucracy, relatively low complexity and innovation-promoting entrepreneurs and intrapreneurs. Harming factors include a lack of financial resources to fund innovation, limited personnel resources, lack of strategic and tactical thinking, low methodological expertise or innovation-harming entrepreneurs.

5. Conclusions

This paper has elaborated the framework of innovation and CE in the small- and medium sized airline industry. CE deals with the ability of companies to cope with new market opportunities and to recognize them for their business. On a functional basis, CE creates a number of management challenges, which include the identification of strategic opportunities, the development of corresponding business plans, the allocation of resources and involves key elements such as structure, strategy and culture. The relevance of CE results from growing environmental dynamics and competitive intensity and should promote organisation's abilities to cope with these challenges on a pro-active basis to elevate the probability of success for the business. Thus, CE is inextricably linked with innovation performance and change. As the macro and micro model of entrepreneurship and innovation illustrate, creativity stands at the very beginning of every innovation process. Although creativity, entrepreneurial thinking and behaviour will promote innovation, there are certain external factors, which are not within the scope of organisations to influence, but relevant for the success of the innovation processes. CE can be defined as a strategic attitude, which focuses on the recognition, appropriation, exploitation and implementation of opportunities. The task of CE, therefore is it to explore why



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and how these opportunities for innovation are discovered, created and implemented. Given all these facts, it is legitimate to conclude that CE is a viable philosophy for small- and medium-sized airline business to orient their internal capabilities towards the external market and competitive environment in order to sustain.

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ICT ADOPTION MODEL – APPLICABILITY TO CRISIS PERIOD

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Abstract

The model recently validated by Ulmanis [1], suggests that decisions by managers/businesses to adopt or intensify the use of ICT are made as the result of a balance of factors. These factors are divided into two large components: objective and managerial. When these factors are considered they lead managers to make positive (or negative) decisions to adopt or intensify the use of ICT. During the international financial crisis (2008- 2012) both sets of factors would seem to predict that at best firms would stay static in their use and adoption of new ICT tools. To test this we surveyed 97 MBA students. Of the 97, 35 work for companies with more than 250 employees. Given that average firm size in LV is 10 employees [2], this suggests that the results are particularly applicable to the biggest firms in Latvia. The survey was in the form of a five point Likert scale. There were 4 categorical questions and a total of 41 items contained across the 4 questions. The 4 questions and contained 41 items were combined in a construct called *ICT Practice Change*. The items were coded for no change, some change, or significant change and compared in firms reporting high ICT use, medium use or low use. Using SPSS, an Item Response Theory model [3] was created by which to test the responses. Overall, there were no significant changes in use of ICT reported by Latvian firms. Intergroup (comparing high with medium or low for example) did show that high use groups reported significantly more changes than did low intensity use groups, but still the intensity of use did not change from 2008-2011. Generally, it can be stated that ICT use has changed very little in the time period 2008-2011. For all the variables the conclusion is that their importance was somewhat increased. This suggests that the prediction based on the model is accurate. This lends further support to the validity of the model.

Introduction

Information and Communication Technologies (ICTs) have largely transformed the way business approaches most aspects of their operations. The productivity gains created through use of these ever evolving tools are significant [4], [5]. These gains have enabled considerable changes in process creation, standardization and development. Among the improvements enabled by the expanded use of ICTs are reductions in labour costs, increased proximity to customers and standardized products and brands [6]. Previous work aimed at understanding how



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ICT is adopted, diffuses and intensifies and, finally, how it benefits firms and economies has largely relied on studies done in developed countries [7],[8]. Research in firms in emerging economies, where the opportunities based on economies of scale are less apparent, have shown less evidence of productivity gains [9], [11], [12], [13].

Some research has suggested that adopters (managers or others) do not always behave in an objective manner. The author has recently developed and validated a model (Figure 1) [1] showing that decisions to adopt and use ICT are made in a consistent fashion by firms in Latvia. The model shows that these decisions are made in a similar fashion independent of firm size or industry. The model suggests a decision making process combining both objective component factors and managerial component factors. The interaction of these factors leads to decisions that reflect managers' reactions to both the managerial and external environments.

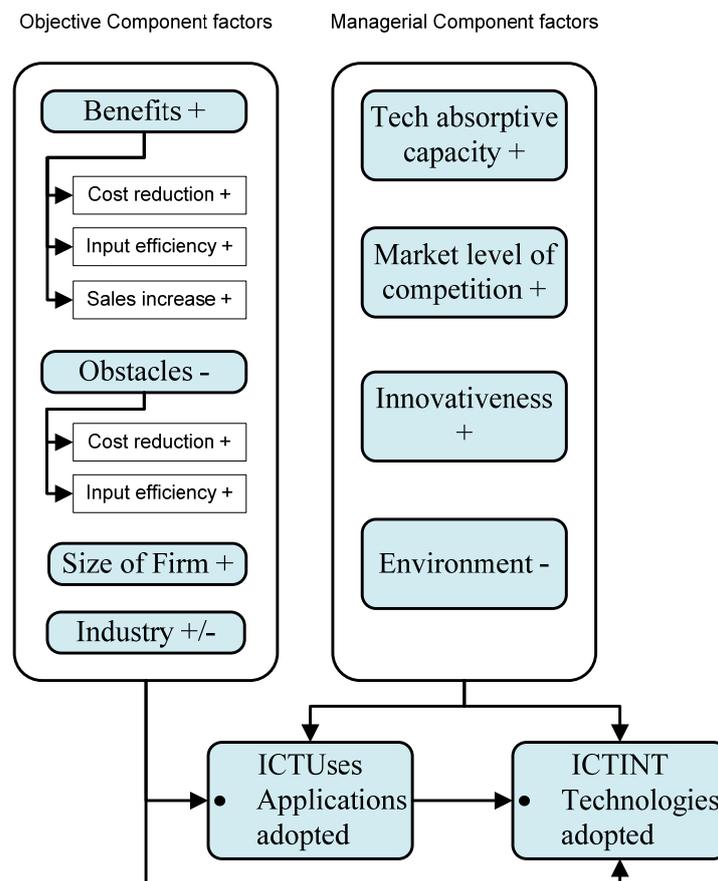


Figure 1. Adoption Model

The overall objective of strategies to increase the likelihood of use of ICT has been to contribute to the diffusion and adoption of ICTs but little is understood of how specific



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circumstances of companies in developing countries need to be considered in order to take advantage of the benefits offered by ICTs [14]. This phenomenon is present in Latvia perhaps not in an absolute way, as clearly an infrastructure and use of ICTs are present to a considerable degree as the study shows. Nevertheless, the digital divide does exist in more subtle ways that are revealed by how much these ICTs are used and for what purposes. At the same time, the controversy regarding the effect of ICTs on productivity and economic growth signaled that there was a significant gap between strategies and policy statements and empirical practice [15], [16]. In the context of the global financial crisis, this suggests a need to understand whether current strategies are either working or failing at encouraging companies in a struggling economy to use ICT and use it more deeply.

In the course of doing the extensive work done to create the adoption model, a question arose regarding whether the global financial crisis that began in 2008 had impacted the diffusion and use of ICT in firms in Latvia. The authors' hypothesis was that the crisis had not significantly impacted the diffusion of ICT in Latvian businesses. This paper presents the results of a survey done to determine whether the crisis has impacted the diffusion and use of ICT on/in businesses in Latvia. Further, the model would suggest that the factors leading to positive adoption decisions most likely would not be attended to and so few or fewer positive adoption decisions would be made.

Materials and Methods

In order to ascertain whether ICT use in Latvian businesses had undergone real or significant change since 2008, a survey of managers was done. The managers were all MBA students taking summer classes during the summer of 2011 at RTU Riga Business School. The survey was distributed to 120 students and 97 completed surveys were returned. The surveys were coded into an Excel spreadsheet and subjected to statistical analysis using the SPSS package as discussed below.

The survey consisted of a total of 8 questions with sub-questions to understand the specific category of ICT being asked about. The first 5 questions asked about the firm's attitude toward ICT and its use and the other three were descriptive. They were:

1. The importance of ICT use (how it has changed);
2. How ICT efficiency benefit goals have changed;
3. How obstacle to investments in software and hardware have changed (at firm level);
4. How ICT absorption methods have changed.

The attitudinal questions asked about general attitudes about ICT and each was divided into items that asked about specific reasons or specific types of technology: For example the first general question was:

How has the importance of ICT in your business activity changed since the economic crisis beginning in 2008 in the following aspects of the work of the firm where you work?

The question was followed by items that asked about specific business areas:

1. In promoting competitiveness;
2. Overall efficiency;
3. Increasing market share;



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4. Improving business processes;
5. Decreasing costs;
6. Improving collaboration;
7. Improving use of online processes;
8. Online HR process management and planning of online production and inventory management processes;
9. Increasing the number of customers in new markets;
10. Increasing the number of clients in existing markets.

The scale was:

1. Significantly decreased;
2. Decreased;
3. Unchanged;
4. Increased;
5. Increased significantly.

Descriptive information was tabulated and attitudinal questions were grouped. There were 4 categorical questions and a total of 41 items contained across the 4 questions. The 4 questions contained 41 items were combined in a construct called *ICT Practice Change*. The items were coded for no change, some change, or significant change and compared in firms reporting high ICT use, medium use or low use. Using SPSS, an Item Response Theory model [3] was created by which to test the responses.

Each item was first transformed as follows: no change is given a score of zero, increase or decrease a score of 1 and strong increase or decrease a score of 2. This approach recognizes that change, either increasing or decreasing use, matters – rather than having a decrease cancel out an increase and then claiming there is no change.

Results

As can be expected from MBA students, most (60) said that they were middle level managers. Of the rest, 11 each were high level and low level managers, with the other 15 having administrative or technical tasks. The largest proportion worked in financial services (29%), followed by 17.5% in services and 15% in ICT or communications. 36.1% of respondents worked in bigger (250 employees) firms and the rest were nearly equally distributed in smaller companies. This division is not absolutely consistent with the division of LV employment but does reflect a group of managers who could be expected to have knowledge of ICT and its use in firms that might use ICT in a sophisticated way.

The final descriptive question asked about the general intensity/sophistication of use of ICT in the firm the respondent works in. The question characterized the use as Low (use email and internet), Medium (plus use of online purchasing and/or intranet) and High (use of sophisticated CRM tools such as SAP or Oracle). The largest fraction (46.4%) worked in firms using ICT in a sophisticated fashion and only 15% reported low sophistication. As almost might be expected, the largest firms reported the highest use of technology; 69% of those in larger firms reported high intensity, in contrast to only 41% in the next smaller group. Figure 2 shows these results.

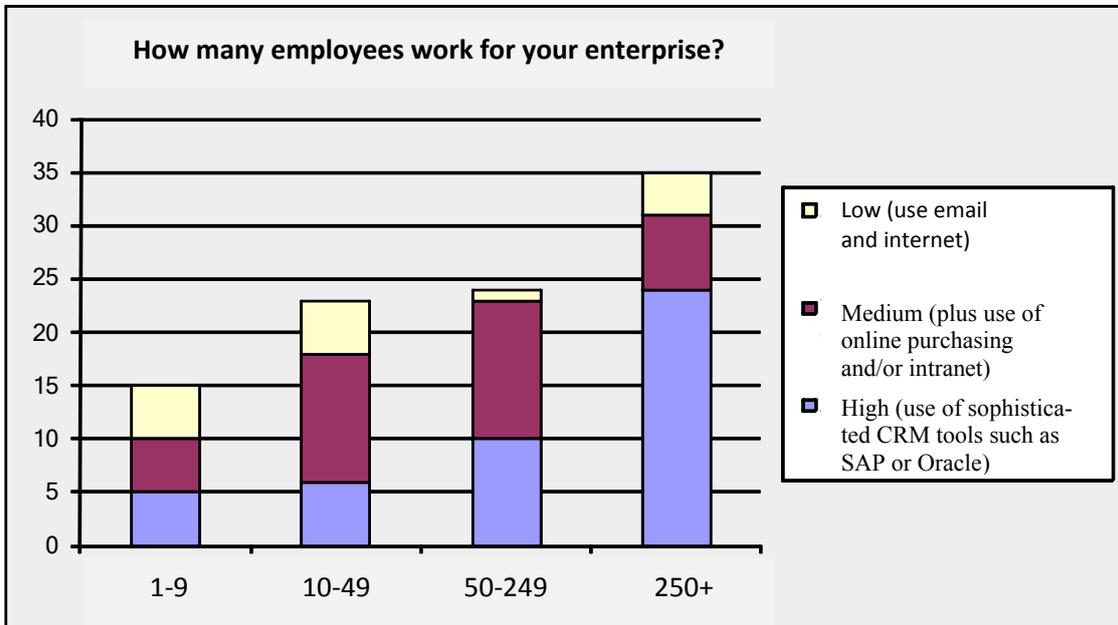


Figure 2. General intensity/sophistication of use of ICT in the firm

Table 1 shows the results of this overall construct of change in IT practices. The regression coefficients show the difference in the means for medium and high against the low category (hence the zero mean for low). Overall, the mean for the medium group is 0.606 higher than the mean for the low group. Conversely, the mean for the high group is 0.751 higher than the low group. Only the latter is statistically significant – i.e., they report more change – but given the relatively small difference between the two coefficients, the medium group is fairly close to the significance threshold.

Table 1

Q1 – 11 Categories

Q8 Group	Regression Coefficient	Sample Mean	Equivalence	
			Mild Increase or Decrease	Strong Increase or Decrease
Low	0.000 (0.000)	-0.004 (1.983)	0.3	0.2
Medium	0.982 (0.405) ≡	1.008 (1.062)	0.6	0.3
High	1.322 (0.396) ≡	1.316 (1.602)	0.7	0.3
Total		0.988 (1.540)	0.6	0.3

The table also shows the means across the three groups as well as the overall mean. These means have very little direct connection to the original responses. An explanation is contained in the “Equivalence” columns. For example, the number 0.3 under “Mild Increase or Decrease” for the low group could be interpreted as companies reporting one third of a mild change on



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each item, or a mild change on one third of the items. This does not appear to be a real change. The number of 0.2 under the “Strong Increase of Decrease” would represent strong change in one fifth of the items, with all other items reporting no change. Put another way, if one were to find the number 1.0 in the “Mild Increase or Decrease” column, this would obviously mean that companies reported, on average, a mild change in all items. A 1.0 in the “Strong Increase or Decrease” column would mean reporting a strong change in all items on average.

The next tables go through each individual question, Q1 to Q4, each as their own constructs. The first two – Q1 & Q2 – are the only ones showing significant differences in reporting by IT groups; the other two – Q3 & Q4 – show no significant difference in reporting. The Tables are 2 and 3 and 4 below.

Table 2

Q2 – 15 Categories

Q8 Group	Regression Coefficient	Sample Mean	Equivalence	
			Mild Increase or Decrease	Strong Increase or Decrease
Low	0.000 (0.000)	0.030 (1.549)	0.4	0.2
Medium	0.492 (0.432)	0.498 (1.348)	0.5	0.3
High	0.894 (0.426) ^{***}	0.902 (1.630)	0.6	0.3
Total		0.607 (1.525)	0.6	0.3

Table 3

Q3 – 10 Categories

Q8 Group	Regression Coefficient	Sample Mean	Equivalence	
			Mild Increase or Decrease	Strong Increase or Decrease
Low	0.000 (0.000)	0.017 (1.312)	0.4	0.2
Medium	0.310 (0.378)	0.288 (1.476)	0.5	0.2
High	0.303 (0.372)	0.318 (1.315)	0.5	0.3
Total		0.261 (1.370)	0.5	0.2

Table 4

Q4 – 5 Categories

Q8 Group	Regression Coefficient	Sample Mean	Equivalence	
			Mild Increase or Decrease	Strong Increase or Decrease
Low	0.000 (0.000)	0.079 (1.605)	0.6	0.3
Medium	0.204 (0.374)	0.224 (1.608)	0.7	0.3
High	0.162 (0.367)	0.205 (1.328)	0.6	0.3
Total		0.192 (1.473)	0.6	0.3



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Though the medium and high use groups do tend to report more change than the low group, none of the intensity use groups show any significant changes.

