FUTURE REQUIREMENTS OF ERP SOFTWARE FROM THE VENDORS' POINT OF VIEW

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Abstract

CIOs and CEOs are confronted with the key question of choosing the right ERP software for their company. The evaluation process tends to be painstaking as the outcome usually affects the competitiveness and thus the future of the company itself. Packaged software has become so powerful in recent years that it fulfils the requirements of companies from different industries after a thorough customization process. Nevertheless, case studies and anecdotal evidence show that in many cases ERP implementation projects are demanding and results do not meet expectations. This leads to the question of whether and how ERP vendors are addressing the perceived problems of ERP users. Is there work in progress that will help facilitate the selection and implementation of ERP packaged software for users? Will there be tools available to adopt ERP modules to the specific business processes of a company and – taking into account that processes are likely to change over time – will there be mechanisms available to adapt the software to changing requirements (in the literature discussed as "agility")? These are the questions that stimulated an in-depth study of the German-speaking ERP software market. In a qualitative study based on thirty interviews with ERP vendors we draw a picture of the value proposition of future ERP software.

Keywords: ERP systems, software development, requirements, IT value, packaged software.

1 INTRODUCTION AND LITERATURE REVIEW

Integrated business software (ERP systems) covers all relevant aspects of an enterprise (Davenport, 1998). "Business information systems can be either designed as custom applications or purchased as off-the-shelf standard solutions" (Scheer & Habermann 2000; Soh and Sia, 2005) (the latter is called "packaged ERP software" in this article.). According to the literature, today most companies turn to packaged software when looking for an enterprise solution (Schubert and Leimstoll 2004). Holland and Light recognized this trend almost 10 years ago when they said "companies are radically changing their information technology strategies by purchasing pre-packaged software instead of developing IT systems in-house" (Holland & Light, 1999).

Therefore many enterprises rely on external partners when it comes to business software. In recent years, researchers in the field of business software have investigated new architectural concepts and technologies for ERP systems including service-oriented architectures (SOA), Web services, XML and modularity. These are keywords which have been circulating for some years in the business software world. According to the experts, modern enterprise systems should be service-oriented, constructed in a modular form, and communicate via Web services. In addition the overwhelming variety of different interchange formats for business documents should be brought to an end by recognized XML standards (McGovern, Sims, Jain and Little, 2006; Yucesan, 2007). The question

which presents itself however, is much more far-ranging. Is a business solution sustainable if it does not fulfil the above mentioned requirements?

There are many systems in active use that are over six years old (Schmitt 2007; Winkelmann, Knackstedt and Vering, 2007) that follow few or none of the desired principles mentioned above. So for ERP vendors and ERP customers alike it is of reasonable interest to know about future challenges and opportunities. In small and medium-sized companies in particular, the introduction of a new system, or the migration of old to new platforms is accompanied by high costs in relation to turnover and, naturally, by associated risks (Scott & Vessey 2002; Winkelmann and Klose, 2008). The results of an SME study show that "the most important criterion used in selecting an information system is the best fit with current business procedures" (van Everdingen et al. 2000, p. 29). If a new system is needed, one should know exactly what it can do and how it will achieve this. A recent study confirms that "(…) companies often face the dilemma of whether to adapt to the software and radically change their business practices or modify the software to suit their specific needs." (Dalal et al. 2004, p. 84)

Enterprise agility is understood as the ability of a company to adapt to new market requirements with the help of its ERP software and is a topic that has been discussed in academic literature in recent years (Gattiker et al. 2005; Sambamurthy et al. 2003). Concepts such as *Service-oriented Architectures* (SOA) (Liebhart 2007; Jankowska & Kurbel 2005) and *Business Process Modelling* (BPM) call loudest for research on flexible systems that can adapt themselves to user needs (Newcomer & Lomow 2005).

