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The Role of Organizational Size

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Abstract

Cloud computing has become one of the fastest growing segments of the IT industry. In the wake of this, cloud based Enterprise Resource Planning (ERP) systems have emerged as an alternative to traditional ERPs. The marketing of cloud based ERPs states that adoption require low upfront investments and can rapidly be deployed, as they are provided over the cloud. In this study we seek to unravel cloud ERP adoption by identifying and classifying opportunities and concerns often associated with cloud ERPs with respect to organizational size. Our results show that SMEs, and in particular small companies, can best exploit cloud ERPs as many of the benefits are more relevant for them. At the same time, many of the concerns associated with cloud ERPs are not seen as important for SMEs. Large organizations on the other hand, have severe concerns related to size, in the form of complexity and specific demands. However, in the study we found that a hybrid solution, following a best-of-breed approach in which business critical and sensitive applications are kept on-premise, can allow large organizations to settle many of their concerns while at the same time enable them to gain some benefits of cloud computing.

1. Introduction

There has been a lot of hype about how cloud computing, and particularly Software as a Service (SaaS), is the wave of the future which will sweep and replace the traditional on-premise software delivery model [1]. This hype is supported by the remarkable acceptance and success that cloud computing has received over the last years. Cloud computing has seen the size of its industry to expand from $17.3 billion to a forecast of $43.2 billion in 2012 [2]. Furthermore, cloud computing is predicted to play an increasingly important role for businesses in the future [3-6].

This hype is supported by the fact that companies are continuously searching for ways to reduce costs and operate more efficiently in order to remain competitive in their markets and information technology (IT) can help them achieve these goals [7]. As a consequence of the 2008-2009 financial crisis, companies are looking for new ways to consolidate their IT infrastructures and services and increase their return of investment [8].

Enterprise Resource Planning systems (ERPs) have historically been implemented as on-premise commercial off-the-shelf software (COTS), but now also this kind of systems seems to be attractive for the cloud computing delivery model. ERPs constitute the basic information systems software in a modern business environment as well as the typical model of computing in an organization [9]. These systems offer a way to efficiently plan and manage the resources of an entire company through the integration of its information and information-based processes across functional areas as well as beyond the organizational boundaries [10, 11]. The benefits of adopting an ERP include for example; cost reduction, better customer service, improved productivity, better quality, enhanced resource management, better planning and decision making and organization empowerment [11].

It is for the above reasons that almost every large company worldwide has adopted an ERP system, while even Small and Medium Enterprises (SMEs) are increasingly implementing such software solutions in order to compete on the market and

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achieve cost reductions [10, 12]. At the same time, an ERP system is the most risky, time consuming and costly IT investment that a company ever makes [5]. ERPs are software packages that are sold in modules, and a company does not need to implement every module, however more modules result hopefully in greater integration and return on investment. As companies are looking to reduce costs and consolidate their IT infrastructures, cloud computing appears to have become an attractive option [8]. In this research we followed the European Commission [13] definition of SMEs, which state that a SME is up to 250 employees.

Following the success of cloud computing, the new cloud-based delivery model of ERP has emerged. These ERP solutions are marketed to offer similar functionality as their on-premise counterparts, but the infrastructure (software, computational power, hardware etc.) is provided on-demand by the vendors in a pay-per use model [14]. As with cloud computing, this new ERP delivery model gains success and it increasingly growing its market share. Most companies at least consider a cloud-ERP solution and this trend was illustrated by a 2012 survey conducted by Oracle where approximately 70 per cent of the CFOs stated that they would consider using a Cloud-based version of their ERP [15]. Panorama's 2012 ERP Report quantifies the momentum of cloud-ERPs as it revealed that the market share of cloud-based ERP systems has grown from 6 percent to 18 percent just in one year, from 2011 to 2012 (Panorama Consulting). As the market moves to a cloud environment, traditional ERP providers are also forced to develop their own cloud based solutions, otherwise they risk losing market shares to the emerging Cloud ERP software vendors such as Netsuite and Plex [14, 16]. From the presentation so far it can be suggested that adoption of ERP system is of a focus for SMEs. It can also be concluded that the cloud ERP version seems to be a delivery model that at least SMEs could benefit from. But there exists counterarguments that suggest that cloud ERP is mainly for large organizations. All this indicates that a question that still appears to lack a clear answer is whether cloud ERP is a viable solution for companies independent of organizational size. This question is the focuses of this paper in which we explore the role organizational size have on cloud ERP adoption.