Discussion

All of the questions reflect that, even in firms with the highest intensity of use of ICT, that there has been little or no increase in use of the technology. The results of this survey of managers in Latvia demonstrate that businesses from a range of industries and sizes have not increased their use and intensity of use of ICT during the crisis time. While the financial crisis that began in 2008 has led to significant contraction in business and businesses, it seems that it has not led firms in Latvia to do one thing that has been shown to be connected with success—invest in the adoption and intense use of ICT. These results suggest that managers and owners could see that there is a clear strategic opening to increase their use of ICT and preempt competitors while the economy is still in crisis or stagnation.

From a policy perspective, the results suggest that policy aimed at increasing the adoption and diffusion of ICT in Latvian firms has not been successful. These results serve as a benchmark for Latvian policy makers (whether in government or in other public sector areas) in measuring whether policy has any objective benefits. As the lack of change is true in all industries and firm sizes observed, the results suggest that policy makers need to either find or create policies that are effective across a range of industries and firm sizes.

These results also reinforce the importance of the adoption model that was previously validated. The analysis suggests that a more comprehensive link to growth and innovation is necessary to make ICTs adoption and usage metrics matter. While conceptually it is easy to cast a general message of technology as some sort of panacea based on random examples, in practice, the very simple indexes used internationally to compare relative development, showed to lack any power to compare the qualitative impact of the use of ICTs

The value of ICTs for Latvia should reside mainly in developing new business processes that increase the productivity and scale of its internal market and enable it to participate in international value chains with more advanced ICT users in the region, as indeed has been the tendency in response to the financial crisis. If firms in Latvia continue to ignore the opportunities afforded by the adoption and intense use of ICT, they will likely lose the opportunity to become more generally competitive.

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INNOVATION AND PRODUCTIVITY

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Keywords: innovation, competitiveness, productivity, small and medium sized firms

Abstract

Much attention in innovation support programs of the Republic of Latvia is paid not only to enhance public, in particular – young people, awareness on innovation roles to the economy, but also to encourage people to start a business. Most of the innovation support programs have focused on private sector investment, which helps to ensure the recommendation of the European Commission for Latvia in respect of the need to increase public and especially private sector investments in R&D and innovation activities.

The chances of small firms to survive and to be successful are becoming ever more dependent on innovation. Not only product innovation is important to maintain a sufficient market share, but also process innovation to produce below price level, and social innovation to maintain a flexible and durable organisation. The role of innovation in small and medium sized firms relates to the firm's success.

There is a number of hypotheses developed from the scientists of Tilburg university of the Nietherlands for comparison. Hypotheses are empirically checked with data from a survey among 200 entrepreneurs in six countries show the relationship between success, innovation and creativity, some possible backgrounds of creativity and innovation are presented. The role of innovation in small and medium sized firms, in relation to the firm's success is described in this hypotheses.

The next step is the analyzing of the model of technological competitiveness developed by scientists of University of Urbino, Italy. A strategy of technological competitiveness is a key mechanism supporting productivity growth, the key determinants are assumed to include the importance of new product development, market-oriented quality improvements and consumption growth. Model proposes to investigate the effects on productivity of innovation and demand, distinguishing between the mechanisms that are specific to different technological strategies of different companies.

Are described mechanisms acceptable in Latvian economic situation? I would like to answer to this question in my future research work.

Introduction

The title of the paper is "Innovation and Productivity". One of the popular definitions of productivity is: Productivity is the effective use of innovation and resources to increase the



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value-added content of products and services. It is the true source of competitive advantage that creates long term economic viability and a better standard of living for all.

The innovation is defined in Business Dictionary as the process by which an idea or invention is translated into a good or service for which people will pay, or something that results from this process.

The Ministry of Economics of the Republic of Latvia is working on a number of innovation support measures, co-financed by the EU Structural Funds. Activities has been continued to support not only development, but also introduction into production new products and technologies.

At the beginning of the paper I would like to describe a number of hypotheses developed from the scientists of Tilburg university of the Netherlands. [7] Hypotheses show the relationship between success, innovation and creativity, role of innovation in small and medium sized firms.

The model of technological competitiveness developed by scientists of University of Urbino, Italy is described the next. There is a lack of sufficient data to test how the model works in Latvian economical situation. [1]

World Bank experts of Europe and Central Asia Region Alfred Watkins and Natalia Agapitova analyze several policy dilemmas to show problems which interfere the emergence of innovations and economic growth, competitiveness, and rising standards of living in Latvia. This dilemmas are described in this paper. [9]

Hypothesis of Innovation, Creativity and Success

Felix J. Heunks from Tilburg University, Faculty of Social and Behavioural Sciences in his article „ Innovation, Creativity and Success” provides the number of hypotheses of the role of innovation in small and medium sized firms, in relation to the firm’s success. [7] Because the majority of Latvian companies are small and medium sized firms, this knowledge would be useful. The success of a small firm, measured by its growth, increasing productivity and profits, depends on its innovation. Innovation depends on a combination of flexibility and control. Younger firms are less innovative than older ones. Creativity and innovation tend to share some personal backgrounds, like a high level of education, extraversion, acceptance of challenges, a need for independence, self-confidence, risk-taking and flexibility. Innovation depends on the availability of external capital, information, cooperation and qualified personnel, profits from their flexibility and creativity, and in larger firms more rom the availability of resources like external capital and qualified personnel. Innovation in small firms emphasizes new products and processes, whereas innovation in larger firms emphasizes more R & D.

The Main Ojective-Productivity

Measuring innovation is a complex operation because of its multi-dimensional nature. [1] Not commonly agreed measures exist representing exhaustively all the manifestation of innovation. The indicators used in the study of the University of Urbino, Italy, are for the purpose of distinguishing input and output innovation measures, internal and external to the firms.



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The Schumpeterian insight on the variety of innovation is the starting point of this investigation on the productivity effects of different forms of technological change and demand dynamics in specific national systems of innovation. The relevance of two basic mechanisms linking innovation and productivity is tested in the analyzed article. Three different models are proposed, which investigate the effects on productivity of innovation and demand, distinguishing between the mechanisms that are specific to different technological strategies, groups of industries and groups of countries.

The hourly labor productivity is very important indicator to increase the productivity.

Innovation and demand as determinants of hourly labor productivity growth is analyzed first of all [1]:

$$\pi_{ij} = aIE_{ij} + bPF_{ij} + cC_{ij} + dI_{ij} + e_{ij} \quad (1)$$

π – Compound annual rate of change of hourly labor productivity (Value added per hours worked);

IE – Total innovation expenditures per employee;

P – Share of firms aiming at production flexibility, as a proxy of firms that reorganize their production processes in order to achieve lower costs and greater efficiency;

C – Compound annual rate of change of household consumption;

I – Compound annual rate of change of gross fixed investments;

e – Error term;

i and j – identify industries and countries.

The results of the model (1), which includes both mechanisms supporting hourly productivity growth and the two demand variables, are presented in [1] Table 1 by author of research Felix J. Heunks. Column 1 has the findings for 32 manufacturing and service industries of six countries. These variables haven't the same influence on productivity growth across all industries.

Next is **the model for technological competitiveness**. [1]

The **model of technological competitiveness** rooted in product innovations, raises productivity mainly through an expansion of output associated to higher quality products, new markets and demand growth. A strategy of technological competitiveness is a key mechanism supporting productivity growth

$$\pi_{ij} = aPA_{ij} + bPQ_{ij} + cC_{ij} + e_{ij} \quad (2)$$

π – Compound annual rate of change of hourly labor productivity (Value added per hours worked);

PA – Share of firms with patent applications, as a proxy of the ability to develop new products through internal research efforts;

PQ – Share of firms aiming at improving product quality, as a proxy of firms' strategies based on product oriented incremental innovations;

C – Compound annual rate of change of household consumption;

e – Error term;

i and j – identify industries and countries.



Table 1

The determinants of hourly productivity growth in European manufacturing and service industries

	All industries	Industries where is prevalent	
		Product innovation	Process innovation
	1	2	3
Total innovation expenditures per employee	0.15** (2.21)	0.24** (2.52)	0.73*** (10.60)
Share of firms aiming at production flexibility	15.97*** (6.52)	-0.94 (-0.23)	9.54*** (7.28)
Rate of change of household consumption	0.13** (2.06)	0.51*** (5.60)	0.34*** (5.07)
Rate of change of gross fixed investments	0.09 (1.64)	-0.06 (-1.06)	-0.02 (-1.99)
Country dummies	Yes	Yes	Yes
Sectoral dummies	Yes	Yes	Yes
F-statistics	22.42***	22.56***	2602.64***
Number of observations	130	68	62

Dependent variable: Compound annual rate of change of Productivity, 1996-2001.

Method: Weigthed Least Squares.

* Significant at the 90% level; ** significant at 95%; *** significant at 99%.

t-statistics in parentheses.

Countries: DE, FR, IT, NL, PT, UK.

Column 2 of Table 1, product oriented industries are characterized by the relevance of the ability to generate innovations (shown by innovation expenditure) and by an even greater influence of consumption growth, but the search for flexibility becomes insignificant; country and industry dummies are included, and investment growth is not significant. [1] In column 3, industries dominated by process innovation maintain the significance of all three variables. Such findings point out the need for a more specific exploration of the mechanisms supporting productivity growth, with the use of the models (2) and (3) for separate groups of industries and countries.

The two specific models are introduced for testing the differences between groups of industries and groups of countries where either new products or new processes are dominant (Table 2). First, the case of product oriented industries is investigated using model (2) in the first regression (column 1). The results show that productivity growth is positively and significantly associated with the relevance of product-related innovations, proxied by the share of firms with patent applications, of a market strategy based on improving product quality, and of household consumption. Country dummies are considered here, while the manufacturing/service dummy appears not significant. The specific variables describing product-oriented innovation efforts and demand growth in consumption provide a more effective explanation of the dynamics of productivity in industries characterized by a model of technological competitiveness.



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In explaining the growth of hourly labor productivity, Felix J. Heunks expects that the two technology variables capture the positive impact of specific innovative efforts, while a positive association with consumption growth can identify the expected “demand pull” effects that stimulate innovation and productivity growth.

Table 2

The determinants of hourly productivity growth in product and process innovation oriented industries and in “Northern” and “Southern” European countries

	Industries where is prevalent		“Northern EU”	“Southern EU”
	Product innovations	Process innovations		
Share of patent applicants	14.74*** (2.58)		37.31*** (2.75)	
Share of firms aiming at improving product quality	7.70*** (9.74)		8.85** (2.22)	
Expenditures for the acquisition of new machinery per employee		2.39*** (12.17)		5.51*** (9.390)
Share of firms aiming at production flexibility		4.83*** (2.56)		9.76*** (9.63)
Rate of change of household consumption	0.24*** (5.93)	0.93*** (25.51)	0.25*** (2.57)	0.20*** (4.42)
Country dummies	Yes	Yes	Yes	Yes
Dummy manufacturing/service sectors	-2.72 (-1.02)	3.68** (2.16)	-6.41 (-1.00)	2.79 (0.62)
F-Statistics	199.36***	524.03***	14.04***	126.61***
Number of observations	70	70	73	70

Dependent variable: Compound annual rate of change of Productivity, 1996-2001.

Method: Weighted Least Squares.

* Significant at the 90% level; ** significant at 95%; *** significant at 99%.

t-statistics in parentheses.

Countries: “Northern EU”: DE, NL, UK; “Southern EU”: FR, IT, PT.

There is a lack of sufficient data to understand how this models work in Latvian economical situation:

PA – share of firms with patent applications, as a proxy of the ability to develop new products through internal research efforts – the next key determinant compared with indicators of other countries of EU (Figure 1).

PQ – share of firms aiming at improving product quality, as a proxy of firms’ strategies based on product oriented incremental innovations-one of the key determinants in the model for technological competitiveness. There are no data according the share of Latvian firms aiming at improving product quality. [11] Investment and development agency of Latvia informs that the



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Latvian government continues to work on developing a favourable climate for foreign investment by improving the business environment. Legal and administrative requirements are being eased so facilitating cooperation between international and local, non-government partners. The incentives for both foreign and local investors are particularly aimed at encouraging investment in the modernization of manufacturing and the development of innovative technologies. One of the main objectives for the government support programmes developed for 2007-2013 is to attract foreign investment to manufacturing and export as well as to technology sectors. The total amount of State and EU Structural Fund-financing granted for government support programmes up to 2013 is LVL 242.83 million.

Table 3

Compound annual rate of change of hourly labor productivity [10]

	Per person employed (EU-27=100)						Per hour worked (EU-27=100)					
	2000	2002	2004	2006	2008	2010	2000	2002	2004	2006	2008	2010
EU-27	100	100	100	100	100	100	100	100	100	100	100	100
Euro area	112	111	109	109	109	109	117	115	113	114	114	114
Belgium	138	137	133	129	126	128	152	146	144	138	134	:
Bulgaria	31	34	35	37	40	42	33	35	35	37	40	42
Czech Republic	62	63	68	70	73	72	52	55	59	59	62	62
Denmark	111	109	109	107	104	109	122	118	118	115	113	118
Germany	107	106	108	109	107	105	124	124	126	128	126	124
Estonia	47	51	58	63	65	70	41	44	49	52	55	62
Ireland	130	135	137	137	129	137	113	119	112	121	117	125
Greece	94	100	101	99	100	96	76	80	82	77	79	75
Spain	104	105	103	103	105	110	103	103	102	104	106	:
France	126	126	121	121	120	120	135	138	130	132	128	:
Italy	127	118	113	111	112	108	116	109	104	102	104	101
Cyprus	86	85	83	84	89	89	76	74	74	76	80	81
Latvia	40	43	46	49	52	55	31	34	37	39	43	47
Lithuania	43	48	54	57	62	63	40	45	50	51	54	55
Luxembourg	177	164	171	180	179	178	:	172	181	193	191	:
Hungary	58	65	68	68	72	71	49	55	57	57	60	60
Malta	97	93	91	90	91	93	85	82	80	81	81	:
Netherlands	115	114	113	115	115	115	137	136	135	137	139	138
Austria	121	118	118	117	115	113	120	115	116	115	115	115
Poland	56	59	62	61	62	67	46	48	50	49	50	54
Portugal	72	71	70	73	73	77	62	61	60	63	64	65
Romania	24	30	35	40	49	48	22	27	32	36	44	42
Slovenia	76	78	82	84	84	81	76	76	79	84	84	80
Slovakia	58	63	66	72	80	83	55	61	64	69	75	78
Finland	116	112	114	111	113	114	113	109	111	108	111	111
Sweden	115	109	116	113	114	113	120	115	121	118	117	116
United Kingdom	111	113	114	113	109	108	111	112	115	113	110	:
Iceland	104	105	108	99	100	93	:	:	:	:	:	:
Norway	140	132	143	158	157	149	164	157	170	186	184	175
Switzerland	111	107	105	105	110	111	113	111	106	107	113	:
Croatia	62	67	71	74	79	79	:	:	:	:	:	:
FYR of Macedonia	49	47	53	57	59	58	:	:	:	:	:	:
Turkey	54	49	54	62	65	62	:	:	:	:	:	:
Japan	99	99	100	98	96	96	:	:	:	:	:	:
United States	143	141	144	141	138	144	132	131	135	133	131	:



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π – compound annual rate of change of hourly labor productivity (Value added per hours worked – one of the key determinants. The information describing situation in our country found in Further Eurostat information, Main tables and Database Eurostat (Table 3).