In order to be able to draw a picture of the state-of-the-art in ERP research we started our research process with a preliminary query of the EBSCO database using the search word "ERP", "enterprise resource planning", and "enterprise systems". The search resulted into more than 40 articles of which 22 were interesting in the context of our project. Most of the papers stem from three special issues on ERP/enterprise systems (two in EJIS and one in CACM). Among the ones that we did not include were articles on performance measurement/cost-benefit analysis which are important topics for ERP but were not within the scope of our research. It is interesting to note that many authors underline the unvaried importance of enterprise systems for the competitiveness of companies and thus the importance of the topic for IS research. The following list contains an overview of the topics treated in the selected papers:

- ERP implementation: 10
- Process modelling: 3
- ERP system agility: 4
- ERP adoption: 2
- Miscellaneous (cultural aspects of ERP: 1, open source ERP systems: 1, ERP integration: 1)

The majority of articles deal with ERP implementations (Holland & Light 1999; Akkermans & van Helden 2002; Markus et al. 2000; Scott & Vessey 2002; Gosain et al. 2005; Biehl 2007). Two reports are on ERP implementation failures (Iacovou & Dexter 2005; Wei et al. 2005), two papers are specialized on upgrading ERP systems (Beatty &Williams 2006; Khoo & Robey 2007). There is a noticeably large number of case studies used in the articles to illustrate the findings. Process modelling (Scheer & Habermann 2000; Dalal et al. 2004; Delen et al. 2005) and ERP adoption (van Everdingen et al. 2000; Hwang 2005) focus on the need of the company to plan and adapt to the possibilities of the software system. The articles dealing with *system agility* show the need for flexible systems with regard to future requirements (Smith et al. 2003; van Oosterhout et al. 2006; Overby et al. 2006). It was interesting to see that none of the articles dealt with how or where companies operate their business software. The implicit assumption was that ERP software is operated by the user company itself. With the latest discussion of Application Service Providing (ASP), Software-as-a-Service (SaaS) as well as "on demand software" on our minds, we decided to also study the *mode of operation* (and thus the possibility for outsourcing) of future ERP systems.

With these considerations in mind the authors launched an investigation on the future requirements of packaged ERP systems. The underlying research question was the following:

What are future packaged ERP systems going to look like?

In order to answer this question, an empirical study of the ERP market in the German-speaking area of Europe was performed. We applied an explorative approach which used an empirical research method (interviews with ERP vendors) (Mayer 2004) in combination with an evaluation approach following Mühlfeld (1981) and Miles and Huberman (1994).

2 BACKGROUND OF THE EMPIRICAL STUDY

Since the study was geared at future requirements of packaged ERP software in the German-speaking market we chose an explorative research approach due to the unknown correlations that might affect our research objective. The study provides a structured overview of the different influential aspects such as technology or architecture and to reveal interdependencies among these components. We chose an empirical research method (Mayer 2004) because we wanted to collect knowledge from industry experts.

2.1 Research method

Mayer (2004, p. 30) suggests a general approach which starts with the development of a model. According to him five sources of information (theories, expert knowledge, common knowledge, literature and similar studies) are necessary to create a *theoretical model* which describes the research realm (the relevant part of reality). The next step includes the definition of all *relevant concepts* represented in the model followed by a *dimensional analysis* which deepens our understanding on a granular level. In the last step, the method of investigation needs to be selected (qualitative approach vs. quantitative approach). Since we intended to follow an explorative approach we selected a qualitative-oriented method. We created an interview guideline based on our theoretical model and evaluated the results.

2.2 Theoretical Model

The research was initialized by a preliminary query of the EBSCO database which gave us a general overview of relevant articles in the European Journal of Information Systems, Communications of the ACM and IEEE Software (mentioned above). In an initial workshop with an established ERP vendor and several other experts, key areas and relevant research questions were systematically identified. Areas of interest in the field of ERP systems such as business process modelling, SOA, Web Services and system architecture in general were discussed during the workshop.

The first version of the emerging theoretical model was based on practical experiences of the *software vendor* and the *ERP experts* who took part in the workshop. *Architecture*, *technology* and *operations* were identified as the initial three abstract model components. A consecutive literature analysis revealed that there are many publications which deal with architecture, technology and operations but there are additional studies which focus on *market share* and *market development*. We thus added the dimension "*Market*" to the model. The more detailed development of the model was performed by the authors based on existing ERP literature. In this phase we found a similar ERP study from 2007 with a focus on the *user side* with the title "Future development of packaged ERP-software" (Felley 2007) which provided us with valuable insights from the opposite perspective –the customer's viewpoint.

