



## 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]



## 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
<b>Fit with Strategy / Organisation</b>								
	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
<b>Functionality / Business Process Fit</b>								
	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
<b>Technology</b>								
	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							
<b>Vendor</b>								
	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
<b>Economical</b>								
	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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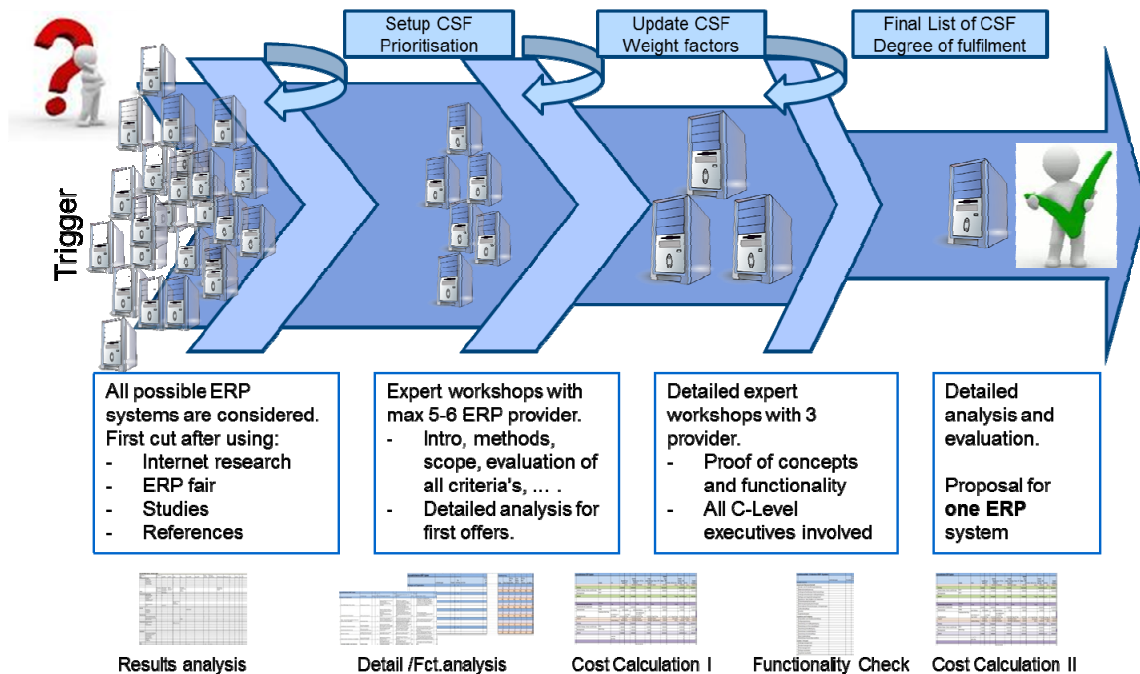


Figure 1. Selection Process and Documents (created by author 2012)

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.

## References

1. Parr, Anne; Shanks, Graeme. A model of ERP project implementation, *Journal of Information Technology*, Vol. 15, 2000, pp. 289-303.
2. Caruso, Dave. ERP is in the picture for midsize manufacturers. *Manufacturing Business Technology* (Ed.), 11/2005, 20 p.
3. Jutras, Cindy, Mid-size companies need ERP now more than ever. *MBTmag.com*, 2009, 13 p.
4. Jacoby, David, Thinking Big, Midsize companies and the challenges of growth. *Economist Intelligence Unit* (Ed.), 2/2006.
5. Violino, Bob, The Next-Generation ERP, *Cioinsight* (Ed.), 2008, pp. 54-57.
6. SAP (Ed.), Mehr Leistungsfähigkeit und Effizienz für prof. Wachstum. *SAP Lsg. Mittelstand*, 2008.
7. Dwivedi, Devesh, EPR Software for small business. *Better Management Tools, Chemical Business* (Ed.), 6/2007, p. 27f.
8. Ifm Bonn, Statistics 2010. [www.ifm-bonn.org](http://www.ifm-bonn.org), Statistics, [www.ifm.uni-mannheim.de](http://www.ifm.uni-mannheim.de) (Institute für Mittelstandsforschung).
9. Schmitz, Christian; Biermann, Philipp, Beschaffungsprozesse mittelständischer Unternehmen. *ZfKE – Sonderdruck*, 4/2007.
10. Biermann. Phillip, Marketinglösung für das mittelständische Kundensegment der Schweizer Branche für IT, 2005.
11. Percin, Selcuk, Using the ANP approach in selecting and benchmarking ERP systems. *Benchmarkin: An international journal*, 2008, Vol. 15, No. 5, pp. 630-649.
12. Jacob, Olaf; Uhink, Hans-Jürgen, *SAP R/3 im Mittelstand*. Vieweg Verlag, 1998, 357.
13. Verville, J.; Harlinton, A., A six-stage model of the buying process of ERP software. 2003, pp. 585-594.
14. Fisher d., Fisher, S., Kiang M., Chi R., Evaluating Mid-Level ERP Software. *Journal of Computer Information Systems*, 2004, pp. 38-49.
15. Verville, J.; Harlinton, A., Analysis of the decision process for selecting ERP software: a case of the Keller Manufacturing. *Emerald Database*, 2002, pp. 423-432.



