SOCIAL SOFTWARE PLATFORMS AS MOTOR OF OPERATIONAL AIRPORT EFFICIENCY? – A CONCEPTUAL FRAMEWORK

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Abstract

Purpose. Due to commercialization, privatization and liberalization, the traditional role of German airport organizations as merely providers of infrastructure gives way to a more market-oriented understanding. Airport service quality and the ability to constantly innovate are important variables that contribute to overall airport attractiveness. Despite that airports are becoming increasingly aware of the need for customer-orientation, the majority of airports still suffer from a lack of genuine customer (passenger) insights. This due to the fact that airlines and tour operators own the passenger relationship and data. The emergence of public social software platforms (SSP), such as the online social network Facebook, is now enabling airport organizatons to enter into a dialogue with the passenger and gain a deeper understanding of passenger needs while leveraging social capital. The research paper examines, if airports are able to increase their operational efficiency when entering into a collaborative communication with their customers on SSP.

Design/methodology/approach. Based on a social capital / network approach to organizational work, the paper discusses the convergence of social and technological networks and the underlying motives of customers and organizations for joining social software platforms.

Findings. The paper proposes a theoretical model to describe how a mutually beneficial relationship between organizations and customers on Facebook can help airports to reach economic goals. As a next step, the theoretical model will be operationalized and empirically tested in 2012 using qualitative and quantitative research.

Originality/value. Social capital research as well as the adoption of SSP by organizations is still mainly scoped within organizational boundaries. The paper broadens the research focus to the focal actors *organization* and *customer*. From a practitioners' point of view, airport managers might find it useful to learn what organizational challenges arise when engaging with customers on social software platforms.

1. Introduction

In the last decades German airport industry has undergone a lot of changes due to commercialization, privatization and liberalization. The traditional role of airports as providers of infrastructure serving macro-economic purposes is changing and gives way to a more market-oriented understanding. Airport service quality and the ability to constantly innovate are important variables that contribute to overall airport attractiveness in addition to location, price, destination portfolio and flight scheduling [1]. Passenger insights are paramount for aligning airport service quality with passenger needs. However, airports are complex business relationship networks that lack genuine passenger insights. While no airport would exist without passengers, the passenger relationship and data base is owned by airlines and tour operators. Complexity is added by fact that numerous airport services are not provided directly by the airport to the passenger, but through concessionaires, tenants, handling agents etc. Current measures of airport service quality, such as passenger satisfaction surveys, are useful for benchmarking purposes, but do not reveal the true customer perspective. Typical passenger pain points are waiting times at check-in and baggage-drop off counters, lack of cleanliness of airport facilities or orientation in terminal buildings. Reducing the passenger to a statistical number while measuring the obvious might take the form of both operational weaknesses as well as limitations on customer-centric services.

With a growing adoption of public Social Software Platforms (SSP) by customers, such as the globally most adopted online social network Facebook, airports eventually are provided with the infrastructure to enter into a dialogue with their passengers and to continuously gain direct passenger-knowledge. SSP are web-based services that allow users to set up a profile within a bounded system [2], virtually connect to other users, groups or organizations and share information, videos, photos etc. with their network of connections based on privacy settings. As of December 2011 Facebook counts more than 800 million active users worldwide (Germany: 21.6 Mio.). 50% of all active users log on to Facebook each day. More than 350 million active users access Facebook through mobile devices, for example smart phones or tablets [3]. 73% of all international German airports maintain a corporate profile on Facebook to provide information about the airport and offer a platform for discussion and feedback for passengers and other stakeholders.

SSP shape the environment in that human interactions take place, meaning that they have an impact on the transformation of human society [4]. When the CLUETRAIN MANIFESTO postulated that the industrialization was not much more as an interruption of the social relationship between organizations and their customers [5], this thought has been revolutionary. Ten years later, with the convergence of social and technological networks, the prophecy turns into reality. Customers are becoming increasingly empowered, as social infrastructure and platforms of participation are catching up with the business infrastructure [6; 7]. During the time period of industrialization, economies-of-scale, division-of-labour and mass marketing organizations merely talked *at* the customer. The social relationship between organizations and their customers eroded - and so did social capital. The concept of social capital is gaining currency in organization studies. It has been proven useful in explaining "an actors' relative success in a number of arenas of central concern to organizational researchers" [8]: for example achieving financial benefits [9], facilitating information exchange and collaboration [10; 11] or fostering organizational innovation [12].