The final result of this preparatory phase was a comprehensive multi-layer model which served as the basis for the development of the interview guideline (cf. Figure 1). The model includes all five sources mentioned by Mayer (2004, p. 30) (theories, expert knowledge, common knowledge, literature and similar studies).

The research questions for the analysis of requirements regarding ERP systems can be classified into aspects which contain conceptual and technical aspects as well as examined possible application

scenarios and market-relevant developments. The framework represents all the characteristics of an ERP system which the authors intended to study. In total, four aspects of an ERP system were defined:

- *Architecture*: This aspect contains the general concept, modelling as well as functional and integrative mechanisms.
- *Technology*: This aspect highlights necessary tools for internal operation and external integration (Volkoff et al. 2005).
- *Operation*: This aspect investigates the place of the software installation, maintenance and licence models.
- *Market*: This aspect includes the study of *customers* and *competitors* – the market environment which the commercial software provider faces.

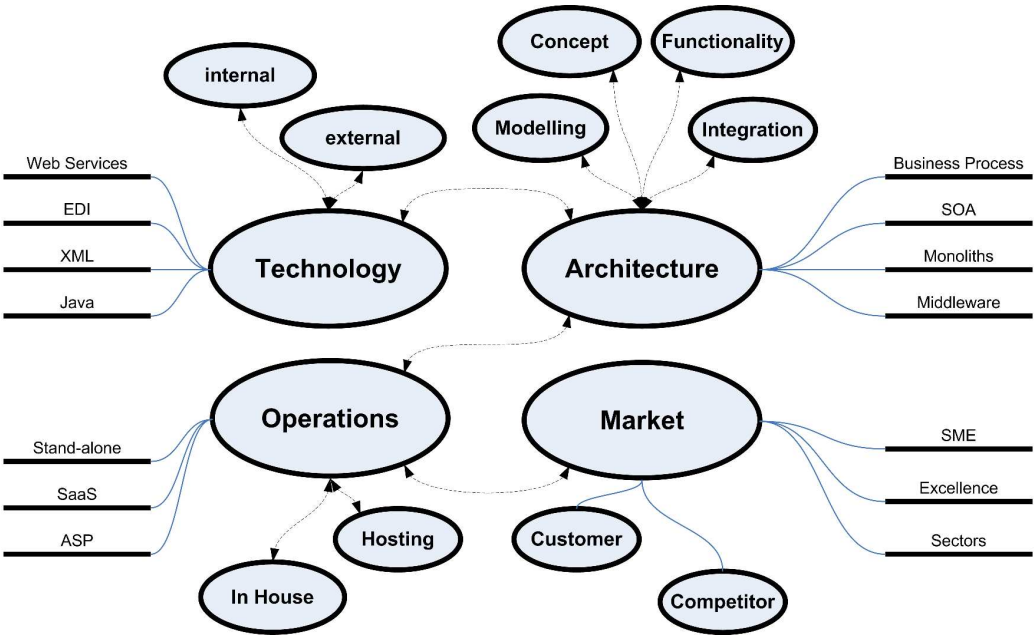

Figure 1: Theoretical model: the four main components of ERP systems

2.3 Definition and Dimensional Analysis

In the next step we defined the relevant concepts of the theoretical model (Architecture, Technology, Operation and Market) followed by a dimensional analysis (Mayer 2004, p. 32) which describes the sub-categories of the main components in more detail (e.g. for Architecture: SOA, monolithic, client-server etc.). Due to limitations in space the sub-categories will not be described further in this paper.

2.4 Qualitative Research

In order to identify new patterns and correlations between the aspects of our theoretical model we followed an explorative research approach. Following Mayer (2004) we interviewed industry experts (*ERP software providers)* in the German ERP market. We conducted 32 interviews with company representatives in 8 different roles: 7 CEOs, 6 marketing directors, 6 product manager, 5 sales manager, 3 software development manager, 3 project manager, 1 business development manager and 1 key account manager.