The rest of the paper is organized as follows: in the next section we present as a background for the study what is known about cloud ERP adoption in relation to organizational size. The section after that presents how the research was done and the research framework that guided the analysis of collected empirical data. Section 4 then presents the results from the analysis of cloud ERP adoption opportunities and concerns in relation to size of organization. The final section then presents some conclusions and reflections as well as future research directions.

2. What do we know about Cloud ERP adoption and organizational size?

As introduced in the introduction cloud computing as a delivery model for software is getting more and more attention. An indicative example is the 2012 survey conducted by Gartner and Financial Executives Research Foundation, where 53 percent of the surveyed CFOs seemed to believe that over 50 percent of their company's transactions will be delivered through the cloud over the next four years, as compared to the respective 12 percent which is currently the case [15]. Major software providers such as Microsoft, Oracle and IBM have noticed this trend and are now offering hosted versions of their products while other more established vendors such as SAP along with newly emerged SaaS providers offer innovative cloud-based offerings [16, 17]

In the field of IT there are no one-size-fits-all solutions, as every company makes its decisions on what IT systems to use based on certain criteria, such as available resources to invest, specific functional requirements that the system should serve, existent IT infrastructure, Total Cost of Ownership (TCO), return on investment and delivery options for the company [18]. This axiom also applies to the case of cloud ERPs, as we see that the existing literature indicates that their adoption is not homogenous across SMEs and large corporations and there is a discussion about the organizational size of the adopters [18]. Gartner [19] and McKinsey [20] argue that cloud ERPs comprise a viable solution only for SMEs and Arnesen [1] strengthens this assumption arguing that the majority of the current cloud ERP adopters are SMEs. However, Arnesen [1] adds that large companies also recognize and appreciate the advantages of cloud ERPs, such as the IT efficiency and business agility that cloud computing provides, and increasingly move their mission-critical enterprise systems to the cloud. On the other hand, Benlian et al [4] argued that there is no correlation between the size of the company and the perceived advantages of the SaaS delivery model.

These conflicting arguments raise questions on the extent of relevance of cloud ERP to companies of different organizational size. This uncertainty is further nurtured by the fact that most researchers [1,

5, 18, 21] who have discussed the issue of cloud ERP adoption, have merely focused on dealing with opportunities and concerns of its use in general, without analyzing them based on the different characteristics that the influential factor of organizational size can shape. There are also a number of authors [14, 22-25] who discuss cloud ERP adoption only from the standpoint of SMEs, analyzing factors which affect their decision making of whether to move their ERP to the cloud or not. Thus, there is a gap in the extant literature, as there is hardly any research which deals with large companies in order to explore the factors that comprise positive influence to go for a cloud solution but also those that act as inhibitors of migrating to the cloud.

Another noteworthy fact is that despite the focus that researchers have put on exploring the cloud phenomenon in relation to SMEs, a recent research by Opinion Matters for internet security company AVG Technologies showed that almost a third of the SMEs surveyed responded that they "do not get it" [26]. More specifically, out of the 505 small and medium companies based in UK surveyed, 31 percent responded that they do not understand cloud computing and the implications of its potential usage in their company. Yet, the most interesting statistic was that 22 percent responded that they believe that the cloud software delivery model is appropriate only for large companies. These findings demonstrate that even SMEs, which are heralded as the main cloud ERP adopters, express a limited understanding of the cloud offerings and limitations as well as that there is a confusion about what kind of organizations are more suitable for adopting a cloud solution.

Taking into consideration on the one hand the fact that the diffusion of cloud ERP is still in its infancy and the market is immature [27] and on the other hand that cloud ERP is a constantly changing area, as cloud providers constantly provide new functionality to their offering improving its characteristics and addressing previous shortcomings [1], we argue that there is a need for a study, which will not only take into account all the latest changes that could affect cloud ERP adoption, but also will focus on the exploration and analysis of its adoption from the standpoint of both SMEs and large companies. Thus, the primary goal of our study is to gain a deeper understanding of the opportunities and concerns regarding cloud ERP adoption for both SMEs and large companies. Consequently, the research question which will drive this study will be the following: What are the main opportunities and concerns for SMEs and large companies regarding cloud ERPs?

According to Benlian et al. [4], IT executives weigh the potential opportunities and risks that would emerge from SaaS adoption. The result of this process is an overall attitudinal appraisal of SaaS adoption, which influences IT executives' intentions to adopt SaaS applications. In line with Benlian et al. [4] we will further attempt to weigh the overall perceived opportunities and overall perceived concerns that are ascribed to SMEs and large companies, so as to foreshadow their intention to adopt a cloud ERP and thus give indications on if cloud ERP is a viable solution for companies of all sizes?