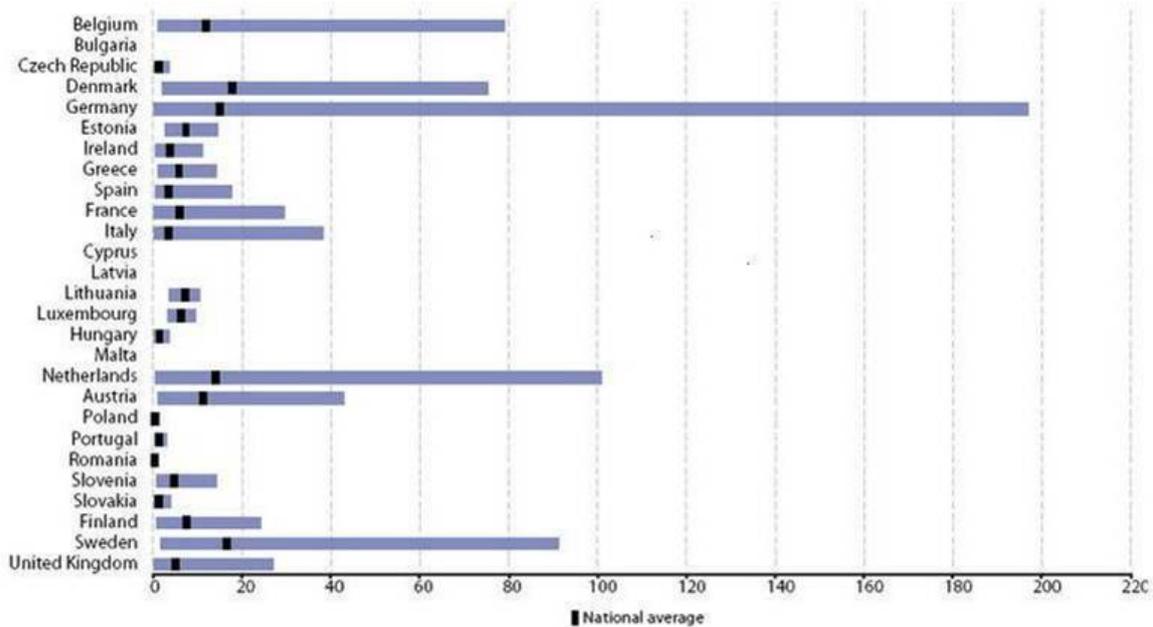


Figure 1. Share of firms with patent applications in biotechnology sector [10]

The next variable in model is:

C – compound annual rate of change of household consumption-information from Further Eurostat information, Main tables and Database Eurostat (Table 4).

The next is **the model for cost competitiveness**. [7]

The model of **active price competitiveness** relies on process innovations and increases efficiency mainly through greater capital intensity, more flexible production systems, and a reduction of labor inputs

In parallel, the third model focuses on the key factors sustaining productivity growth when a cost competitiveness strategy is prevalent and innovation is aimed at developing new production processes; the major dimensions include the acquisition of new machinery incorporating new technologies, and the relevance of firms' reorganization strategies aimed at greater production flexibility. The same demand variable, consumption growth, is again included in order to test the (expected positive) demand pull effects.

$$\pi_{ij} = aMA_{ij} + bPF_{ij} + C_{ij} + e_{ij} \quad (3)$$

π – Compound annual rate of change of hourly labor productivity (Value added per hours worked);



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- MA** – Expenditures for the acquisition of new machinery per employee, as a proxy for embodied technological change;
PF – Share of firms aiming at production flexibility, as a proxy of firms that reorganize their production processes in order to achieve lower costs and greater efficiency;
C – Average annual rate of change of household consumption
E – Error term;
i and **j** – identify industries and countries.

Table 4

Consumption expenditure of households [10]

	As a proportion of GDP (%)			Per capita (PPS)		
	2000	2005	2010	2000	2005 (1)	2010 (2)
Belgium (3)	51.8	49.7	50.7	12 400	13 400	13 900
Bulgaria	71.3	69.5	:	3 900	5 700	:
Czech Republic (3)	54.6	50.8	51.9	7 100	8 700	10 000
Denmark	47.0	47.6	48.1	11 800	13 200	13 700
Germany (3)	56.2	56.5	56.4	12 600	14 700	15 300
Estonia (3)	60.0	58.4	52.9	5 100	8 100	7 900
Ireland	47.1	43.7	46.5	11 900	14 200	13 900
Greece (3)	75.7	75.5	75.4	12 100	15 500	16 600
Spain (3)	63.1	60.1	58.3	11 700	13 800	14 200
France	55.1	55.6	56.4	12 100	13 800	14 200
Italy (3)	61.1	59.7	60.4	13 600	14 100	14 800
Cyprus (3)	83.4	75.8	74.6	14 100	15 500	17 300
Latvia (3)	60.7	60.3	60.3	4 200	6 600	7 300
Lithuania (3)	65.6	65.3	67.9	4 900	7 800	8 700
Luxembourg (3)	46.6	41.6	37.2	21 700	23 800	23 800
Hungary (3)	56.4	55.3	53.4	5 900	7 800	8 200
Malta	76.5	75.1	69.5	12 200	13 300	13 200
Netherlands	49.2	47.7	44.8	12 600	14 000	13 800
Austria (3)	55.8	56.0	55.4	14 000	15 600	16 200
Poland (3)	63.8	62.7	60.6	5 900	7 200	8 600
Portugal	64.6	65.5	:	10 000	11 700	:
Romania (3)	67.5	68.5	61.1	3 300	5 400	6 600
Slovenia	59.2	57.1	58.5	9 000	11 200	12 100
Slovakia (3)	56.1	56.4	59.6	5 400	7 600	10 300
Finland	47.7	49.4	51.6	10 600	12 700	13 900
Sweden	47.0	46.5	48.3	11 400	12 700	13 500
United Kingdom	62.4	61.6	62.0	14 200	16 900	16 400
Iceland	55.6	53.9	48.8	13 900	15 800	13 500
Norway	40.9	39.5	40.3	12 800	15 600	16 600
Switzerland (3)	58.8	58.3	56.8	16 200	17 300	19 200
FYR of Macedonia (3)	76.9	78.7	78.5	3 900	5 200	6 600
Turkey	74.9	75.6	75.0	6 000	7 200	8 000

(1) 2005, break in series.

(2) Slovenia, break in series.

(3) 2009 instead of 2010 data.

Source: Eurostat (online data code: nam_fcs_c)



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All variables are expected to enter the models with a positive sign. Country and sectoral dummies will be included in order to account for the importance of national macroeconomic contexts and for the relevance of sectoral specificities. The econometric methodology need to apply in this study.

Conditions That are Troublesome to the Main Objective – Productivity in Latvia

Europe and Central Asia Region experts of World Bank Alfred Watkins and Natalia Agapitova in their report “Creating a 21st Century National Innovation System for a 21st Century Latvian Economy” recognize that Latvia is struggling with two related challenges. [9] Experts help us to pay attention to conditions that are troublesome to the main objective-productivity in Latvia. The first is reforming the NIS (National Innovation System) so that it becomes a tool for converting the country’s considerable scientific capacity and human capital into an asset for economic growth, competitiveness, and rising standards of living. The second is enhancing competitiveness and productivity in non-high tech sectors. In confronting these twin challenges, Latvian policy makers need to address several strong and policy dilemmas that reforming the NIS (National Innovation System) so that it becomes a tool for converting the country’s considerable scientific capacity and human capital into an asset for economic growth, competitiveness, and rising standards of living:

Dilemma No. 1: Basic Research vs. Innovation and Technology Upgrading [9]

Basic research and innovation are not synonymous concepts, especially in countries like Latvia where most enterprises operate far below the technological frontier. Very few Latvian enterprises innovate and most of these firms innovate by importing capital equipment rather than by either conducting basic research themselves or purchasing research services from Latvian or foreign research institutes, innovation and basic research in Latvia are separate, distinct, and discrete activities.

Dilemma No. 2: High Tech Sectors Vs. High Value Added [9]

Contrary to popular opinion, high tech is not always synonymous with high value added, high wages and rapid growth. On the contrary, economies such as Latvia may get more development “bang for the buck” by helping such “low tech” sectors as forestry and food processing increase value added than by trying to develop a few high tech niche products and industries. Experts of World Bank noticed that policy makers, however, tend to view high tech as the surest route to competitiveness and prosperity, mistakenly devote considerable resources to building up a small high tech sector while ignoring the competitive enhancing opportunities available from the much larger non-high tech part of the economy.

Dilemma No. 3: Production and Sale of Knowledge Produced Inside Latvia vs. the Import, Absorption, and Diffusion of Knowledge Produced Outside Latvia [9]

Policy makers should not focus solely on the commercialization of knowledge produced inside Latvia at the expense of helping firms import innovative technology produced outside Latvia and adapting it for local use. This issue is especially critical for Latvia. Total annual



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R&D spending in Latvia from all public, private and foreign sources is about equal to one week's R&D spending by one large US corporation. And the total number of R&D personnel in Latvia is equivalent to the total R&D personnel in one mid-sized US laboratory. Thus, even if Latvia boosts R&D spending (as a share of GDP) to the EU average, vastly improves the targeting and efficiency of its R&D spending, and commercializes a large share of those technological innovations generated in Latvian laboratories, Latvia will still be a minor player in the global R&D arena.

Dilemma No. 4: SMEs vs. Large Enterprises [9]

Policy recommendations to improve the functioning of the R&D and innovation systems typically focus on the promotion of high tech SMEs. This is prompted by a desire to replicate the success of Silicon Valley. But it is also based on a misunderstanding of the Silicon Valley phenomenon. True, Silicon Valley is a hotbed of small, high tech startups. But these SMEs did not arise in a vacuum or in isolation from large dynamic enterprises. On the contrary, SMEs which operate without a dense network of linkages to dynamic larger (foreign or domestic) enterprises will most likely not become a source of well paying jobs, economic competitiveness and rapid growth. Instead, they are likely to become little more than low productivity, subsistence operations. Links to dynamic large enterprises may be a critical pre-requisite for the emergence of dynamic SMEs.

Dilemma No. 5: Innovation Vs. Everything Else [9]

Innovation policy covers many issues that at first glance would appear to have little to do with innovation. For example, one influential analysis of factors that influence the “national environment for innovation” refers to such items as “sophisticated and demanding local customers,” “home customer needs that anticipate those elsewhere,” the “presence of capable local suppliers and related companies,” “vigorous competition among locally based rivals,” and the “presence of clusters instead of isolated industries.” These business environmental factors help to establish a strong demand for innovation. They give local enterprises the incentive to innovate, the knowledge about what innovation could be most profitable, the capacity to assess technology options. In this respect, they are a critical complement to local R&D capacity. Unfortunately, Latvia ranks rather well on indices of scientists and engineers and perform rather poorly on indices of clusters and linkages. Major weakness is relative inability to utilize knowledge and human capital effectively and efficiently.

Dilemma No. 6: Scientists vs. Entrepreneurs [9]

It is generally accepted that entrepreneurs cannot use their entrepreneurial skills to become good scientists. But the converse is also true. Most good scientists cannot use their scientific skills to become good entrepreneurs but this truism is often overlooked when policy makers attempt to promote technology commercialization. Policy makers establish incubators and technoparks to nurture new businesses started and operated by scientists-entrepreneurs. These commercialization institutions frequently fail to live up to their founders' expectations, in part because they tacitly assume that top notch scientists can handle the marketing, sales,



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financial, legal and overall managerial tasks performed by a top notch entrepreneurs. This is rarely the case.

Dilemma No. 7: Numerical R&D Targets Vs. Structural Reforms [9]

The Lisbon Strategy calls on EU members to increase average R&D expenditures to 3% of GDP. Achieving this numerical target would entail a seven-fold increase in Latvia's annual R&D expenditures, which currently amount to 0.48% of GDP. An increase of this magnitude over the next six to seven years is clearly unfeasible and, more importantly, without significant reforms in the structure of R&D spending, would be tantamount to throwing good money after bad. Countries with higher per capita GDP do indeed spend more on R&D (relative to GDP) and there is no doubt that increased R&D spending contributes to higher per capita GDP. But it would be wrong to assume that there is a straightforward, mechanistic relationship between increased R&D spending and higher per capita GDP. Simply increasing R&D spending will not lead to higher per capita GDP.

Conclusions

The majority of Latvian companies are small and medium sized firms. [7] The success of a small firm, measured by its growth, increasing productivity and profits, depends on its innovation. [1] Results of the econometric tests show that the models proposed for technological and cost competitiveness are indeed able to identify in an effective way the specific sources of productivity growth in industries and countries, offering a more convincing conceptual approach, and providing strong empirical results.

There are difficulties to use this models to analyze the economical situation of Latvia. The reason is a lack of sufficient data of some of the variables:

PA – share of firms with patent applications, as a proxy of the ability to develop new products through internal research efforts – the next key determinant compared with indicators of other countries of EU (Figure 1) Share of firms with patent applications in Latvia presented only according the biotechnology sector. Biotechnology sector is one of high technologies sectors of Latvia. Europe and Central Asia Region experts of World Bank Alfred Watkins and Natalia Agapitova in their report concludes that contrary to popular opinion, high tech is not always synonymous with high value added, high wages and rapid growth in Latvia. Policy makers, however, tend to view high tech as the surest route to competitiveness and prosperity. They mistakenly devote considerable resources to building up a small high tech sector while ignoring the competitive enhancing opportunities available from the much larger non-high tech part of the economy. On the contrary, economics of Latvia may get more development “bang for the buck” by helping such “low tech” sectors as forestry and food processing increase value added than by trying to develop a few high tech niche products and industries. [12] Latvia with 5% of high technology production only on the 82nd place in the world. Major weakness is relative inability to utilize knowledge and human capital effectively and efficiently.

PQ – share of firms aiming at improving product quality, as a proxy of firms' strategies based on product oriented incremental innovations; one of the key determinants in the model for technological competitiveness. There are no significant results of the Latvian situation



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according this variable. Experts of World Bank help us to pay attention to conditions that are troublesome to the main objective-productivity in Latvia: Not only the lack of data for determining the PQ variable of the model but also the numerous of additional problems in Latvian economy identified by experts of World Bank we must to take into consideration in future research work. The problems are: Basic research and innovation are not synonymous concepts, in Latvia where most enterprises operate far below the technological frontier. Very few Latvian enterprises innovate and most of these firms innovate by importing capital equipment rather than by either conducting basic research themselves or purchasing research services from Latvian or foreign research institutes, innovation and basic research in Latvia are separate, distinct, and discrete activities.

Experts recommend to policy makers to promote technology commercialization, to establish linkages between top notch scientists on the one hand and top notch entrepreneurs on the other hand. Investment and development agency of Latvia informs that the Latvian government continues to work on developing a favourable climate for foreign investment by improving the business environment.

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THEORETICAL ASPECTS OF LOCAL ECONOMIC DEVELOPMENT IN RURAL AREAS: A LITERATURE REVIEW

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Abstract

There are 5 planning regions (which will appoint regional development centers), 9 cities with status of national importance, and 119 municipal units altogether in Latvia. Lately the regional planning includes the idea of polycentric development with focus on regional development centers. The regional development strategies have been elaborated and development strategies for local governments are either elaborated as well or in process of elaboration.

Socio-economic indicators show that rural territories differ from urban ones (suburban areas and area around capital Riga) in terms of economic development level. In case of Latvia rural economic conditions are very diverse comparing to urban or suburban territories. Latest internal population migration trends are oriented from rural territories towards urban or suburban ones. There is a trend that capable workforce diminishes in rural areas. The territory of rural municipalities' is cover more than half from State's territory, but in terms of total employment they form only 19%.

Sustainable Development Strategy of Latvia until 2030 suggests the Latvia's main capital is people. The diminishing workforce and lower development level in rural territories brings forward issues concerning the policy goals for the development of rural communities.