Every interview was preserved in a written transcript. Afterwards all transcripts were analysed using recommended techniques by Mühlfeld (1981) and Miles and Huberman (1994).

2.5 The Interview Guideline

Questions for the four aspects of the model were summarized into an interview guideline. The outline of the questions can be found in table 1.1 and table 1.2. The interviews were conducted with representatives (experts) in each company. Every interview partner represents an expert "who provides in his defined area of expertise pure and repeatable knowledge." (Mayer 2004, p. 40).

Main component	Detailed aspects of the component	
A1: Architecture	A1P1: Modelling	A1P2: Concept
	• **Do reference processes exist in graphic form in your system?*** • **If yes, are they used to generate code?*** • If yes, are these reference processes used with the customer? • **Are existing industry standards used? (e.g. Score, GS1, ...)?*** • Can business processes be adapted by the user?	• **Does the architecture follow a general concept?*** (e.g. SOA) and how is your client-server architecture designed? • Is the software platform independent? • Which middleware is used? • What is the applied technology in browser-based systems (e.g. Java, Ajax, …)
A2: Technology	A2P1: Internal usage	
	• Which operating systems and databases are supported by your system? • Which programming language was used and why? (C/C++, Java, ...) • Which application development system do you use? • What is your view on open source as a tool in your system?	
A3: Operations	A3P1: In-house	
	• Is your software customizable for several clients? • Who distributes your software? • Who maintains the software (support)?	
A4: Market	A4P1: Customer	
	• How many customers use your software? • How many users can use your system? • What distinguishes you from your competitors? • How much influence do customers have on the finished product? • How do you organize communication with the customer? (e.g. user groups, ...)	
* Questions in bold will be discussed in the findings, in the following chapter		

Table 1.1: The interview guideline, part 1

In the summer of 2007 the questions of the interview guideline were trialled in three pre-tests with selected ERP vendors in Germany and Switzerland in terms of completeness and length of the interviews and subsequently optimized regarding content and time-effectiveness. The questions were then used for the following interviews with selected ERP vendors. 17 interviews were conducted until December 2007, further 12 experts were interviewed in January and March. Overall, 130 ERP system vendors in Germany were invited for an interview of which 32 companies agreed to conduct an interview. This corresponds to a response rate of 24.6 %. All interviews were stored as written transcripts for later evaluation.

Research model aspects	Parts of the aspects	
A1: Architecture	A1P3: Functionality	A1P4: Integration
	• Which modules does your software cover? • Which modules can be obtained externally? • Are specialized modules such as CRM or BI integrated? • Do you use your own solutions for CRM/BI or are these bought in? (e.g. Cognos, Business Objects, ...) • Is there a release concept which allows customers to use individual adaptations in future releases?	• Is a connection to a third party system and respectively to an existing IT landscape possible, if yes, how (data/application level)? • Are there modules which are heavily interdependent (on each other)? • Is an authorization concept (both internal as well as external) important and if yes, how? (e.g. roles/functions)
A2: Technology	A2P2: External usage	
	• Which document standards does your system support in regard to external communication with other systems, (e.g. EDIFACT, ebXML,...) and do you use converters in this regard? • Are Web services used and if yes, how? • Regarding Web applications: Do you rather consider existing resources (native Web) or proprietary solutions for improved throughput?	
A3: Operations	A3P2: Hosting	
	• **Which operational models does your software support? (ASP, SaaS, stand-alone, ...)*** • In which ways and means are the functional areas (modules) of your system made available to the customers?	
A4: Market	A4P2: Competitor	
	• For which sectors is your product most suitable? (e.g. trade, manufacturing,…) • In which position in the software providers market do you regard yourself to be? • Do you regard open source software vendors as serious competition? If not, why? • How or where in the market do you see yourself in ten year's time? • How do you see the future of the market?	
* Questions in bold will be discussed in the findings in the following chapter		