The growing adoption of SSP is now enabling organizations to talk *with* the customer: "If you like thinking in organizational terms, the customer has a seat at the table, and is part of your Monday morning staff meeting in all departments" [13]. The advent of SSP demands for a new marketing paradigm. GUMMESSON defines marketing as a dimension of society with the core variables of relationships, networks and interaction. He argues that marketing must no longer be treated as an isolated discipline, but needs to be broadened to general management and social life [14].

On SSP interpersonal relations as well as the relations between organizations and their customers are extended into the digital world. By setting up a user profile, individuals publicly display their social relations (connections) to other individuals, groups or organizations and by this enable researchers to get a glimpse of their offline social network. SSP have become a popular research topic for interdisciplinary scholarship. "Science advances whenever we can take something that was once invisible and make it visible; and this is now taking place with regard to social networks and social processes" [15]. As interactions on SSP may also be of non-economic nature, the research findings of scholars of psychology, behavioral economics and sociology might prove to be useful for organizations that aim to engage with their customers on SSP for mutual benefit.

2. Research Questions

To be able to tap into the potential of SSP, airport organizations need to understand their motivational pull. The following research questions are formulated:
1. What are the motives of individuals for joining SSP?
2. How can airport organization leverage SSP for achieving economic goals?

3. Research Approach

The paper is based on a social capital/network approach to organizational work. A social capital approach to organizational work is different from an atomic organizational theory, which is concerned with individual transactions between an individual customer and an organization, such as single service episodes, but ignores the relationship networks between the organization and its customers as well as among customers. It takes the intangible elements of the customer-organization relationship, such as the need of the customer to be cared for and recognised into account [11]. The network-/relationship-approach is not new to business research. It rather encounters a renaissance due to the rise of social software platforms. Taking a historical perspective, social capital was already vital in ancient trade, when business relationships have been personal and local [16]. Touching on the need-satisfier approach of MAX-NEEF the motivational pull of SSP is analysed. Contributions from Self-Determination Theory (SDT) are used for deducing criteria for achieving customer engagement on SSP.

4. Research Gap

In organization studies social capital research as well as research on the adoption of SSP by organizations is still mainly scoped within organizational boundaries (see for example [17]

on knowledge sharing in communities of practice, [18] for use patterns of social networks sites by Microsoft employees or [19] for case studies on BBC, CIA, Google and Serena Software). With organizations and customers connecting online, two focal actors are building a social relationship relatively new to social capital research: a formal entity (organization), that consists of a collection of individuals (employees), and an individual (customer) that – as opposed to an employee – is not part of the organization. This results in a need to broaden the research focus. The research paper aims to make some initial contributions in this research area. Other scholars are invited to refine, correct or expand on it in future.

5. Related Work

The majority of existing research on the collaboration of customers and organizations on SSP has been conducted by media or management consultancies with a clear focus on consumer brand companies not on service-oriented organizations, such as airports. In 2010 UNIVERSAL MCCANN, a global media agency, published the international research study "The Socialization of Brands", based on the survey data of 37.600 internet users in 54 countries. The findings show that customers demand for a more social and interactive relationship with consumer brands and that online social networks are driving brand loyalty and sales [20].

A survey of HULME, conducted for the technology provider Alterian, using representative quantitative and additional qualitative studies in addition to desk research showed that 75% of sampled active social software users in the UK und US believed that "there would be a positive impact from companies taking more time to find out about their needs and interests" [21] provided that feedback is acted upon and the outcome benefits the customer. 82% of the sample expressed a positive interest to get involved with developing products and services. The study also highlights that the implications for organizations, for example concerning necessary departmental restructuring, are not fully understood at the most senior management levels.

Communication patterns of organizations on Facebook are explored in a global desk research study by A.T. KEARNEY [22]. In the time period of November and December 2010 the Facebook pages of 50 leading brand companies have been analyzed. Key finding is that most of the companies do not yet leverage the benefits of a collaborative communication with their customers, but use Facebook primarily as a one-way communication platform.