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16. Verville, J.; Harlinton, A., An investigation of the decision process for selecting an ERP software: the case of ESC. *Management Decision*, 2002, Vol. 40, No. 3, pp. 206-216.
17. Verville, J.; Harlinton, A., Information searches: a two-dimensional approach for ERP acquisition decision. *Journal of information Science*, 2003, Vol. 29, No. 3, pp. 203-209.
18. Verville, Jacques; Bernadas, Christine; Halington, Alannah, So you're thinking of buying an ERP? The critical factors for successful acquisitions. *Journal for Enterprise Information Management*, 2005, Vol 18, No. 6, pp. 665-677.
19. Palanisamy, Ramaraj; Verville Jaques; Bernadas, Christine; Taskin, Nazim, An empirical study on the influences on the acquisition of enterprise software decisions. *Journal of Enterprise Information Management*, 2010, Vol. 23, No. 5, pp. 610-639.
20. Hong, K-K; Kim, Y.-G., The critical success factors for ERP implementation: an organizational fit perspective. *Information & Management*, 2002, Vol. 40, pp. 25-40.
21. Snider, Brent; da Silveira, Giovanni J.C., Balakrishnan, Jaydeep, ERP implementation at SME's: analysis of five Canadian cases. *International Journal of Operations & Production Management*, 2009, Vol. 29, No. 1, pp. 4-29.
22. Sumner, Mary; Bock, Douglas; Giamartino, Gary, Exploring the linkage between the characteristics of IT project leaders and project success. *Information System Management*, 2006, pp. 43-49.
23. Trimi, Silvana; Sang, M. Lee; Olson, David L, Erickson, John, Alternative means to implement ERP. *Industrial Management & Data Systems*. 2005, Vol. 105, No. 2, pp. 184-192.
24. Zobjek, Damijan; Kovacic, Andrej; Stemberger, Mojca, Indihar, The influence of business process management and some other CSFs on successful ERP implementation. *Business Process Management Journal*, 2009, Vol. 15, No. 4, pp. 588-608.
25. Verville, J.; Harlinton, A., The effect of team composition in the ERP acquisition decisions. *Team Performance Management Journal*, 2003, Vol. 9, No. 5, pp. 115-130.
26. Everdingen, Y., Hillegersberg, J. and Waarts, E., ERP adoption by European midsize companies. *Communications of the ACM*, 2000, Vol. 43, No. 4, pp. 27-31.
27. Lee, Zoonky; Lee, Jinyoul, An ERP implementation case study from a knowledge transfer perspective. *Journal of information technology*, 2000, 15, pp. 281-288.
28. Soh, C., Kien, S. and Tay-Yap, J., Cultural fits and misfits: is ERP a universal solution? *Communications of the ACM*, 2000, Vol. 43, No. 4, pp. 47-51.
29. Juras, Cindy, Don't overlook the basic plumbing that is ERP. *MBTmag.com*, 2008.
30. Laukkanen, Sanna; Sarpola, Sami; Hallikainen, Petri, Enterprise size matters: objectives and constraints of ERP adoption. *Journal of Enterprise Information Management*, 2007, Vol. 20, No. 3, pp. 319-334.
31. Shiau, Wen-Lung; Hsu Ping-Yu; Wang, Jun-Zhong, Development of measures to assess the ERP adoption of small and medium enterprises. *Journal of Enterprise Information Management*, 2009, Vol. 22, No. 1/2, pp. 418-433.
32. Van der Vorst, Claudia. Selecting an ERP-Software at a mid-size company. An investigation of the decision making process. In: *Current Issues in Management of Business and society development: Conference Proceedings, Riga, Latvia, May 5-7, 2011, University of Latvia*. Riga: University of Latvia, 2011.
33. Perera, H.S.C.; Costa, W.K.R., Analytic Hierarchy process for selection of ERP software for manufacturing companies, *Journal of Business Perspective*, 2008, Vol. 12, No. 4, pp. 1-11.
34. Deep, Aman; Guttridge, Peter; Dani, Samir; Burns, Neil, Investigating factors affecting ERP selection in made-to-order SME sector. *Journal of Manufacturing Technology Management*, 2008, Vol. 19, No. 4, pp. 430-446.
35. Baki, Birdogan; Cakar, Kemal, Determining the ERP package-selecting criteria. *Business Process Management Journal*, 2005, Vol. 22, No. 1, pp. 75-86.
36. Shehab, E.M.; Sharp, M.W.; Supramaniam, L.; Spedding, T.A., Enterprise Resource Planning, An integrative review. *Business Process Management Journal*, 2004, Vol. 10, No. 4, pp. 359-386.