3. Research Method

The starting point of the research was the impression gained from both existing literature as well as different reports stating that cloud ERP is suitable for all organizational sizes or cloud ERP only fits SMEs and cloud ERP is mainly for large organizations (see section 1 and 2). To further expand this we conducted an extensive literature study in which we gathered the opportunities and concerns regarding cloud computing and cloud ERPs as found in previous research and other sources. For our research framework we then compiled these opportunities and concerns, which later were used as a point of reference for the analysis of the empirical findings. The research framework which is a compilation of opportunities and concerns found in the literature review is shown in Table 1 (due to page limits the whole list of references is available from the authors if requested).

Due to the complex nature of our inquiry, which requires deep understanding of the problem area, we decided to utilize qualitative semi-structured expert interviews for collecting our empirical data. This gave us the opportunity to ask a set of predefined open-ended questions regarding each theme to which the respondents could give open answers [28, 29]. This approach being flexible, meaning we did not need to follow the interview guide strictly, allowed us to change the order of the questions, to critically follow-up on respondent's answers, to ask for clarification and further probe and inquire through additional questions. We could therefore keep the interviews open without losing control or direction of the interview [29].

Table 1 Research framework

Opportunities	Concerns
Lower upfront costs	Security
Lower operating costs	Vendor lock-in
Transparency of TCO - enhanced financial image	Performance
Lower TCO	Limited customization
Availability	In-house resistance to change
Scalability- Flexibility	Resistance to change from traditional ERP vendors
Fast deployment	Jurisdiction limitations
Integration with other systems and services	
Access to leading technologies and skills	
Business focus	
Always on the latest software release	
Accessibility – ease of use	

After receiving respondents' approval, interviews were recorded in order to ensure that we did not miss anything the respondents said. The interviews followed a guide that was inspired by the themes developed in the research framework. However, we did not ask specific questions regarding each identified factor as this could lead the respondent to a certain direction. Instead, we let respondents themselves come up with what they regard as crucial or less crucial opportunities and concerns before we match the responses with the identified factors in the literature review. Our interview guide is thus designed to contain questions that are very open-ended with the aim of acquiring comprehensive responses.

When it comes to the selection of respondents as sources for our empirical data, we selected professionals who work in companies which are both part of the ERP industry, working for ERP vendors, and possess an extensive knowledge set about SaaS and cloud ERP. Since we research the topic of cloud ERP and factors that affect the decision making of businesses towards cloud ERP adoption, we therefore tried to find vendors in order to gather their views and insights as they are the specialists in the subject. The interviewed experts have many years of experience of interaction with a variety of companies of different sizes and industries and thus they know many of their concerns and motivations. Based on their experience, they can also reflect about the special characteristics of cloud ERPs and their suitability for various companies. The selected vendors operate on a multinational level with offices in more than one country. The scope of the study and

its produced outcomes are therefore general and applicable in many parts of the world. Finally, the respondents have different roles in their companies, something that proves to be very useful for the acquisition of a more spherical perception of the topic with a variety of constructive ideas and insights. Table 2 provides an overview of the different interviews conducted.

Table 2 Overview of conducted interviews

ID	Company	Position of Respondent	Business Location	Duration
1	SoftOne	Director of International Business Development	Multinational	85min
2	SoftOne	Marketing Director	Multinational	91min
3	IAS	R&D Manager	Multinational	53min
4	Confidential	Partner Account Manager	Multinational	65min

ERP vendors were chosen as a source of empirical data for a number of reasons. Another approach could have been to collect data directly from SMEs and large companies that have considered or already adopted a cloud ERP. However, in order to gain empirical data with the same coverage, we would have needed to collect data from numerous companies, of all sizes and from different industries. In addition, it would have required vast amounts of time and effort to find enough eligible respondent-companies, as cloud ERP is an emerging technology that still is neither very well-known nor widely adopted. For these reasons, we therefore turned to ERP vendors as viable alternative sources of empirical data since they have the experience of dealing with many different types of customers and therefore can, from their experience, inform us of the main opportunities and concerns their customers associate with cloud ERPs. At the same time, this made the study more manageable, as we got access to rich data on opportunities and concerns related to cloud ERPs. However, we had to accept that vendors not necessarily know all of the opportunities and concerns, or the reasons behind them, that companies attribute to cloud ERPs and that there is a possibility of bias depending on the vendor's and particular respondent's standpoint towards cloud ERPs. Still, we believe that ERP vendors were good ambassadors for the customers who consider or already have adopted a cloud ERP.