6. Understanding the Motivational Pull of SSP

Understanding the motivational pull of SSP is crucial for organizations that want to tap into their potential. RHEINGOLD argues that "people in virtual communities do just about everything people do in real life, but we leave our bodies behind" [23]. Consequently it can be argued that individuals establish network ties to other individual or organizations to leverage social support in order to satisfy their fundamental human needs und by this increase the quality of their lives. Social relations act as a mediator for need satisfaction, as human beings are dependent on others to attain goals [24].

Put in other words, social capital is a precondition for goal achievement. Social capital is generally defined as "investments in social relations with expected return" [25]. The expected

return can be equaled with the expected degree of need satisfaction. SSP provide individuals with facilitated access to social capital.

While traditionally organizations mainly focused on the customer needs, the motivational pull of social software platforms demands for a holistic approach. It is vital to not only consider the customer as a *customer*, but first of all as a *human being*. Therefore, organizations need to take a broader perspective and to also address the fundamental human needs of a customer rather than narrowing down the focus to the customer needs. Only paying attention to the customer needs would reduce the human being "into a category of restricted existence" [26]. During the research paper the following classification of fundamental psychological human needs is applied [27]:

1) Self-Determination/Autonomy;
2) Relatedness;
3) Recognition;
4) Meaning/Orientation.

According to Self-Determination-Theory [28; 29], an autonomy-supportive social context combined with a feeling of relatedness and feedback that signifies competence and fosters recognition increases the motivation of individuals to engage in an activity. A controlling social context, lack of affectionate care and negative competence feedback undermines motivation. In addition, individuals need norms and values to guide their action and provide for orientation and meaning. Thus, we need to understand to what extent organizations can generate satisfiers to support need fulfillment of their customers and avoid the impairment of needs when entering into a dialogue on SSP. Table 1 suggests success factors for organizations to create customer engagement on SSP.

Table 1

**Achieving Customer Engagement on SSP by Generating Satisfiers
for Fundamental Human Needs**

Human Need	Satisfier
Self-Determination; Autonomy	• Autonomy supportive communication content (actuality, relevance, actionable knowledge) • Autonomy supportive communication context (communication not controlled by events, customer data only used with permission)
Recognition	• Communication fosters customer contributions • Positive feedback on customer contributions is provided
Relatedness	• Communication acknowledges unique distinctness of customer (personalized communication) • Communication creates a sense of community
Orientation	• Transparent communication of realistic service promises • Fulfillment of service promises

7. SSP as Motor of Economic Growth

Passenger insights are key to create and sustain unique value propositions, align the passenger service process accordingly and by this increase passenger satisfaction, loyalty and profitability. Customer satisfaction can be seen as a driver of profitability. Satisfied customers are likely to establish a strong relationship to the service provider resulting in customer loyalty and positive word-of-mouth [30]. Learning about gaps between the service quality expectations of passengers in contrast to their perception of the way the service is performed is a precondition for airport managers to carefully determine necessary investments in airport service quality. All quality improvement efforts need to be financially accountable. Based on customer feedback some potential improvements might be evaluated as being ineffective, as they have no impact on overall customer satisfaction [31].