Purpose. The aim of this article is to provide conceptual framework for evaluating and diagnosing a potential of local economic development.

Design/methodology/approach. Author presents thematic state-of-the-art literature review both on economic development and economic development from local perspective. Author used peer reviewed scientific articles published by SAGE, EMERALD, and Cambridge Journals Online. The latter scientific discussions on local development challenges are highlighted. By methodological approach focus is kept on methods used by other researchers for evaluating and diagnosing a potential of local economic development.

Findings. Research identifies economic and non-economic factors defining the outcomes of local economic development perspectives and identifies questions for further research and discussion.



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Evolution and Meaning of Economic Development Concept

To set a conceptual framework for local economic development, this paper first examines the chronology of economic development theory and historic derivation of development concepts. First this paper describes main guidelines within theory of development economics and economic development. Various literature sources confirm the importance of “economic” development. M.P. Todaro and S.C. Smith separate development economics as distinct branch from traditional economics and political economy. Authors point that development economics deals with greater scope of issues, such as economic, social, political and institutional mechanisms, both public and private, “necessary to bring about rapid (at least by historical standards) and large-scale improvements in levels of living for the peoples [...]” [1]. Todaro and Smith describe development economics as eclectic, combining relevant concepts and theories from traditional economic analysis along with new models and broader multidisciplinary approaches derived from studying the historical and contemporary development experience. Traditional economics explains growth through efficient allocation of resources and evaluates economic growth by annual increase of GDP or likewise.

The two “markers of meaning of economic development” are Dudley Seers and Amartya Sen. According to Seers (1979) the purpose of development is to reduce poverty, inequality, and unemployment. For Sen (1999), development involves reducing deprivation or broadening choice [2]. As one of core authorities in the field Sen’s approach largely focused on individual’s freedoms as a result of development process. Amartya Sen developed the concept based on “capabilities to function”: “The concept of “functionings” reflects [...] the various things a person may value doing or being. The valued functionings may vary from elementary ones, such as being adequately nourished and being free from avoidable disease, to very complex activities or personal states, such as being able to take part in the life of the community and having self-respect”. Sen defines capabilities as “the freedom that a person has in terms of the choice of functionings, given his personal features and his command over commodities” [3]. Sen’s perspective helps to explain why development economists have placed so much emphasis on health and education, social inclusion and empowerment and have referred to countries with high level of income but poor health and education standards as cases of “growth without development” [1]. Sen has inquired economic welfare as a wider subject of human freedom not just making better living standards of an individual. Sen has made some insights of rational choice theory incorporating ethics of behavior, responsibility, commitment [4].

If taken in account Sen’s perspective, it can be concluded that the importance of “economic development” as a research subject can be reflected on various levels – global, international, national, local and individual.

There are three core values for inner meaning of development – *sustenance*, *self-esteem* and *freedom* that represent common goals by all *individuals and societies* [9]. Todaro and Smith comment on each of these. By sustenance basic human needs are understood – food, shelter, health and protection. Self-Esteem undermines authenticity, identity, dignity, respect, honor, recognition of individuals as well as societies. The third value is a concept of human freedom. Freedom involves expanded range of choices for societies and their members. Should be stressed that by gaining wealth individuals are enabled for freedom of choice i.e. between having material goods or denying material wants for life of spiritual contemplation. On the other



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hand human freedom on societal level includes components of political freedom as personal security, the rule of law, freedom of expression, political participation, and equality of opportunity.

As to three basic values Todaro and Smith define objectives:

- to increase the availability and widen the distribution of basic life-sustaining goods
- to raise the levels of living, including provision of more jobs, better education, promotion of cultural and human values, which can generate greater individual and national self-esteem
- to expand the range of economic and social choices [1].

Gerald M. Meier distinguishes two generations of development economists – first generation after World War II (1950s-1975) and second generation from 1975 till present. According to Meiers *first generation* formulated grand models for development strategy that involved structural transformation and a correlative role for extensive government involvement in development programming or planning. The Harrod-Domar equation was applied to estimate capital requirements in developing countries. Growth accounting emphasized the contribution of capital in Solow's model. Other early models of development strategy also featured capital accumulation: Rostow's "stages of growth", Nurkse's "balanced growth", Rosenstein-Rodan's external economies and "big push", Lewi's unlimited supply of labor and dual sector model, the Prebisch-Myrdal-Singer hypothesis about terms of trade and import substitution, Leibenstein's "critical minimum effort" thesis, and Chenery's "two-gap model". The models and hypotheses *involved strong state action*. The less developed economy was perceived as pervasive market failures and to correct or avoid failures central coordination of resources was advocated. First generation thought is also characterized by external pessimism (capacity to pursue export-led development) and internal optimism (capacity to accelerate development through public sector and various governmental policies). It was believed that structural transformation may be accomplished through macro-strategies. During 1960s and early 1970s, deficiencies in industrial programming and comprehensive planning became acute and governmental planning policies were reviewed. The causes of government failures were suggested: deficiencies in the plans, inadequate information and resources, unanticipated dislocations of domestic economic activity, institutional weakness and failings on the parts of the administrative service (Killick 1876:164; Chakrawarty 1991). [8] Soedjatmoko also stresses the importance of factors stimulating or impeding growth: "Looking back over these years, it is now clear that, in their preoccupation with growth and its stages and with the provision of capital and skills, development theorists have paid insufficient attention to institutional and structural problems and to the power of historical, cultural, and religious forces in the development process" [6].

Returning to Meiers *generations*, the *second generation* of development economists returned to fundamental principles of neoclassical economy. The discussion of agents' economic rationality became so vast, that there had been suggestions that development economics should not be as separate subdiscipline. Notwithstanding Krueger points for necessity to maintain development economics "Once it is recognized that individuals respond to the incentives, and that "market failure" is a result of inappropriate incentives rather than of nonresponsiveness, the separateness of development economics as a field largely disappears. Instead it becomes an applied field, in which the tools and insights of labor economics,



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agricultural economics, international economics, public finance and other fields are addressed to the special questions and policy issues that arise from the context of development”. An overriding issue is whether in the future 'development economics' is to be regarded simply as applied economics or whether the nature and scope of development economics will constitute a need for a special development theory to supplement general economic theory [8].

Todaro and Smith suppose the term “development” attracted attention in 1970s as many developing nations did have reached economic growth targets, but the levels of living of the masses of people remained unchanged [1]. Todaro and Smith also put forward fundamental questions regarding development issues on national and international level. On national level, who actually makes or influences economic decisions and for whose principal benefit these are taken. On international level, which nations and powerful groups hold control over finance, information and technology. Beyond national level development disparities are compared globally. To describe development level quantitative comparisons across countries are used e.g. real income per capita adjusted for purchasing power. Human Development Index equally weights average income, health and educational attainments. Annual Human Development Reports offers comparative analysis of socioeconomic development since 1990 [1].

This paper reports up to date research interest of development concept from economic theorists. Todd Sandler has shortly described the issues economic theory already explores institutions (the new institutional economics); seeks to explain public economics and social actions e.g. using game theory; an explanation for cultural norms is provided by analysis of evolutionary games. Game theory of population dynamics addresses how conventions develop and enable individuals to choose among Nash equilibria [5]. Meier is certain that development theory has to become more *country (place) and time specific* and must go beyond the perfect competition and rational-choice framework of neoclassical analysis as insofar just elucidating of institutional change, culture and social capital [8]. Meier has performed contrasting analysis of different Policy Situations – one situation, which requires incremental policy changes and may be characterized as neoclassical policy situation, and the other – development policy situation. It could be concluded thus that development policy situation may be characterized by low understanding of the policymaking process and the situation with pressing problems, that are country (territorially) and time specific, less technical analysis possible, high politicization, institutional change required and large innovative policy changes are required to implement the sustainable development (including the needs of next generation) [8].

Alike But Not the Same

Most development economists analyze the causes; why there is inequality comparing developing to developed countries. This paper reports common problematic areas Todaro and Smith have identified and, which may to some extent characterize not just macro level, but also rural/urban differences:

- *Lower levels of living and productivity.* Low income leads to low investment in education and health, plant and equipment, infrastructure, which in turn leads to low productivity and economic stagnation (Gunnar Myrdal “circular and cumulative causation”) [12].
- *Lower levels of human capital (nutrition, health, education and skills).*



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- *Higher levels of inequality and absolute poverty.* Concept of **absolute poverty** represents a specific minimum level of income needed to satisfy the basic physical needs of food, clothing, and shelter to ensure continued survival. The minimum subsistence levels vary across countries and regions reflecting different physiological, social and economic requirements [10].
- Demographic patterns – **dependency burden** older people and children referred as nonproductive members [10].
- *Greater social fractionalization* [13];
- *Rapid rural-to-urban migration* (rural areas are poorer and tend to suffer from missing markets, limited information and social stratification) [10].
- *Lower levels of industrialization and manufactured exports.*
- *False belief that industrial development is “more important” than agricultural.* Agricultural development does not need to be as rapid as industrial for two reasons: possibilities of import substitution are greater in industrial products and demand for manufactures grow faster than for food. The right balance between agricultural and industrial development [11].
- *Adverse geography.* High available potential of natural resources and profits from these industries does not lead to development success. Cases called “curse of natural resources” lead to a focus on distribution of wealth, governance and equality issues [10].
- *Financial and other markets* [15].
- *Historical impacts characterized by poor institutions and varying degrees of external dependence* (economic, political, cultural, and environmental).
- *Relative importance of Public and Private Sectors and Civil Society.*

Todaro and Smith state recurrently that economic and social development is impossible without corresponding changes in the *social, political, legal and economic institutions of a nation*. The fundamental problem of a developing nation is provision of infrastructure starting from basic physical infrastructure (roads, ports, telecommunications) to social infrastructure (reliable and evenhanded legal system and other institutions facilitating cooperation, investment and exchange).

Todaro and Smith identify significant differences in initial conditions that require special analysis of the growth prospects and requirements of modern economic development. It can be concluded that from local perspective would be the significance of the same dimensions and similar problematic issues for development, the following initial conditions are little modified to capture present problems from local perspective:

- *Physical and human resource endowments;* here Todaro and Smith mention two components of Paul Romer’s technology gap- physical object gap (factories, roads, modern machinery) and idea gap or as Thomas Homer- Dixon named the ingenuity gap – the ability to apply innovative ideas to solve practical social and technical problems.
- Per capita incomes;
- Geography can influence the pattern and amount of trade [17]. Inequality and institutions may be development factors of stronger influence than physical geography [17].
- *Role of migration;*
- *Benefits from production;*
- *Basic scientific and technological research and development capabilities;*
- *Efficacy of domestic institutions.*



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There are assumptions that living standards may converge due to technology transfer allowing to take over technological innovations without invention time and costs and through more rapid capital accumulation by attracting foreign investment (Joseph Schumpeter [18]). Practical evidence does not confirm such assumptions as for example Reis's research on welfare effects of foreign direct investments [19] for exception of OECD countries. The exception of OECD countries could be explained by elaborated investment policy framework [20].

Todaro and Smith have schematically organized leading theories of Comparative Development, which may explain long-run causes of comparative development. The *historic impact* plays significant role on institutions and “reinforced differing degrees on inequality” [17]. According to Engerman and Sokoloff [22] the degree of inequality can shape evolution of institutions. The extreme inequality is followed by less investment in human capital and public goods and “a tendency of less movement towards democratic institutions (which could also have facilitated movement to other constructive institutions) [24].

Cultural factors matter in influencing the degree of emphasis on education, institutional quality and the effectiveness of civil society [17]. Institutional quality affects the amount and quality of investments in education and health. According to Todaro and Smith causality between **education and institutions** could run in either direction, or both could be caused jointly by still other factors [17]. *Human capital* is at least as fundamental a source of long-run development as institutions. Todaro and Smith point that it is harder to conclude that institutions led to income rather than vice versa [17]. The depth and breadth of education in the population will help determine the effectiveness of government as force for development not just due to better-qualified civil service but also to the understanding of citizens of poor government performance and the knowledge of how to work for a better outcome and capacity to organize. Literature has primarily viewed the productive impact of human capital on market outcomes as direct one. Dani Rodrik “Participatory and decentralized political systems are the most effective ones we have for processing and aggregating *local knowledge*. Democracy may be perceived as “a meta-institution for building other institutions”. Institutions will affect the ability of civil society to organize and act effectively as a force independent of state and market. Activities of *effective civil society; well-functioning markets; public goods quality* will have an influence on productivity and incomes, more generally on human development [17]. Todaro and Smith conclude that history matters as inequality and institutional development shape the participation opportunities of citizens in modern economic growth [17]. Not all regions and countries are equally successful in terms of economic growth or economic development because of various causes. Economic development at the first glance uses the income per capita to define the developing world. Initially economic development focused onto the structure of the economy and employment, later the scope widened and *economies are viewed as social systems* including both economic and noneconomic factors. As *noneconomic factors* Todaro and Smith mention:

Attitudes toward life, work and authority; Public and private bureaucratic, legal and administrative structures; Patterns of kinship and religion; cultural traditions; systems of land tenure; the authority and integrity of government agencies; the degree of popular participation in development decisions and activities; the flexibility or rigidity of economic and social classes. and strategic economic variables as: savings, investment, product and factor prices and foreign exchange rates [1].



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Major Economic Development Research Subjects and Approaches

Some approaches depart to some degree from conventional neoclassical economics as assumptions of perfect information, the relative insignificance of externalities, and the uniqueness and optimality of equilibria [25]. Models of development that stress *complementarities* are related to some of the models used in endogenous growth approach.

- Incorporating problems of *coordination* among **agents** (among groups of firms, workers, or firms and workers together);
- The formal exploration of situations in which increasing returns to scale, a finer division of labor, the availability of new economic ideas or knowledge, learning by doing, information externalities and monopolistic competition or other forms of industrial organization other than perfect competition predominate;
- Researches in new institutional economics (Nobel laureate Douglas C. North) [17; 22].

The *coordination failure* approach evolved relatively independently and offers some significant and distinct insights. The two approaches have converged when low-growth paths resulting from a coordination failure have been examined within endogenous growth framework by Oded Galor and Joseph Zeira [26]. *Coordination failure approach (underdevelopment as coordination failure)* explains worse outcomes (equilibrium) due to agents' behavior (choices) caused by difficulties in coordination caused by different expectations of people or because everyone is better off waiting for someone else to make first move [27]. If and when *complementarities* are present, an action taken by one firm, worker, organization, or government increase the incentives for other agents to make similar actions. Such complementarities often involve investments whose return depends on other investments being made by other agents. In development economics, such network effects are common. The important models reflecting such effect are the **model of the big push** pioneered by Paul Rosenstein-Rodan, who pointed out several problems associated with initiating industrialization in *subsistence* economy [31]. Kevin Murphy, Andrei Scheifer and Robert Vishny demonstrated the formal logic of this approach [32]. Paul Krugman simplified and popularized the approach by his monograph "Development, Geography and Economic Theory" in 1995 [33].