The analysis of the data aimed at systematically and thoroughly search through unrefined data to find distinct elements and patterns of data that can be

isolated and categorized as well as to be compared to findings from the literature review. It started with the transcription process directly after having conducted each interview. Consequently, it was realized while the interview was still fresh in our mind, which contributed to a higher level of accuracy increasing its quality. In addition, such a fast acting strategy allowed us to spend more time on the analysis process in order to produce valuable outcomes. The analyzed interviews were sent back to the subjects, so they could have the opportunity to comment on the analyzed text and elaborate on their initial statements as well as provide useful feedback. In their work, Kvale and Brinkmann [29] support that the method for data analysis should be determined in an early phase, even before the data collection phase, as potential delays can slow down the research considerably. Following this advice, we decided to apply Denscombe's [30] guideline consisting of three steps in order to facilitate our analysis process: 1) Data Coding, 2) Data Categorization and 3) Concepts Production. The different steps will be briefly discussed below.

Data Coding, the initial step involves coding words and statements from the collected data [30]. Following this we gathered and marked useful opinions and statements made by our respondents in the transcribed texts. In case we found matching or similar opinions between the respondents we marked them with a tag in order to recognize and distinguish their association.

Data Categorization, as the second step involves the categorization the recurring tagged opinions [30]. We created categories based on the recurring opinions and we analyzed them, stating thoroughly each respondent's ideas on the matter as well as contrasting and comparing them. In a sense, we also confirmed the data that we found and collected through the literature review. However, at this stage, we did not contrast the collected data with literature findings.

Concept Production, which according to Denscombe [30], is the goal of the two previous steps, coding and categorization, with the aim of producing an overall concept that can contribute in explaining a phenomenon, which in our research study is a framework that can help compare opportunities and concerns of cloud ERPs in SMEs and large companies. After we prepared and articulated the final framework we could then contrast and compare it with the opportunities and concerns found in the literature review (see Table 1). In our case, we created the framework with different opportunities and concerns, which affect ERP adoption with regard to SMEs and large enterprises.

In that way we facilitated the next phase of our study that compares the empirical findings with those of previous research.

4. Results from the analysis of the role of organizational size on cloud ERP adoption

From the analysis on cloud ERP adoption on behalf of both SMEs and large companies through the combination of the empirical findings from our expert interviews with IT professionals and our study of the extant, relevant literature, we were able to develop the framework shown in Figure 1.

Figure 1 demonstrates the findings of our analysis of empirical findings with respect to the relevant literature. It represents a framework that depicts how SMEs and large companies relate to the opportunities and concerns identified in the interviews that cloud ERP adoption raises.

The question marks in the figure indicates that we are unsure about the relevance, while the – mark indicate that we could not find any discussion on the specific concept in relation to the specific question about size at all.
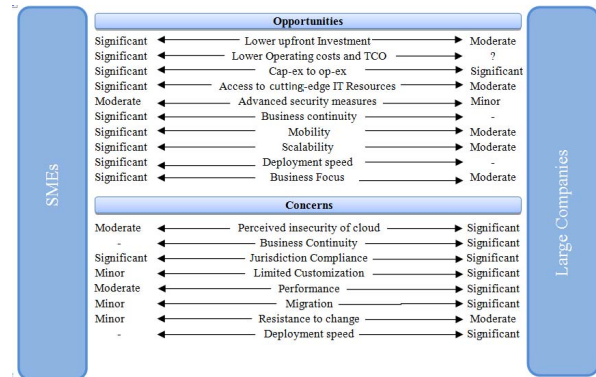

Fig. 1. Opportunities and concerns relevance in the context of company size

From the framework, it can for instance, be concluded that the special characteristics of a company (e.g. geographical dispersion of its activities, seasonality), as well as other external factors (e.g. country and industry where it bestirs itself) can significantly influence the way the respective company would evaluate its potential adoption of a cloud ERP instead of a conventional on-premise ERP. Nevertheless, the analysis results showed clearly that small and mid-market companies can exploit in a significantly greater extent than large companies the opportunities that cloud ERP adoption raises. Simultaneously, SMEs are related to a lesser

degree to the existing concerns of moving core enterprise applications to the cloud than large corporations do.