Table 1.2: The interview guideline, part 2

2.6 Evaluation

The evaluation was based on an empirical content analysis (Kromrey 2002, p. 311). We applied the method suggested by Mühlfeld (1981, p. 334) to analyze the transcripts. First, every answer to the question was marked within the written text. In a second step, the answers were categorized according to a general scheme. After that the single pieces of information were combined logically so that similarities but also controversies could be discovered. The resulting text represented a first analysis from the interview guideline. In the next step it was enriched by selected citations expressed by the interview partners. In addition similar answers were summarized and evaluated based on the *Conceptually Ordered Display* approach by Miles and Huberman (1994). Instead of focusing on one interview we condensed the answers in a cross-case analysis. The results of these steps serve as the basis for the following discussion of the findings.

3 THE FUTURE PROMISE OF PACKAGED ERP SOFTWARE

Altogether, several important trends emerged from the interviews and the subsequent responses to the interview guideline. Due to the large amount of data (192 pages of transcript material – 6 per interview) this paper can only present some selected findings which we thought would be most interesting for an academic audience, namely (1) process orientation, (2) service orientation, (3) operational model, (4) market challenges, and (5) flexibility/agility. The complete study results can be found in (Frick 2008).

The following table contains information from the study referring to the bold questions in tables 1.1 and 1.2. The table shows the correlation between the available *capabilities of process modelling* and the discussed *architectural and operational model* of the vendors (table 2). The underlying assumption for the table is that both, the design and implementation of processes as well as service orientation enable a software package to be more flexible regarding changes (→ agility). The rows display the number of vendors who supply the user with ways of designing and implementing their individual processes into the software. This process goes beyond a mere customization of a packaged software solution. "Graphical processes" enable a dialogue between the implementation partner (the "consultant") and the future user (the "business expert"). With the help of graphical workflow engines, consultant and business expert can discuss the detailed steps of a business process (with its events and ramifications). This can help to form a common understanding of how the software should finally work. Examples for these kinds of ERP extensions are *event-driven supply chains* (Scheer & Habermann 2000) or *workflow modelling tools*.

The second row displays the number of vendors who can use these graphical models to actually generate ERP source code from them. Industry standards (third row) refer to the availability of pre-defined processes which are implemented into the ERP system, e.g. a typical pricing model for retail. The last row contains the vendors who offer all three options. The columns on the other hand indicate the correlation of process modelling (rows) with the underlying technical architecture and the possible mode of operation. The table reads as follows: 8 vendors whose systems follow a fully service-oriented approach are also able to provide graphical process modelling tools. 6 of these have the possibility to generate code from the graphical models. The same comparison is also drawn with the possibilities in the mode of operation. 7 vendors who are able to offer their *software as a service* are also able to supply graphical process modelling.

Flexibility in Processes and Services?	SOA	SOA-capable	SaaS	ASP
Graphical processes	8	5	7	5
Code generation	6	1	4	2
Industry standards	2	3	3	2
All Aspects	0	1	2	1

Table 2: Service-oriented systems start to fulfil their potential by utilizing processes

In the following section we discuss the implications of the table together with the qualitative remarks of the company representatives.

3.1 Process Orientation: Graphical Design Support

The first requirement for *continuous process support* (Liebhart 2007, p. 91), the visualisation of processes, can be fulfilled by some of the vendors (cf. table 2.1). According to Delen et al. (2005, p. 107) "the synergistic combination of descriptive graphical models created using enterprise modelling methods (…) can deliver substantial results." 50 % of the questioned software companies offer appropriate modelling possibilities, whether through connection of existing tools or by means of self-developed display methods. However, *it will remain at the stage of visualization (of business processes) for the next few years*. The next step, a coupling of process and application level in the framework of a process-driven code generation, is currently rarely implemented. Only 25 % of the vendors currently enable code generation from modelling. The offers range from workflow rules to whole class diagrams. *The lack of support for automatic process transformation will not be enhanced.* Complicated internal dependencies within an ERP system prevent building the needed program structure for supporting this feature. The software companies see no practical benefits in code generation, a procedure, which in their opinion, is simply impossible because of the internal dependence of an ERP system, as the following quote from a provider shows: *"ERP systems are too complex to make business process modelling worthwhile."* (Frick 2008) Furthermore, there is little support concerning a standardized view of processes. Only 25 % of the vendors currently support process standards. *Due to the need to provide fast and simple solutions for the customers it will be experience-based processes that are utilized in the future.*