The big push theory brings further question why coordination failures cannot be solved by private sector. There are at least four significant theoretical answers:

- Possibility of capital market failure; how to provide confidence in investment;
- Agency costs (monitoring managers and other agents);
- Communication failures;
- Limits to knowledge, is there skilled workforce and, whom to hire;

The O-ring model reveals coordination problem, which can leave an economy stuck in a bad equilibrium – low average income and growth rate or with class of citizens trapped in extreme poverty. *It may not be possible to get this better equilibrium without the aid of government* [27]. Coordination problems are common in initial industrialization, upgrading skills and technologies and may extend to broad issues in changing behavior to modern "ways of doing things". Daron Acemoglu's formal model "Training and innovation in an imperfect labor market" brings practical insight to this issue combined with market failures problem [28]. Todaro and Smith say often this is a classic "chicken and egg problem": which come first skills or the demand for skills? And point that the solution is simultaneous complementarity



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investments *through coordination*. Especially in case, if there is a lag between making investment and realizing the return on that investment [28, 30]. The important role for government policy is in coordinating joint investments that workers get skills the employers can use and employers get equipment the workers are ready to use. This is the situation when neither party would be eager to be first to make the investment. Development economics is a policy-oriented study therefore the role of government takes central place “[..] a larger government role and some degree of coordinated economic decision making directed toward transforming the economy are usually viewed as essential components of development economics” [1]. Government itself is increasingly analyzed in contemporary development models as one of the components of development process that may contribute to the problem as well as to the solution; government policy is understood as partly determined by (endogenous) the underdevelopment economy. Even when government is imperfect, development specialists look actively for cases in which government can still help by pushing economy toward a self-sustaining, better equilibrium [27].

Multiple Equilibria: A Diagrammatic approach is widely used. The *investment coordination* perspective helps clarify the nature and extent of problems posed when technology spillovers are present such as in Romer model. Multiple-equilibrium situation is also encountered in the Malthus population trap on policy coordination across families regarding fertility rates. The same multiple equilibria refers to technology transfer problem- making better technology available is generally necessary, but *not sufficient* condition for achieving development goals.

It can be concluded that various development approaches suggest welfare improvements by correcting market failures.

Economic Development from Local Perspective

As Bengt Johansson suggests talking about “rural”, “local” and focused without having the contraries “urban”, “global” and “complex” does not make much sense [35]. The OECD had referred to the need for „a new research agenda in rural development” in 2006, implying that the nature, dynamics and heterogeneity of rural development processes, as they unfold in practice, were inadequately expressed in new theoretical frameworks. At the same time, rural development policies have continued to develop at supra-national, national, regional and local levels and, in the social sciences there have been some major shifts (away from earlier and, in retrospect, too limited and inflexible, models) that allow for a better understanding of a rapidly changing world [36]. Curry has researched different economic development policies: the pursuit of productivity, well-being, endogenous development and income support and he concluded that confusion of development goals to a significant degree stems from the nationally-centralised approach to policy formulation. He concluded that on national level there was no horizontal integration of economic development between governmental departments, nor vertical integration on different scales of devolution (regions, subregions, local authorities, parishes). There were different set of objectives at each scale [33]. Economics is applied for studying global, international, national (macro), individual (micro) issues as previously in paper mentioned as well in distinct fields like labor economics, agricultural economics, international economics, public finance and other fields. For research



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of rural economic development the concept of *community economic development* should be included. Shaffer, Deller and Marcouiller used following definition of the community: “community is a logical decision-making unit that may or may not incorporate space”. Authors suggest that community development requires interdisciplinary approach, though rooted in economics, should also take in account sociology, political science [35]. This paper suggests social psychology and may be even legal sciences should be taken in account as well. There are some scientists, who suggest that *geography* should be considered as well. Farole, Rodriguez-Pose and Storper suggest that geographers have managed to avoid debates on more generalized theories of economic growth and development. Authors present overview of the principal theoretical and empirical developments in the institutionalist approaches to economic development and identify that geographical research could be a contribution [36]. Krūzmētra in her dissertation assessed changes in population structures in peri-urban territories, analyzing the composition and mobility of local residents in Latvia with a focus on in the peri-urban zone of Rīga [38]. Myadzelets used methods of mathematical modeling of the socio-economic development of regions [39]. Jae Hong Kim has researched land use planning and regulation to economic development and his research reveals the complex causal links between land use and regional economies [39]. The thematic state-of-the-art literature review presents good insights for evaluating and diagnosing a potential of local economic development. Halebsky, Gruidl, and Green suggested that *community economic development involves understanding the full range of choices available to alter economic circumstances and engaging willing (and even unwilling) collaborators in building long-term strategy* [41]. Shaffer, Deller and Marcouiller proposed following definition for community economic development, which may occur, when people in community analyze the economic conditions of that community, determine its economic needs and unfulfilled opportunities, decide what can and should be done to improve the economic conditions and then move to achieve agreed-upon economic goals and objectives. As previously mentioned the concept of development tends to be broadened as interdisciplinary subject, therefore Shaffer, Deller and Marcouiller offer a new paradigm, which includes elements associated with economics: resources, markets, space, and three additional elements: society/culture, rules/institutions and decision making [42]. This paper previously reported the issues researched by economic development and from this perspective radically new is the decision making. On the basis of public choice approach, the tragedy of commons debate and the “new” institutional economics Elinor Ostrom provides the components of basic *institutional analysis* framework in order to provide a general method for analyzing public economies and diverse forms of collective action [43]. Foley, Hutchinson, Kondej and Mueller have researched local perspective of economic development in Poland and they have largely analyzed *historical aspects* of Poland’s transformation from command to a market economy [44]. Reese and Ye performed empirical research to address the question, if economic development is better explained by local development policy or simple place luck and concluded that “climate and natural features are an advantage, but effective public policy can make up for lack of those features” [45]. There are researches dedicated to endogenous growth and development theories focused on *business incentives and innovations*. Bengt Johannisson sets two human faculties – belief and determination that make economic development happen in unexpected places. He indicates Schumpeter’s work on entrepreneurship as the origin of economic development and



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sociologist's Grantovetter's assumption that all economic activity is socially embedded [35]. Hennesberry, McGough and Mouzakis have created theoretically robust model for analyzing and estimating the effect of planning on the property sector of the local economy. The research proved that as planning regimes become tighter, the local supply of space decreases, thus revealing the negative effect on local economic activity and positive effects of local rents [46]. Zheng and Warner performed empirical research to find the evidence supporting the relying on business incentives in local economic development strategies. The results of their research "challenge the effectiveness of business incentives and raise concerns that in times of economic crises, competitive pressure to use business incentives may trap local governments in a race to bottom" [51]. As relevant research to business incentives for local development is a cluster-based economic analysis for regional development. But in case of researching local development the regional impacts should be evaluated. Waits have researched policy and practice of clusters as a tool for better understanding the economy, getting key industry stakeholders together to address common problems and provide high value specialized services to key industries and concludes that "clusters, rather than individual companies or simple industries, are the source of jobs, income, and export growth; and suggests that effective economic policy must be grounded in the realities of the industries at which it is targeted" [48]. Montana and Nenide use traditional quantitative cluster analysis techniques to capture entrepreneurial and innovative activity within the industry cluster context. They suggest that further research is needed "for interpretation of evolutionary developments of a regions cluster life cycle and evolutionary trends of an industry life cycle" [49]. When providing research on business incentives in rural perspective the role of agriculture should be evaluated. For *rural development* some evidence are found concerning commercialization of agriculture (based on A. Smith's idea of specialization as the source of productivity). Research in local economic development is devoted to issues of *human capital and employment* issues from local economic development perspective [51, 52, 53]. Lots of research explores *the impact of higher education on development*. Drucker and Goldstein propose a review of economic approaches for measuring economic impact and conclude that "often nonuniversity regional factors are more influential than university factors; the majority of empirical analyses do demonstrate that the impacts of university activities on regional economic development are considerable" [51]. Last not least is the economic approach to *social capital* for attaining economic development goals. Evans and Syrett stress the potential importance of social capital for understanding and promoting long-term, inclusive models of economic development [54, 55, 56]. As Murphy suggests "*trust* is a key influence on the constitution and development of economic spaces like production, innovation, and commodity networks; one that embeds and stabilizes relationship, fosters knowledge and technology diffusion, and helps to create order in the global economy". He also points that from perspective of political economy and community development *trust* is a key contributor to civil society. *Trust* contributes to innovation and knowledge creation in clusters, production networks, value chains, and can be as well perceived as transaction-cost reducing input [57]. Thus the conceptual framework for further research should include interdisciplinary approach: and a study of economic and noneconomic factors impeding or contributing to economic development of local (rural) community. Defining rural space is subject to perform for further empirical research.



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METHODOLOGY FOR PRINT ADVERTISEMENT QUALITY ASSESSMENT

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Abstract

For the purpose of detecting faults in print advertisements, the author has developed a methodology for print advertisement assessment. This will help perform analysis of print advertisements in order to detect more precisely the mistakes present in the message and thus allow marketing specialists to improve communication with the target audience and increase the return from advertisement. The author has established five criteria that influence the efficiency of an advertisement and are most important components of practically every print advertisement. These are headline, main text, design, slogan and logo. To assess print advertisements, the author proposes creation of an expert group. Each expert must be highly qualified in his field; therefore, this paper also includes methodology for evaluation and selection of experts. The selected experts assess print advertisements according to the established criteria. After the assessment, the advertisement quality is calculated and areas (criteria) of errors are detected. The author has proved by a particular example the practical importance of the methodology developed in this paper.

The necessity to develop a methodology for print advertisement quality assessment arose from researches performed by the author on mistakes occurring in the advertisements of small and medium-sized enterprises (SMEs) [1; 8]. The author intended to perform these researches in order to help entrepreneurs detect drawbacks in their advertisements so that they may improve the advertisement quality, as well as increase the effectiveness and return thereof.

SMEs often pay unreasonably little attention to the quality of advertisement development regardless of limitations that SMEs face in their activity: shortage of resources, lack of advertising experience, business size, tactical and strategic client-oriented problems [2; 3; 6]. SMEs owners lack the required knowledge and experience for development of effective advertisements; they do not believe in the impact that marketing communication can provide. SMEs put greater emphasis on other marketing activities, thus undervaluing the contribution of advertising in product promotion [4; 5; 7]. To demonstrate the main areas of mistakes in advertising message, the author has developed the abovementioned methodology in order to perform a research – the assessment of advertisement quality.



For the purposes of this research, the author has used the method of expertise. An expert is a qualified specialist who expresses his opinion in the process of research. There are two approaches to organization of an expertise: using a specialist opinion (evaluation) on the research object, namely individual expertise or an opinion (evaluation) expressed by a group of experts, namely collective expertise. Having regard of the research aims and objectives, as well as the character of the research object and given situation, the author has made a decision to use the method of individual expert evaluation.

The assessment can be given in the form of an interview or an inquiry. Considering the aims and objectives of this analysis, as well as all technical conditions, the author decided to offer each expert a questionnaire to be filled individually. The experts had to give their responses during a month after receiving the material.

In practice, an inquiry form distance was performed without the direct presence of the author. In the selection of experts, the author was guided by their competency depending on their field of activity, professional knowledge, and work experience. Moreover, it must be considered that a specialist who is highly qualified in a narrow field may not always be able to evaluate general problems; therefore, among the experts, specialists of different profile were included. In author's opinion, the results of an expertise are more valid if the experts can express imagination and unconventional thinking.

Guided by the abovementioned criteria, the author first nominated 15 experts who were asked to answer questions about the problem to be examined in the expertise. Specialists evaluated their level of competency in each question on a five-grade scale, i.e. using the highest score for the question they are the most competent in. Thereafter, the author compared the individual evaluation of each specialist with the average self-assessment rate of potential experts in all questions.

The level of expert competency was evaluated according to the following formula:

$$K_i = \frac{\sum_{l=1}^v V_{il} \beta_l}{\sum_{l=1}^v V \max_i \beta_l} \quad l = \overline{1, v} \quad (1)$$

where:

- K_i – level of expert competency;
- V_1 – expert's self-assessment score in question 1;
- V_{\max} – maximal score in question 1;
- β_1 – weight factor for question 1.

The quality of expertise results is greatly affected not only by the competency of each expert, but also by the number of experts in the group. Overly high number of experts may often decrease the average competency of the group, while in case of a small expert group preconditions form due to the significant influence on the outcome by each person.

Guided by the level of competency of the potential experts, the author decided to involve five experts in the process of this research. The author has invited five highly qualified experts



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to evaluate the selected advertisements: two experts represented science and three experts were representatives of the leading advertising agencies *Euro RSCG*, *JWT* and *Inorek&Grey*.

Using the Formula 1, the following 5 experts were selected from 15 candidates (Table 1).

Table 1

Experts selected for assessment of advertisement quality

Company, position	Name, surname	Level of competency
1. Director of EURO RSCG	G.Ozoliņš	0.82
2. Director of advertising agency JWT	M.Krumiņa	0.78
3. Director of advertising agency Inorek&Grey	J.Grasis	0.83
4. Head of the Chair of marketing of University of Latvia	V.Praude	0.79
5. Lecturer of the Chair of marketing of University of Latvia	J.Šalkovska	0.75

The aim of the research was to assess and analyze the quality of marketing communications of Latvian SMEs. The experts evaluated advertisements printed in Latvian press during year 2010. The author of the paper has assumed that SMEs make substantial mistakes in their advertisements. In order to check this statement the author of the paper has investigated 824 advertisements created by SMEs. The author of the paper has also invited five highly qualified experts to evaluate the selected advertisements: two experts represented science and three experts were representatives of the leading advertising agencies: *Euro RSCG*, *JWT* and *Inorek&Grey*.

Each advertisement consists of several components performing certain functions. The key components of an advertisement are as follows: a headline, basic text, slogan, logo and visual layout. The author has analysed all the aforementioned components in this paper.

All the components were evaluated by experts according to a five-grade scale (see Figure 1) except the logo, for which the evaluation “present/not present” was made.



Figure 1. The scale of advertisement assessment

Source: the author of the paper



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A headline performs an important function in the advertisement. Several studies have proved that while turning over the pages, a person initially spends only 2-3 seconds for reading an advertisement. During this time the advertiser must attract the reader's attention, as well as motivate to read the content of the advertisement. In other words, the amount of people willing to acquaint themselves with the content of the advertisement greatly depends on the headline. By reading the headline a person quickly determines whether the particular advertisement is interesting for him/her at that moment or not. If there is no headline, a person is not able to make a decision whether it is worth to acquaint him/herself with an advertisement. A headline must be simple and easily understandable. If it is not possible to understand a headline, a great possibility exists that a person will not pay any attention to the advertisement. One should avoid "blind" headlines when they are made with the only purpose to attract people's attention. In such a case a lot of people can acquaint themselves with an advertisement, except the target audience of an advertiser [10; 14; 15].

In the framework of this research, the experts were offered to evaluate the headline from 0 to 5 grades, where 0 meant that, in the expert's opinion, the advertisement did not have a headline at all, 1 – that the headline was totally unsatisfactory (did not express the essence of the content of an advertisement, nor encouraged to read the advertisement further) and 5 meant that the headline of the advertisement was completely satisfactory and encouraged to read the advertisement thoroughly. The analysis of the results showed that the evaluation made by each expert is below the average, namely, below 3 grades. The higher average evaluation is made by expert No. 3 (JWT) and it is 2.71 grades. The lowest evaluation is made by expert No. 1 which is 2.51 (University of Latvia). A mode or the most frequently used evaluation is 2. Regardless of the critical importance of the headline, in 10.7% of the cases on average there was no headline in SMEs advertisements at all. Figure 1 demonstrates how each expert individually evaluated the headlines.

A basic text – it is a logical continuation of the headline. Its basic task is to turn the readers' attracted attention into the interest about the advertised product, as well as motivate to perform an action. In order to do that it is necessary not only to specify the needs of the potential customer, but also the way how to satisfy them. The text should contain the arguments which would convince to purchase the product. Every word in the basic text is important and therefore banalities should be avoided, the language should be precise, and, as far as possible, facts should be mentioned. To rouse the reader's interest and motivate him/her to an action the basic text should include answers to six questions (5 W's and one H):

- what – what is advertised,
- who – who is the advertiser,
- when – the period within which it is possible to purchase the product,
- where – the place where it is possible to purchase the product,
- how – product purchase conditions,
- why – benefits received by the customer upon buying the product [5; 14; 16].