As innovative airport services of today may quickly become the minimum expectations of tomorrow, it is also important for airports to timely notice shifting customer expectations to keep passengers satisfied und to keep up with competing airports. To sustain stable revenues for themselves and their business partners (airlines, shopping outlets, restaurants etc.) maintaining a dialogue with passengers is also beneficial for airports to uncover new revenue opportunities based on customer knowledge or for evaluating new service ideas. Figure 1 shows a generic airport strategy map.
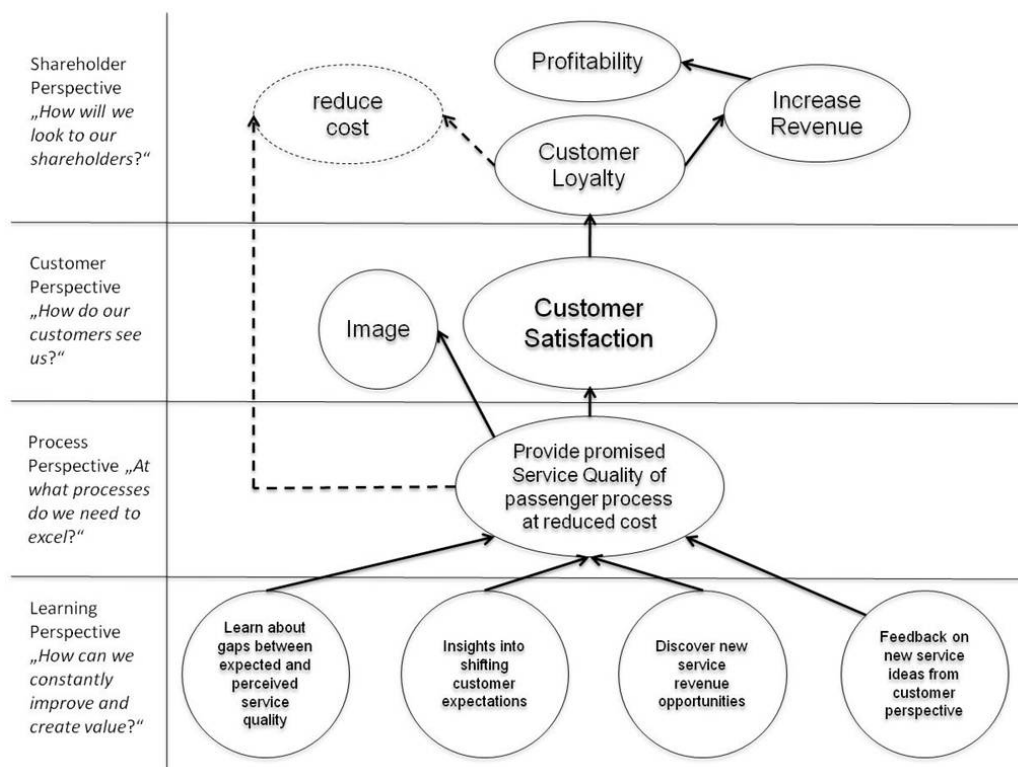

Figure 1. Generic Airport Strategy Map (developed by author based on [32])

SSP offer an opportunity for airports to engage with passengers and gain valuable insights into their expectations and attitudes while increasing the efficiency of quality assurance and innovation processes for mutual benefit. It is not surprising hat organizations that maintain network connections that cross organizational boundaries (weak ties that span a structural hole) are more innovative or adaptive as compared to their competitors, as external network connections provide information sometimes not available within the organization itself [33]. Customers also increasingly expect organizations to maintain a corporate profile on public SSP.

8. Theoretical Model

As previously shown airports join SSP to reach economic goals (satisfy need for subsistence), e.g.:

- Gain richer and more context-aware customer insights as opposed to customer surveys
- Increase operational efficiency due to real-time communication with the customer (reduced time for complaint handling, earlier detection of shifting customer expectations, facilitated management of customer expectations with regard to airport service quality etc.)
- Sustain customer satisfaction by interacting with the customer on a platform he is expecting the organization to maintain a virtual presence while acknowledging the unique distinctness of each customer (personalized communication)
- Foster and increase reach of positive-word-of-mouth (customer advocacy)

Customers join SSP to satisfy their fundamental human needs:
- Self-Determination/Autonomy
- Relatedness
- Recognition
- Meaning/Orientation

According to Self-Determination-Theory the generation of need satisfiers results in higher task commitment and engagement. With regard to the interactions of passengers and airport organizations on SSP, generating satisfiers for human needs results in an increased motivation of the passenger to interact with the airport and to volunteer information or spread positive word-of-mouth. If human needs are impaired, reciprocal behavior will not occur. The future value of the relationship will decrease from the perspective of the customer, and so will the investment of effort in maintaining the relationship on SSP [34].

Based on the discussed theoretical foundations, the following basic hypothesis is postulated: **The adoption of SSP by airport organizations only increases the perceived social capital from the perspective of the airport (economic need satisfaction), if the perceived social capital increases from the perspective of the passenger (human need satisfaction).**