3.2 Service Orientation: The Concept of "Service" in ERP Systems

Services have established themselves as an important or even central building block in the system conception. 53 % of questioned vendors stated that they have integrated services into their system architecture, whether as integral service-oriented architecture (SOA) (28 %) or just as a SOA capability (25 %). Primarily, their benefit is gained from the possibility of offering functionalities externally. The reasons for this lie partly in differing definitions of SOA, which are internally seen as propagated by large producers such as SAP, IBM or Microsoft and therein make a standard architectural basis difficult. On the other hand, such a consistent new conception means a reprogramming or even new programming of many system components. *The possibility of avoiding this expenditure and offering the required service by means of a service level agreement will be used more often in the coming years.* Although it may sound strange, an interview partner expressed it as follows: *"We can't **do** SOA, we **are** SOA."*

3.3 Operational Model: Hosting Solutions for ERP Systems

Solutions on a rental basis have, since their hype at the end of the 1990s, found their way back into the customer's awareness. SaaS has established itself as its own term for an operational model next to Application Service Providing (ASP) and will increasingly emerge as a possible solution from the software companies. Although SaaS is often equated with ASP, the differences between the earlier ASP (classical licence-based software is made available over the Internet to a customer) and SaaS (a software designed for Web use which serves several customers) are so clear that it can be defined as its own operational model. Although hosting solutions such as ASP (possible with 56.25 % of the products) or SaaS (possible with 31.25 % of the products) increasingly find their way into the offers of software companies, *the in-house variant remains the main pillar of the product range*. In addition, the technical possibility to host a system does not imply that vendors offer this service as operational functionality due to lack of customer trust. One vendor expressed the overall attitude towards hosting as operational model: *"We provide in-house, ASP and SaaS but neither ASP nor SaaS are desired by customers."*

3.4 Market Challenges for the Future

For the future, 12 providers estimate an advanced consolidation as most likely. In the eyes of the questioned companies, the development of the market seems to clearly indicate a decrease in the number of providers. Exactly which group this will affect seems to be controversial. The niche suppliers are convinced that their excellence in their particular sector will protect them from great competition because cross-sector systems do not have the depth of functions which their customers need: *"From our viewpoint the trend towards specialization in terms of sector-focus will continue further."* (vendor quote) 10 vendors forecast technological advancement as an influential factor for the market. Web-based architectures or fully modularized toolkits for building an ERP system are mentioned. Economical pressure by global players, in particular acquisitions by large providers like SAP or Oracle, is less eminent for the questioned vendors (7). So the statement concerning the ongoing consolidation does not necessarily imply a forceful buying strategy by global players that vendors are afraid of. Instead there is a general feeling that many vendors especially SMEs will perish during the process: *"There won't be several hundred vendors in five years time but only 20 to 30."* 5 vendors enhance this view by their comment towards a decreasing variety of systems in the market. Interestingly, there are only 5 system providers who focus on new operational models for differentiation despite the current obvious trend towards hosted solutions.

3.5 Flexibility of Processes and Services: Basis for Agile Enterprises

The already existing potential in Service Oriented Architectures (SOA) in conjunction with standardized process mapping (e.g. BPMN and BPEL) has, because of a lack of support from process modelling standards, not yet been exploited. A service orientation has already been implemented by 17 companies. In addition 13 of 17 vendors who use services in their system (internally and externally) do also have a graphical process representation. However, an orchestration of the services over and above the planning level is only possible to a very limited degree. Code generation is almost exclusively available for SOA based systems (7 of 8 vendors) so the infrastructure for combining processes with underlying services exists. Nevertheless the code which is currently produced is limited to specific code fragments (class diagrams, workflow rules, etc.).