In the framework of our research, experts evaluated the basic text of an advertisement according to the 5 grade scale from 1 to 5, where "1" meant that the basic text is totally unsatisfactory (does not motivate, convince, nor rouses interest) and "5" meant that the basic text is very satisfactory. "0" in experts' evaluations indicates that there was no basic text in the advertisement. The evaluation results showed that each expert evaluated the basic text below 3



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grades. That means that the quality of the basic text, as well as quality of the headline is below the average. The lowest evaluation is made by expert No. 1 (University of Latvia) and it is 2.71 grades of the five possible grades. The highest evaluation of the basic text is made by expert No. 5 (Inorek&Grey) and it is 2.93 grades. A mode or the most frequently used evaluation is 3. In 5.4% of the cases on average there was no basic text in the advertisement.

A slogan – it is a laconic, easily recognizable phrase providing the essence of the advertisement. A slogan formulates the essence of the offer briefly and concisely and it plays an important role in the advertisement. A slogan should demonstrate a benefit of the customer. Slogans are often used to show a position of the company. In general, slogans may be divided in three groups:

- related. Include a name of the product. The name and slogan of the product are not separable.
- attracted. Related to the name of the product both by rhythm, and phonetics. Namely, a slogan may be used without the name of the product but in such a case, a slogan will not be so understandable.
- independent. These slogans are created without the name of the product. The drawback of these slogans is the fact that it is often complicated to connect or associate them with the product [12; 14].

In the framework of this research, the experts evaluated slogans according to a 5-grade Likert scale, where “1” meant that a slogan was totally unsatisfactory (did not express the essence of the offer, did not specify the benefit of the customer, nor showed the position) and “5” – very satisfactory. “0” meant that there was no slogan in the advertisement. The analysis of slogan evaluations shows that all experts evaluated them a little above the average, namely, above 3 grades. The lowest evaluation is made by expert No. 5 (Inorek&Grey) and it is 3.07 grades. The highest evaluation is made by expert No. 3 (JWT) and it is 3.74 grades. However, Figure 6 shows the proportion of the advertisements without a slogan pursuant to the experts’ evaluations. On average, 87.4% of SMEs neither take the advantages of a slogan nor try to show the position of the company or benefit of the customer briefly and concisely. Undoubtedly, it is a great mistake.

An advertisement is not imaginable without a visual layout which includes an illustration, logo of the company, graphic headline and other parts of the text, as well as some other additional components (frames, bullets, etc.).

The key function of the visual layout is to attract the attention of readers. Moreover, there are also other functions, such as:

- **indicatory.** The existing visual objects tell about the content of the advertisement, specify the subject of the advertisement, its users, as well as various details related to the subject and users.
- **organizational.** Serves to provide a harmonic advertising composition, as well as manage the reader’s attention in the sequence required by the advertiser.
- **interpreting.** Helps to explain complicated information. Graphs and charts are mainly used for this purpose.
- **transforming.** Often specified figuratively.
- **decorative.** In this case decorative components are established to make an advertisement more attractive for the reader’s perception.



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Visual components in the advertisement may perform several tasks among which there are also the following tasks:

- to attract attention of the potential customers,
- to maintain attention during perception of an advertisement,
- to interpret properties of the product declared in the text,
- to provide atmosphere of faithfulness,
- to arouse a wish to purchase the product [11; 12; 13].

In the framework of this research, the experts also evaluated the visual layout according to the Likert scale from 1 to 5, where 1 meant that the visual layout is totally unsatisfactory (low quality illustration, does not attract attention) and “5” – that the visual layout is very satisfactory. Only the average evaluation made by expert No. 2 (Euro RSCG) was a little above the average, namely, 3.02. The rest experts evaluated the visual layout below the average. The lowest average evaluation is made by expert No. 1 (University of Latvia).

A logo is the original image of a full or abbreviated name of the organization or product. A logo is one of the most important components of the corporate image of the enterprise. It serves in order to identify the enterprise in the market, as well as distinguish products of different enterprises. A correctly made logo must be:

- easily remaining in one's memory,
- original,
- associative,
- expressive,
- functional,
- laconic [9; 13].

In consumers' opinion, the existence of a logo serves as a quality guarantee of the product. The products without a logo are called as “noname”. Three types of logos are most often mentioned in the literature:

- an original graphic image of the name,
- a symbol of the enterprise. Type image,
- a block of the enterprise. Combination of the name and image.

A logo should perform the following 6 main functions:

- actual,
- expressive,
- referential,
- impressive,
- poetic,
- metalinguistic.

The experts of our research had to determine if there is a logo in the advertisement or not. It was disclosed that on average, in 21.7% of the cases SMEs do not place a logo in their advertisements.



The total evaluation of each marketing communication element by all experts is calculated according to the following formula:

$$\bar{x}_i = \frac{\sum_{j=1}^n \sum_{l=1}^v x_{il} \beta_l}{mn} \quad i = \overline{1, k} \quad (2)$$

where:

- \bar{x}_i – the average evaluation of a communication element;
- β_l – score (1–5) characterising the evaluation of a marketing communication element;
- l – the expert;
- m – the number of marketing communication elements.

The experts were asked to record their evaluation in the following tables.

Table 2

Table for assessment of advertisement heading

Advertisement No.	Evaluation					
	1	2	3	4	5	Not present
1						
2						
....						

Table 3

Table for assessment of advertisement basic text

Advertisement No.	Evaluation					
	1	2	3	4	5	Not present
1						
2						
....						

Table 4

Table for assessment of advertisement logo

Advertisement No.	Evaluation	
	Present	Not present
1		
2		
....		



Table 5

Table for assessment of advertisement slogan

Advertisement No.	Evaluation					Not present
	1	2	3	4	5	
1						
2						
....						

Table 6

Table for assessment of advertisement visual layout

Advertisement No.	Evaluation				
	1	2	3	4	5
1					
2					
....					

Using the methodology developed for advertisement quality assessment, the author has performed the analysis of 824 print advertisements. From the analysis of the results, the following **conclusions and suggestions** can be drawn. Experts evaluated the four key components of an advertisement – a headline, basic text, slogan and visual layout according to the five-degree scale. The evaluation “has/does not have” was made for the fifth component – a logo of an advertisement. The commission of experts consisted of 5 people among whom there were the leading specialists of the international advertising agencies *Euro RSCG*, *Inorek&Grey* and *JWT*, as well as two scientists of the University of Latvia. The implemented research allows to conclude that, in general, the quality of advertisements of SMEs is unsatisfactory.

Upon summarizing evaluations of each advertisement component it was established that, in general, all components are provided in low quality, namely, each component performs its functions in the advertisement rather satisfactorily. The main research results are as follows: the maximum average evaluation of the headline is 2.71 grades (expert No. 3, *JWT*), the maximum average evaluation of the basic text is 2.93 (expert No. 5, *Inorek&Grey*), the maximum average evaluation of the slogan is 3.74 (expert No. 3, *JWT*) and the maximum average evaluation of the visual layout – 3.02 grades (expert No. 2, *Euro RSCG*). On average, 87.4% of SMEs do not use a slogan in their advertisements.

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APPROACH FOR SELECTING ERP SOFTWARE AT MID-SIZE COMPANIES REFLECTING CRITICAL SUCCESS FACTORS

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Keywords: Critical Success Factors (CSF), Enterprise Resource Planning (ERP), Small and Mid-Size Entities (SME), Information Technology (IT), Decision Making, Acquisition

Abstract

Purpose. In the 1990s, enterprise resource planning (ERP) systems became the state of the art tool to replace self-made legacy systems. With the trigger “Year 2000” and “Euro currency” a lot of the systems reached the final stage of further maintenance and had to be replaced. While the market of ERP implementations at big global companies reached almost saturation, the small and medium size companies (SME) are at the beginning. The decision for an IT-ERP package and its implementation is an extensive, lengthy and costly process which often runs into problems or cost overruns [1]. The acquisition process is one of the key challenges at the beginning of a longer journey. This paper aims to present a discussion of the key influencing characteristics that affect the decision making process for ERP software at a SME.

Design /methodology /approach. The research is based on a literature review comparing the various decision processes and the validation of key characteristics. There is not the one set of characteristics available to use for ERP acquisition, so a literature comparison was executed. This set has been tested in a case study project, setting priorities and the correlations within the structured execution process.

Findings. The identified set of characteristics has been challenged in a case study executing a structured acquisition process. The hypothesis, that the triggers in relation to the prioritisation of the characteristics are strongly dependent on a structured selection process was confirmed during the study. The success of the decision will be measurable after implementation of the system. Currently, according to business material and literature the selection process is mainly vendor driven not based on acquisition requirements and values.

Originality/value. In summary a clear execution method and a structured set of critical success factors are the main scientific results of this study.

Introduction and Relevance

The selection, implementation and maintenance of standard ERP software like the high-end enterprise packages of e.g. SAP, Oracle and Microsoft is more and more a commodity part of the business for big enterprises. The IT employees of their departments are well trained with years and years of experience. The consultancies supporting them, are preparing in very professional solution



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centers e.g. industry solutions for the different branches. The methods are proven, many case studies are available and most of the time, there is a variety of solutions for any given problem.

The area around the smaller and mid-size businesses is significantly different. A lot of small, mainly local IT companies are implementing a large number of different ERP solutions according to a similar number of different methods.

The business requirements for medium size companies are changing rapidly. Hence their need for a professional IT and ERP system support is higher than ever. A study (2005) of 550 companies showed that over 57-70% of large companies are currently using ERP systems but only 27% of SME companies [2]. There is a significantly rising demand for ERP systems at mid-size companies. There was an additional feedback in the same study, claiming that 50% of the companies are planning to select a new or modify the existing ERP system within the next 12-18 months. This study obtains more and more relevance in the current turbulent economic markets. Jutras stated at the end of 2009 that over 30% of the mid-size companies are operating without proper tools / ERP systems [3].

To remain in that new market environment they need to expand aggressively but profitably while growing organically. The global and open market is a threat and an opportunity but most companies are forced to look abroad. While growing rapidly they mostly remain with old organization structures but their challenge is to deal nimble and responsive even with multi-location facilities [4]. “Overall the ERP market will grow to 45.2 billion US\$ in 2011 from 30.6 billion US\$ in 2006 according to an October IDC report” [5].

Following this, current challenges to be considered are:

- **Globalization**
Markets are wide open and the competition is tough. Even mid-size companies produce and deal around the globe. They open up subsidiaries' outside Europe and face the same business challenges as large enterprises. Mid-size companies need to launch new high quality products in the market fast and economically. Therefore, they are forced to leverage globally.
- **Market consolidation**
Companies keep constantly merging. Enormous flexibility and high competitive ability are a must. High performing companies reduce prices, keep the quality and invest in their IT systems.
- **New legal requirements and global standards**
All companies dealing and producing in foreign countries, especially outside Europe have to fulfill all legal and tax requirements according to the global standards. Large entities employ legal departments, SME need to rely either on a transparent ERP system or consultants.
- **Competition of resources**
The severe global competition limits all kinds of resources – people, money and material. The market is not just dominated by giant entities any more, inaugurating a new field for SMEs.
- **Faster innovation**
The product life cycle is much faster in a global market, so all participants in that market need to be very innovative and flexible. Especially mid-size companies need to define a clear USP. [6]



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Definitions

The key terms are defined very high level for the purpose of this paper.

Definition of ERP Systems

The term stands for “Enterprise Resource Planning” a confusing term to express a very simple concept, managing all areas of your business efficiently. “ERP Software is a strategic tool that unifies and manages the core process of a business to improve client and supplier interactions as well as equipping the business with well-defined and controlled processes.” [7].

Definition of small and medium-size businesses (entities) – SME

The definition of SME (small and medium size entities) or mid-size companies is not consistent throughout the literature. Usually there are two factors used for the definition, one is the number of employees, the other the turnover. The Institute for the research of mid-size companies in Bonn, Germany, [8] defined:

- Small businesses have up to 9 employees and a turnover under 500 kEuro;
- Mid-size companies employ up to 499 employees and a turnover under 50 Million Euro;
- All other are big companies.

The conclusion reviewing many different approaches and papers is that the definition needs to be specified based on the criteria and subject to analyze. For the matter of the ERP implementation and organization subject the number of employees is much more relevant than the turnover. As a basis for this paper, these small companies under 50 employees and the mid-size companies with 50-250 employees are target companies [9]. For the purpose of this study companies between 10-100 employees provide the ideal structure. Big entities with more than 250 employees are out of scope for this research.

Specifics of the Selection of an ERP System at Small- and Mid-Size Companies

Managers of SME companies know that profitable growth in a global environment is dependent on very efficient business processes and a strong, supporting ERP/IT environment. An actual study shows that 68% of the managers are absolutely aware that their success and growth are dependent on a powerful IT and even more than 72% believe that flexibility during growth is dependent on the IT landscape [6].

The buying and implementation process of IT/ERP is a fundamental cost factor. In a lot of industries of SME companies it is over 5 % of the yearly turnover [10].

The selection process of standard software is one of the strategic instruments at mid-size companies [11]. The decision for one specific package defines not just the IT framework with hard- and software, the selected system is the backbone for all business processes. Especially mid-size companies will not invest in any system architecture in parallel to the ERP system. An average ERP system remains for 10-15 years.

Thus, the selection of an ERP system is not the responsibility just of the IT department; it is the responsibility of any manager in a lead position of the company [12].



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“The current focus on organizational buying behaviour continues to be the same, largely ignoring the advent of IT.”[13] Especially for mid-size companies the buying process and a successful implementation and later service management can not be decoupled.

The selection process to purchase an ERP system is very important especially for a SME company, because firstly, the selection process of ERP systems is not part of their key business, even more, it is a decision taken most of the time once in many years. Given the investment which is usually very high, the decision is fostered by the C-Level and signed off there [9]. Secondly, the selection has a long term impact on the organisation and especially for SME's the risk associated with the selection and implementation, is much higher than for big enterprises. SME's lack critical human and technical capabilities and spend a significant amount of money in comparison to their turnover (over 5%). The business case is stretched to all limits. Hence, to fail the ERP implementation results often in bankruptcy of the company [14]. Thirdly, they are using the input of friends, customers and suppliers in a rather unprofessional way to get their decision basis for the system

To sum it up, there is usually very little experience with this key strategic decision making process but the selection for an ERP system is very critical, cost intensive and risky for a SME.

Research Methodology

The research method for this study is based on a literature review to ensure a wider picture of the selection process. The selection process as a structure, the selection characteristics and the influence of the decision making people were reviewed. The discussion is based on an intensive literature review. Many scientific papers and case studies have been reviewed.

Expert Interview have been executed to gain input into the long term satisfaction – topic of a separate paper – but experts confirmed very much the process and approach taken for the case study. A case study was performed to test the critical success factors as well as the process developed. The scope is limited to Germany and production companies, where all interviews and case studies have been performed.

Literature Review

A review of the literature shows that the subject of ERP implementation is getting more and more popular in the recent years. Especially in the USA at the International University of Texas, Laredo, in the department of Management Information Systems & Decision Science Professor Jacques Verville and Consultant Alannah Halington are covering topics about ERP implementation in much detail. Multiple cases have been analysed [15], [16] and many different approaches reviewed [13], [17], [18], [19].

The type of problems that arise from the implementation of ERP systems range from Business Process Reengineering, Outsourcing, Internet Technology as well as through all stages of an implementation from selection, prototyping, implementation and service support. The management topic is mainly covered reviewing the different organization structures, decision making processes, political, behavioural, procedural specifics [5], [6], [20], [21], [22], [23], [24].



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Other interesting topics for research in the ERP area include the soft or intangible factors like user buy-in, ERP adoption, leadership, organizational culture, business process modelling, ERP development or functional process issues, communication, training, etc. [13], [18], [25], [26], [27], [28].

In addition to the science papers a lot of the software providers like SAP, Oracle, Microsoft, Sage, etc. create white papers about their products presenting business processes and the advantages and structure executed with their systems.