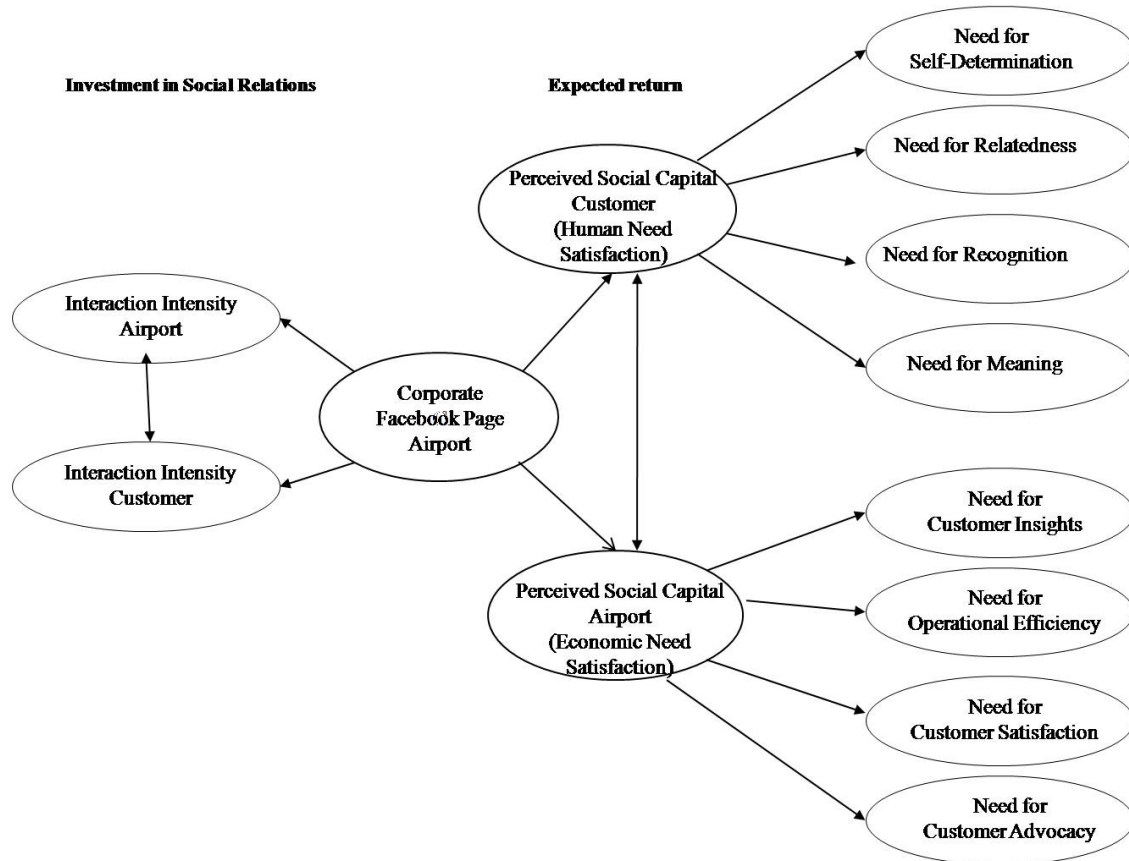Figure 2 illustrates the suggested theoretical model based on the example of the SSP Facebook.

Figure 2. Theoretical Model Based on Facebook

8. Conclusions and Further Research

The paper argues that understanding and responding to service quality expectations of passengers is a precondition for delivering competitive airport services. It was shown that airports lack high quality customer insights, as airlines and tour operators have ownership of the passenger relationship and data base. Current measures of airport service quality, such as frequent passenger surveys, are useful for benchmarking purposes, but do not provide in-depth customer insights or the opportunity to establish a relationship to the passenger beyond the process of actual service consumption. With the advent of public SSP airports are able to enter into a dialogue with their passengers and take a genuine customer-centric approach to airport service quality. The paper contributes to an understanding of the motivational pull of SSP. Touching on the need-satisfier approach of economist Max-Neef and findings from Self-Determination-Theory success factors for fostering customer engagement on SSP were deduced. Based on the example of Facebook, the paper suggests the hypothesis that interactions on SSP that are governed by norms of reciprocity increase the social capital for both, the passenger (human need satisfaction) and the airport (economic need satisfaction). Though customer

engagement is an off-balance-sheet item, it is a key asset for co-creating an airport service experience that is aligned with passenger requirements and by sustainable customer satisfaction.

Mutually beneficial relationships between airport organizations and their customers increasingly become the motor of organizational development and competitive edge. If competing airports provide a similar technical service quality, managing the social dimension needs to become dominating. Further research is conducted to detail the theoretical model that will be subjected to empirical testing (qualitative and quantitative research) resulting in either acceptance or refutation of the suggested hypothesis.

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