The use of standards in process modelling is independent of the underlying architecture. Two vendors with a SOA and three with a SOA capability use industry standards. This means that the idea of a system which supports the ability to adapt to changed business processes will remain the exception in the coming years. The underlying architecture necessary to achieve such freedom and power of design would have to be component-oriented and also service-oriented up to current standards (Sprott 2000), so that the functionalities connected with the processes can, without any problem, be rearranged according to the restructuring carried out in the model. This will also help to meet increasing requirements regarding improved agility (Osterhout et al. 2006; Overby et al. 2006).

Based on these findings it is safe to assume that *the graphical representation of processes will be more likely in combination with service-oriented vendors*. The same conclusion is feasible for code generators that will be used within service-based scenarios. *The architectural support for these tools on the other hand will be limited to a few vendors*. The majority of vendors are not ready or able to rethink and rebuild their systems accordingly. When it comes to industry standards, service-oriented systems are more likely to include them. But without a common sense of well conceptualized and reusable process scenarios there will not be many systems in the future making use of standards.

4 CONCLUSIONS AND LIMITATIONS

Based on the results of our empirical study of the German speaking ERP market we discussed the aspects of process orientation, service orientation, operational model, market development, and

flexibility (agility) concerning future ERP software suites. We collected a large amount of data and decided to focus this paper on vendors whose systems are service-oriented and who offer hosting solutions for their ERP system. These vendors have, to some extent, already met the corresponding *technological and organizational requirements* for a flexible system that can cope with future technological and business-related challenges. However, in some areas there is still a clear need for development.

Process orientation is partly implemented in terms of a visual representation, it has not, however, come into its own yet as a standard organizational tool. Particularly in continuous process design and in the implementation of process standards there are still deficits requiring intensive further development. Modelling should not remain on the simple visual level but should, together with a service-oriented application system, allow for a reorganization of functions above the planning level. There are already corresponding approaches, although they are only used by a small proportion of the questioned companies. Additionally, there are standardized processes for cross-company process modelling for which implementation is lacking.

In the *service-oriented areas*, the necessary measures for a continuous application provision are to a large extent already implemented. Nevertheless, there are various aspects which still require further attention. SOA is still not clearly defined by all the companies questioned. However, the service idea is at least known of as a rough concept by all those questioned. Based on services, legacy systems can more easily be re-used, new modes of operations can be offered and acquisitions can be more easily integrated into the existing system. Nevertheless, a disciplined service administration is needed to ensure clarity, security etc., especially for large scale use.

Around one third of the companies see a progressive *market consolidation* happening in the future. This consolidation is likely to happen because of the growing pressure from global players such as SAP or Oracle who want to enter the SME market. Technological advancements as SOA and its possibility for simple application integration, or modern operational models as SaaS are contributing to the current market consolidation. Oracle alone acquired 41 companies within 48 months (Hill 2007). Some of the interviewees suggested a scenario in which some providers in the SME sector form so-called *ERP clusters* in order to arm themselves against the ever harder competition. For smaller ERP companies, it is reasonable to either secure a particular advantage in the market through niche excellence or to join forces and form a kind of "cluster" with other ERP companies in order to make a takeover unattractive: *"It will be more important to link with others in the future."* (vendor quote) New technologies can even accelerate this process, as the expansion of Web services in the context of SOA has shown. One vendor summarized it: *"As far the market goes, it's: evolution not revolution!"*

The paper presents selected aspects of a detailed analysis of the future requirements of ERP software in the German-speaking market based on an empirical study. We were confirmed in our belief that this topic still needs further research by the editors of the EJIS special issue on packaged software who stated: *"In summary, we believe there is a need to theorize about packaged software and its place within the field of information system."* (Light & Sawyer 2007) Combining qualitative with quantitative research aspects, we shed light on the research question of what future packaged ERP systems are going to look like. Our research has several limitations. Firstly, the discussion is focused on the German-speaking area and it is possible the results may differ in other countries due to cultural implications (Soh et al. 2000; Davison 2002). Secondly – although the return rates were very favourable – this study is subject to the usual constraints regarding statistical representativeness. 32 interviews with vendors can only reflect a small portion of the complete universe of German-speaking ERP users and vendors.

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