For the very specific combination of the successful acquisition of ERP systems for small – medium size companies some papers are available [2], [3], [4], [7], [9], [10], [12], [29], [30], [31]. But it is generally a new topic and the papers are mainly very recent.

Small and mid size companies getting more and more attention in the past and problems around this business are covered in many magazines for instance CIO Insight, Harvard Business manager, ZfKE, MBT magazine, Economist Intelligence Unit etc. concentrating on their specific problems. Moreover, institutes like the IFA in Bonn, the BfM in Bayreuth and e.g. the University of Sankt Gallen are doing research on all operational fields of SME's. Some universities e.g. the University of Sankt Gallen have even established their own faculty just around family – or mid-size businesses. Although relevant papers are available in this research field, the field of the decision and acquisition of ERP Systems in SME companies is rarely covered so far.

The very critical part of the decision making process can be divided into three key areas which will be enfolded in this study: the selection process itself as a process (structure), the characteristics to be evaluated and the people making the decision. The part of the people making the decision was covered in a recent conference paper [32] and they are considered out of scope for the purpose of this research. The assumption is that the right group of people is involved in the process. For the purpose of the case study it will be explained and specified in more detailed but not analysed.

Critical part in IT/ ERP acquisition: The structure of the acquisition process

The selection process itself usually follows a similar structure. The main difference between the execution of the process and its intensity depends mostly on the size of the company.

Big global multinationals follow a clear structured RFP/RFQ (Request for proposal /quotation) acquisition process to narrow the ERP vendors from a long list to a short list. A very detailed definition of the characteristics and evaluation follows. People have clearly defined roles and responsibilities in this process [16].

Small and medium-size companies might not have a purchasing department nor an IT department so they do not have the capacity to execute a long structured process. Companies follow a financial or non-financial approach and try to evaluate tangible and intangible benefits. They try to evaluate all possible business processes and compare them with software functionality, and even small companies follow a selection process to limit the number of ERP packages down to the one they want to buy and perfectly fits their business [16], [33]. Reviewing the different literatures the focus should be on the selection characteristics, its prioritisation and people involved; the structure of the process itself should be taken as commodity.

Deep [34] developed a V-Model process, Percin [11] follows the Analytic Network Process (ANP) a multi decision- making methodology, Schmitz [9] used a structured phased approach as well as Verville [18].



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The literature demonstrates that there are a lot of similarities for the execution of the decision process itself. For the purpose of this paper the process is taken as a multi stage process with reference to all mentioned authors. The 4, 5 and 6 stage processes usually cover the same activities just describing a different level of detail.

As one example the six stage process of Verville [18] is used very often for other researchers as a reference, like Schmitz [9] and will be taken as a basis for the purpose of this paper.

Critical part in IT/ ERP acquisition: The research on characteristics

According to many researchers, more important as the process itself are the characteristics chosen to evaluate the ERP system. The best fit of these characteristics, it's evaluation and impact on selection is the key to a measurable, successful implementation.

Verville and Halington [16] and Baki [35] determined three distinct types of criteria for evaluation: vendor, functionality and technical. Vendor evaluation criteria included size, financial stability and reputation of vendor etc. Functional criteria dealt with the features of the software and included functionalities specific to front-end interfaces, user friendliness and so on. Technical criteria dealt with the specifics of the system architecture, integration, performance, and security etc.. Percin [11] differentiates mainly criteria by system factors and vendor factors using the very specific ANP approach as the decision making process. Shiau [31] is focussing on six specific criteria to analyse the decision behaviour and influence of CEOs. Six constructs are: investment cost and benefit analysis, choice of appropriate technology, choice of vendor or brand and suitable innovation for the firm. Shehab [36] listed various papers to provide an overview of the characteristics used for SME and large companies.

Palanisamy [19] investigated in a very detailed empirical study to generally prioritise the characteristics. The scope was companies of different sizes in North America. Literature had been reviewed and typical selection criteria compared. The outcome was tested with a survey. Mainly five factors have been identified as most relevant and tested in the survey.

The factors are: ES strategy and performance; BPR and adaptability, management commitment and user buy-in; single vendor integrated solution; and consultants, team-location, and vendor's financing. This is one set of valid characteristics which can be used for further investigation.

There are multiple studies with a literature comparison of the influencing characteristics for the ERP selection. Each list has a slightly different research background as well as completely different hypothesis as a basis.

Table I summarises the result of an intensive literature review about the selection criteria. All different studies have been taken into consideration and clustered. There is a very high overlap in the criteria but dependent on the level of detail and focus every set had its individual touch based on the case study or industry focus. This list is not the one valid set of characteristics but it is a very good starting point to be evaluated in combination with the process in further case studies.



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Table 1

ERP package selection criteria (created by author, 2012)

Comparison of the key characteristics for software selection								
Group	Criteria's / Measures	Literature						
		Baki et al. 2005	Palani-samy et al. 2010	Percin 2008	Perera et. al. 2008	Shiau et al. 2009	Tel-tumbde 2000	Ver-ville et al. 2002	Verville et al. 2003
Fit with Strategy / Organisation								
	Business Strategy and Vision (long term flexibility)	X		X	X	X	X	
	Risk, Legal, Cultural influences & Security (user-access concept)	X	X		X		X	X
	Organisational influences (user buy in, fit with organisation structure)	X	X					X
	Interpersonal influences		X					X
	Acquisition team members, decision making and leadership style		X					X
Functionality / Business Process Fit								
	Implementation ability (in time)		X	X	X		X	X
	Functional Fit and full integration of all functions	X		X	X		X	X
	Flexibility (R&D), ease of customisation and reliability	X	X	X			X	X
	User friendliness, Training, Online Help			X	X		X	X
Technology								
	Technical Criteria: system architecture, integration, performance, compatibility with other systems	X			X		X	X
	Open source for reports, interfaces and enhancements							
	Choice of appropriate technology very actual databases and methodology	X	X			X		X
	Clear technical concept for releases, upgrades and any technical maintenance							
Vendor								
	Vendor's position, size, implementation, awards, ... / Market position	X		X	X	X	X	X
	External references of vendor from other organisations, industry skills	X	X				X	X
	Financial capability, stability and reliability (long term)		X	X			X	X
Economical								
	Cost and Benefits	X	X	X	X	X	X	X
	Service and Support	X	X	X	X			X
	Consultancy, after sales management, domain knowledge of suppliers	X		X	X			



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Reflecting and Discussing New Hypothesis

The software acquisition of an IT/ ERP package covers a wide range of internal and external factors and actors that engage in the strategic decision-making process. Looking at the first part of this very complex strategic process, the selection; the process structured and the evaluation criteria chosen are the key factors which will be considered for this paper.

The quality of the execution of the decision making process is highly important and include a lot of variables creating hypothesis. Two key hypotheses have been defined as an underlying approach for this research paper to ensure a measurable successful acquisition.

H1: Clear trigger factors help to evaluate and prioritize the critical success factors (CSF) for the decision making point in time

H2: There is a constant interrelation and prioritisation of the critical success factors (CSF) during the selection process.

Both hypotheses have been reflected using recent scientific literature and empirical studies. For Hypothesis 1 the triggers are usually underestimated or ignored in literature, so even more the correlation needs to be reviewed. For Hypothesis 2, Verville [18] used 10 factors in combination with the process but as a conclusion of their research and as a starting point of new researches.

The **research methodology** chosen for this study was the literature review and more importantly a case study. Using the literature review of critical success factors as a starting point, some factors and groupings had to be adapted during the case study.

Research Method – Case Study: Heat Pump Company (Heat & Co)

Company Profile:

The company, founded in 2006 is a very young, innovative R&D company holding many patents in the heating and cooling area. They have been financed for some years but the core product is ready for mass production. The contracts with the first customers are finalized – B-B business – and the production line is prepared. Currently the focus is at one site in Bavaria but might grow with the customers to other sites or countries. They employ about 30 people but will grow up to 50 next year. There is an urgent need for growth because they could sell much more units than they are able to produce.

Background – Triggers leading to the decision to acquire an ERP

During the research and development phase the company was just using Microsoft Office and DATEV to run the business. Given the volumes this was enough and comfortable. Starting with the production there are much more requirements which cannot be handled without a system.

Main requirements are: integration of all processes and master data, Quality Management, handling of serial numbers, sufficient quality management, BDE terminals and purchasing with frame contracts.

Main Trigger:

- Production cannot start without system support according to complexity and volume;
- Support and Service need to track back every single component and article;
- Finance needs integrated and real time production cost reports;



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- Quality management needs to check and track all purchased material;
- Growing up to 50 people, HR and Finance cannot be handled any more;
- Growing with the partner the next step into foreign markets will happen shortly. Legal requirements outside Germany need to be fulfilled;
- Sustainable software supporting flexibility and future growth.

All these processes with the expected production volume are impossible to be handled manually.

Analysis and set up of the decision making process

As it is a financed company the process for selection needed to be very professional and profound. The board of directors asked for a proposal for the decision at the beginning of the year, just in time to start implementation. The team running the selection process was the IT-lead, the production lead and the quality lead. Given the big challenge to implement new software on the green field and defining and setting up the processes they looked for external help. An independent, personally known IT consultant was asked to support the selection process, which was planned for three months.

The team had to review all requirements and define the success factors based on the list of most common ones. The first list contained six groups; organisational, functional, vendor, cost, change management and technological requirements with about 40 facts. These factors have been weight and reviewed and reflected with the requirements (triggers) in the first round.

For this all relevant vendors have been reviewed and evaluated. The result being 6 different vendors which have been invited for detailed presentation workshops.

After the workshops, the priorities could be adapted and specified in more detail and the requirements have been differentiated. During the second round of workshops three major lists have been reviewed; overall criteria (containing organisational, technological, vendor and change management requirements), costs and functional criteria. After these detailed workshops the criteria have been challenged against the requirements and triggers.

Strategy / Organisation: Flexibility, languages, foreign legal requirements, interface standards, authorisation concept, full integration of all processes real time.

Technology: Release strategy available, add on handling, platform / database Microsoft standard, external hosting possible but optional.

Vendor: International Vendor, regional offices, at eye height in terms of size and client focus.

Change Management: End User friendly, easy handling, training concept, online help.

Functionality: Serial number handling, entire system all functions integrated, Service management, BDE integration, focus on purchasing, production, quality and packaging in the first step.

Cost - Economical: The one time and on-going costs have been compared. The analysis needed to be very detailed but without reflecting the benefits. This effort has been executed via the weight factors



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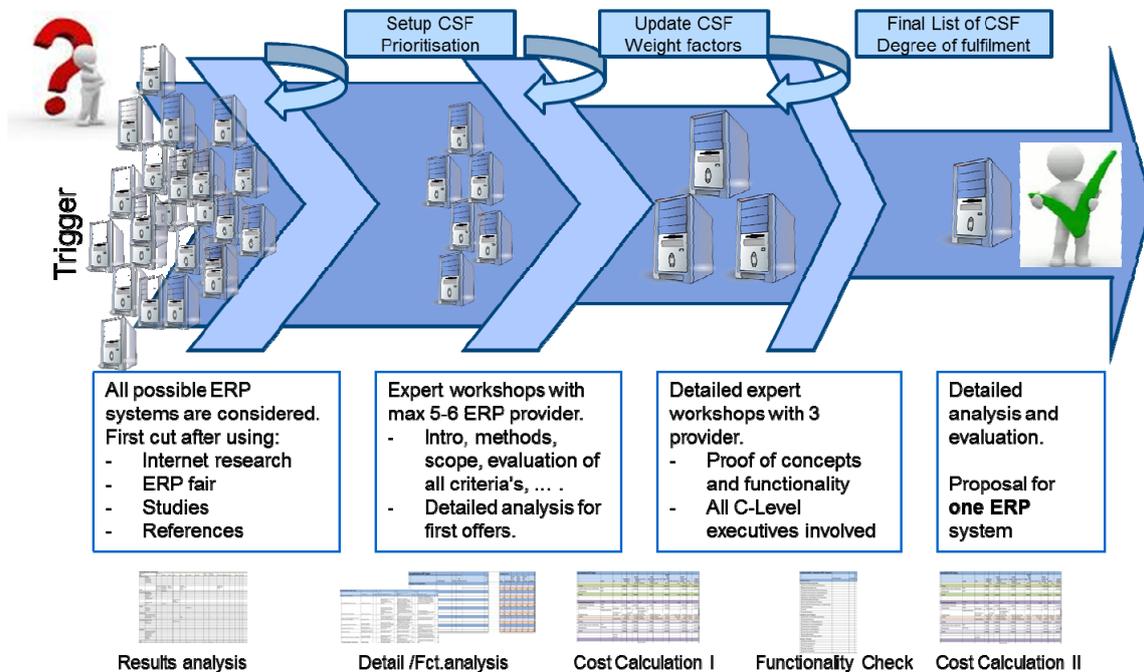


Figure 1. Selection Process and Documents (created by author 2012)

With the results the vendors had been categorised. For the three best placed vendors a specific workshop has been set up to test the functionality in detail. All C-Level managers have been involved for this review.

The results for the overall criteria and functionality have been very contradictory to the cost criteria, so priorities and weight factors played an important role for the final proposal. The system and provider fulfilled most of the overall and functional requirements. It was not the cheapest but the value for money being in a good balance. Very importantly due to the details for all areas, it is not just a positive evaluation, the criteria the system/provider does not fulfil, are clearly documented and the deciders are fully aware of it.

The final decision was made by the three executives and the shareholders based on the very detailed proposal. They and the entire involved management team have been very satisfied because with the decision they do know exactly what they get and do not get with the selected ERP system.

Lessons Learned – Summary

The acquisition of an ERP system was mainly a new task for the company and the investment very high (about 2-3 % of the expected turnover). The key decision makers and managers were been very busy with their daily business and did not have much capacity for an additional project. The hired consultant led, supported and guided through the process with years of experience. Without an independent or an internal experienced person there is a very high risk of taking the cheapest product or the one of the best sales representative. The team and the executives confirmed that they feel prepared for the implementation knowing the advantages and the disadvantages of the new system.



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Looking at the Hypotheses both can be confirmed with this example. The selected characteristics have been reflected with the triggers multiple times. All criteria have been constantly updated during the process and the team involved does know exactly what they get and do not get with the new ERP system. They have a tool to measure satisfaction with the system after implementation.

Concluding Remarks

The ERP decision process is a complex task with a high level of risk and uncertainty [18]. It is very important to spend a lot of time and effort up front to understand all requirements of the system, strategically, functionally and technically. It is very important to follow the right process and not to decide just on gut feel. Knowing exactly “why” they need a new system, the team can reflect the prioritized requirements throughout the entire selection process. At the final selection point it is clearly laid out what to expect but more importantly a clearly arranged list what they cannot get. Due to many iterations and adaptations the prioritisation will be very evident.

In addition, this process provides a structure for an evaluation of satisfaction at a later stage – after implementation and go-live. This is usually very rarely done and the question “was the implementation of the system successful?” cannot be answered.

SME companies need to follow a structured selection approach, define and prioritise the characteristics and involve multiple internal and external people in the decision making process.

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**THE IMPACT OF INCREASED EFFICIENCY IN
LOGISTICS PLANNING OPERATIONS
ON LOGISTICS PERFORMANCE**

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Introduction/Motivation

The main challenge of our times is finding strategies to successfully compete in today's modern and dynamic markets. Researchers will have to develop new, efficient solutions to handle a complex multitude of problems triggered by an ongoing change in economy and society [1] and rapidly raised competitive pressure [2]. In the field of logistics and supply chain management in particular there are several opportunities to increase the overall efficiency of a modern manufacturing enterprise [3]. A precise planning system could achieve a higher logistics performance (on time delivery rate, stock-outs) or lead to lower logistics costs.

The primary purpose of this paper is to develop a theoretical framework which could be used to enhance the quality of logistic planning processes. Therefore this paper provides a framework by reflecting and combining significant publications in the areas of organizational theories, logistics management and strategic planning. It creates a SEM (structural equation model) which could be used to improve the logistic performance of a company by developing an accurate planning process to achieve a continuous adjustment to the dynamic environment, which significantly contributes to a long-term protection of the company's market position [4]. The SEM (structural equation model) will be validated in further research.

Problem Scenario

The following observations exacerbate the planning and execution of logistic processes: Increasing globalization has not only created new markets for today's working world, but also has produced new, ever more capable competitors. The complexity of value adding processes is permanently on the increase, leading to a specialization and a strong division of labor within and between companies. As a result an ever-increasing number of employees and different departments are involved in complex processes. This leads to a high number of interfaces and media breaks which could create barriers for a logistics system. This is forced by the fact that enterprises attempt to focus on their core competences: *“Do what you can best, outsource the rest”*.



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Markets are becoming more and more volatile and risky [5]. Market volatility can disrupt supply chain partner's operations and lead to a logistics performance reduction and in worst case to inventory stock-outs throughout the supply chain. This is intensified by the scarcity of global resources [6] (getting the right resources in the right quality, quantity and costs at the right time to the right place) and the dynamics of capital markets.

Furthermore global markets keep on developing from seller to buyer markets and from the focus of product orientation to service orientation. Customers are becoming more demanding and asking for higher quality at lower costs [7]. This increased market pressure forces companies to higher their customer orientation by using individualization strategies (e.g. mass customization) [8]. As a result of these strategies customized products and processes can be useful in order to achieve a higher competitive advantage, but they also lead to a higher complexity and cost increases for all internal and external processes [9], [10], [11], [12]. Already Henry Ford observed the challenges of product individualization by mentioning: "*Give the customer any color they want, as long it is black*" [13].

Summarized it is a fact, that the modern business environment is seen as very complex [14] and dynamic which is why it is also called hyper-competition. If a company wants to successfully survive in the global market it must continuously implement activities to generate new competitive advantages, thereby engendering a clear differentiation between competitors [15].

The precise planning of all integrated logistic processes is the key to success when it comes to achieve a better logistics performance or reduce the logistics costs [16].

Logistics and Supply Chain Management

Definitions

Logistics management is defined as the process of planning, implementing and controlling efficient flow and storage of goods, services and related information from the point of consumption for the purpose of conforming customer requirements [17].

The logistical core function is described as getting the right resources in the right quality, quantity and costs at the right time to the right place. Logistics management is responsible for moving materials from the supplier into the company (inward logistics), moving materials out to customers (outbound or outward logistics) and moving materials within the organization (material management). Materials are all the things that an organization moves to create its products. These materials can be both tangible (such as raw materials) and intangible (such as information) [18].

Logistics management is focused on a single organization. If the focus of view is expanded from internal processes to the entire supply chain, logistics management is called intercompany logistics or supply chain management.

Supply chain management is defined as the management of a network of relationships within a firm and between interdependent organizations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow of materials, services, finances and information from



the original producer to final customer with the benefits of adding value, maximizing profitability through efficiencies and achieving customer satisfaction [19].

In the near future the increasing global competition will force organizations to compete supply chain versus supply chain instead of company versus company [20]. Straight-lined supply chains will not occur in the future. There will always be crosslinking activities between the different suppliers and customers along the same supply chains [21].

Components of Logistics Management

Logistics is responsible for the movement and storage of materials and information as they move through the supply chain [22]. Figure 1 [23] displays the main components of logistics management:

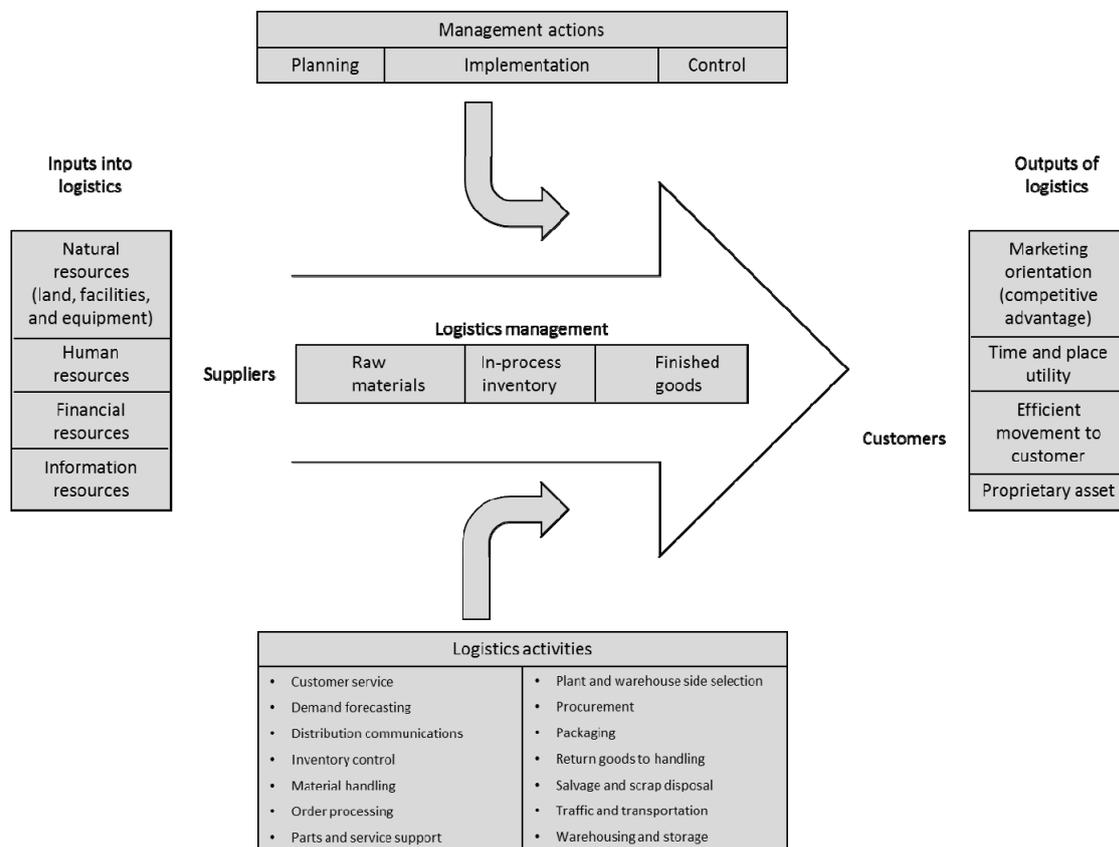


Figure 1. Main Activities of Logistics Management

Natural resources, human resources, financial resources and information resources are defined as the main inputs into a logistics system. Purchasing or procurement (purchasing order to supplier) usually initiates the flow of materials through an organization. This process is initiated by a purchasing order to a pre-selected supplier (including: terms and conditions, delivery, insurance and payment). Traffic or inward transportation moves the required materials



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from the supplier to the organization. Therefore Logistics must choose the type of transport, find the best transport operator, design a route, make sure that all safety and legal requirements are met and ensure to get the deliveries on time and at reasonable cost.

After receiving the goods will be checked and moved to the warehouse section to keep them in good condition. The required inventory data will be stored in the company's ERP system (material master data). Materials handling moves materials through the operations within an organization. The aim of materials handling is to give efficient movements, with short journeys, using appropriate equipment, special packaging and handling where needed. Logistics management is also responsible for recycling, returns, waste disposal and replacement of parts [24], [25], [26].

The Role of Logistics in Modern Economy

Logistics solutions have a large potential and should not be limited to basic functions such as transport, transition and storage, because the logistics performance of a company can be a decisive competitive factor and a significant differentiating feature. In fact classic concepts of internal material flow optimization (optimization of interfaces, parallelization, synchronization, stabilization of processes, etc.) are already starting to reach their limits, which leads to the cognizance that managers have to find new methods to optimize their internal and external processes [27].

There is enormous need for better planning processes [28]. 1) All internal material flow optimization concepts could only reach a restricted degree of leverage on the overall lead time. No matter how optimized the internal processes are, there will always be a high dependency on the integrated suppliers and a need for advanced planning and integration concepts. 2) When it comes to the point of handling complex systems with nonlinear dependencies and multi-factorial dynamics, internal material flow control concepts could only be a part of the solution. A total control is not possible and so it will be necessary to plan safety stocks to assure the customer promised level. 3) The data of an enterprise resource planning system could never be a hundred percent correct, so there always will appear errors caused by wrong or missing information.

The efficient use of data, information and knowledge as a production factor continues to be the initial point for a continuous improvement of processes and for activities to enhance organizational learning. In today's global environment, companies can only be competitive if they manage their knowledge elements as diligently as their use of materials, machines and equipment [29]. Even the half-value period of knowledge continues to decrease. The life cycles of technology are becoming shorter, in such way that a clear acceleration of an expiration of knowledge becomes apparent. [30]. The scarcity of resources in companies and the innate limit of human information processing abilities mean that companies cannot be limited only to internal resources, additional external sources of knowledge are also required. [31].

However, not merely the aggregation of knowledge but its flexible availability and application are most important [32]. Since not all data is proper information for everyone in the company, it is important for the right data to be available in the right place, at the right time and in the right quality [33]. This brings us to the conclusion, that there is a need of better understanding how planning and decision making processes in logistics operations work.



Influencing Theories and Approaches

There is a strong necessity to develop new concepts for logistics and supply chain management based on organizational theories [34]. Many researchers are testing different organization theories on their applicability in supply chain management [35]. They came to the conclusion, that there is a huge potential in applying theories (e.g. the knowledge-based view, strategic choice theory, agency theory, institutional theory, and systems theory) in the field of logistics and supply chain management and that definitely more research has to be done in this direction.

Planning and Information Flow in Logistic Processes

Definition

There is no concise definition of planning in the management literature. It is best described as a rational, target-orientated process which includes future actions. Planning is a process of decision making, while considering relevant information. Without the right data, information and knowledge, planning is not possible [36]. Planning could be classified in long-range, mid-range and short-range planning, or strategic, tactical and operative planning or it could be classified by the function of planning (e.g. logistics planning) [37].

Need of Precise Planning Activities in Logistics Management

A precise planning process of logistics activities is the key to a better logistics performance and to lower logistic costs. Regardless of industry or whether the company is a manufacturer, wholesaler retailer or service provider, effective planning and demand forecasting helps organizations identify market opportunities, enhance the channel relationships, increase customer satisfaction, reduce inventory investments, eliminate product obsolescence, improve distribution operations, schedule more efficient production and anticipate future and capital requirements. [38]. A few publications claim that planning in a dynamic environment is not possible: “planning is like a ritual rain dance and has no effect anymore” [39], “planning is unnecessary evil” [40].

State of the Art: Planning

After a comprehensive literature review we came to the conclusion, that there are no relevant publications regarding the impact of planning quality on the performance of logistics operations. Only a few useful publications can be found in the related field of production sciences [41], [42].

The majorities of existing publications conceptualize the planning process by conducting a systematic research on existing planning systems.

Dyson/Foster [43] defined twelve parameters to evaluate the efficiency of strategic planning (e.g. integration of planning function in managerial decision making, catalytic action of planning function, richness of formulation, breadth of evaluation, treatment of uncertainty, data quality, iteration in process, control measures, resources, planned, explicit mentioning of assumptions, definition of goals and feasibility of implementation). King [44] measured the planning system by considering the available resources, the grade of the achievement of targets,



the process maturity of the planning system and the planning system output. Prekumar/King [45] rated planning systems by the quality of the information system, the quality of available resources, the target definition and the grade of integration.

Only a handful of publications are focusing the main influences on the planning efficiency. Neuert [46] measured the efficiency of operative planning processes by the formal efficiency, the substantial efficiency and by the personal efficiency. Charavarthy [47] reviewed the efficiency by comparing the external and internal fit, the control cycles and the grade of innovation of the planning system. Schäffer/Weber/Willauer [48] scaled the planning system by efficiency and effectiveness, by grade of implementation of planning activities, grade of new planning activities and by the intensity of planning.

Construct Development, Structural Equation Model

Figure 2 displays the SEQM and the main hypotheses based on the literature review.

SEM

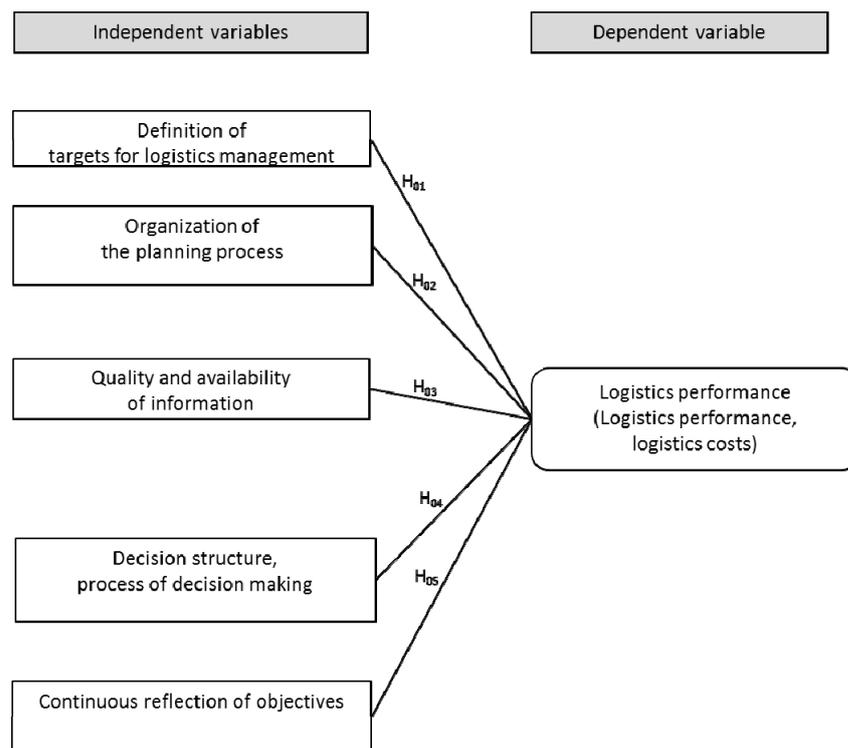


Figure 2. SEQM

Hypotheses:

H₀: The quality of information processes within the logistics planning system is positively related the logistics performance.



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H01: The grade of logistics target definition is positively related to logistics performance.

There is always a conflict in the definition of logistics targets (e.g. delivery performance and inventory levels). A clear definition will positively influence the logistics performance.

H02: The grade of the organization of the planning processes is positively related to logistics performance.

A better organization of the planning activities (structure, grade of organization), will positively influence the outcome.

H03: The quality and availability of information is positively related to logistics performance.

The availability and quality of data information will improve the logistics planning quality. It is very important to measure the performance of production and supply, to include forecasts in the planning process to process knowledge information systems and to share knowledge among the entire supply chain.

H04: The grade of integration of planning functions in managerial decision making and the decision making process quality is positively related to logistics performance.

H05: Continuous reflection and adaptation of objectives is positively related to logistics performance.

Further Research and Next Steps

The causal relations will be tested within a structure of the SEQM (structural equation model).

Structural equation modeling (SEM) is a collection of statistical techniques that allow a set of relationships between one or more independent variables (IVs), either continuous or discrete, and one or more dependent variables (DVs), either continuous or discrete, to be examined. Both IVs and DVs can be either measured variables (directly observed) or latent variables (unobserved, not directly observed). Structural equation modeling is also referred to as causal modeling, causal analysis, simultaneous equation modeling, analysis of covariance structures, path analysis, or confirmatory factor analysis [49].

We will develop a questionnaire based on literature review and explorative interviews with experts in the field of logistics and supply chain management. We will get the required data from over 120 industry enterprises having similar size and operate in similar markets in order to make them comparable.

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