Our analysis showed that it is the small and mid-sized companies that are most well-suited to benefit from a cloud ERP implementation. We found that SMEs and especially start-ups and small companies, which typically lack the financial resources to build a comprehensive on-premise ERP, highly appreciate the modest capital investment required upfront for the implementation of a cloud-based system. In addition, long term costs of a cloud ERP are considered to be quite lower for SMEs, allowing them to reduce their overall IT expenditure. On the contrary, the pay-per-use model of the cloud may be proved detrimental for large companies in the long run, due to expensive fees paid, as a result of their large ERP user-base and number of ERP modules used.

Moreover, the opportunity of scalability was discussed both as an economic and a strategic benefit for SMEs, which enables them to adapt rapidly and with minimal cost to the dynamically changing needs of the market and thus to compete more efficiently with other organizations. In the meantime, utilization of scalable resources of the cloud for certain processes was merely discussed in the sense of a cost benefit for large companies and especially for those with seasonal business models. Cloud ERPs offer access to state of the art infrastructure, IT expertise and mobility of service in a viable payment model for SMEs, which usually do not have the resources to absorb the cost for their deployment and maintenance in-house, as opposed to large companies. In addition, the ability for a SME through a cloud ERP to focus all its available resources on the essential areas of business and not on IT maintenance and operation was identified not only as a major opportunity but also as a necessity so as to enhance its competitiveness. Finally, the op-ex model of the cloud was found to enable all companies to make their IT costs transparent and enhance their financial image.

Our analysis also discussed a number of concerns cloud ERP implementation and utilization raise. We found out that companies feel extremely insecure to store their sensitive data on the cloud and allow cloud vendors to control and process them. Since the risk of a potential security breach as well as the potential damage caused by that is higher for large organizations, they are even more unwilling to move their critical enterprise applications to a public cloud in relation to SMEs. In addition, as large companies most likely have the resources to implement and maintain themselves high security standards for their in-house ERPs, they prefer to opt for the on-premise

model. However, it has to be mentioned that, at the moment, many cloud providers offer so high security levels for their services that SMEs cannot implement themselves and consequently they could take advantage of. Moreover, the concern of deficient performance of the cloud ERP due to potentially limited speed and reliability of the network as well as due to the extent of the technological proficiency of the software per se, was also identified as a major concern for companies which demand flawless performance for their "heavy" applications and systems. Nevertheless, since the performance typically decreases as the number of ERP users and the amount of data they transfer and process over the internet increases, the concern of problematic performance seems to be more evident for large organizations. Furthermore, limited customization ability of cloud ERP as well as confined integration ability with complex legacy systems, were identified as major concerns which are however particularly relevant to large organizations that are more likely to have such needs. On the contrary, SMEs typically do not have such needs and thus are well-suited to exploit the best practices cloud ERPs support.

Best practices of cloud ERPs and immediate access to infrastructure and software were discussed as factors which result in the fast deployment of cloud-based solutions. However, we found that mostly SMEs can reap this opportunity, as the numerous specifications of the processes of large organizations as well as the need to integrate with complex legacy systems, as described above, would require huge change management, which in turn could make potential migration to a cloud-based system an extremely time consuming, costly and dangerous task. Thus, the business continuity of a large organization seems to be severely threatened by a potential adoption of a cloud ERP. On the contrary, SMEs which typically have less and simpler activities can fast deploy and utilize a constantly maintained and updated by the vendor cloud ERP solution, who can also guarantee its optimal use, ensuring their business continuity.

Moreover, a highly competent and structured IT department, which most large organizations possess and have heavily invested in, as opposed to SMEs as some of which do not even employ IT professionals, would strongly resist to the outsourcing of their core objective, which is the proper management and maintenance of the in-house ERP system. Furthermore, jurisdiction compliance was identified as a country-specific concern, which all companies should be aware of and ensure that does not affect them in a negative way.

5. Discussing the role of organizational size in cloud ERP adoption

Until now, research as well as business reports have largely focused on SMEs when it comes to cloud ERPs. At the same time, there have been mixed messages as to whether large companies can benefit from adopting a cloud ERP solution. From this, we realized that there is a need to investigate the differences in how SMEs and large companies perceive opportunities and concerns related to cloud ERP adoption. For this purpose we explored what role organizational size has in cloud ERP adoption and aimed at answering the research question: whether cloud ERP is a viable solution for companies independent of organizational size?

Accordingly, this study has established a set of opportunities and concerns that cloud ERP adoption raises from the standpoint of SMEs and large companies. The analysis of these opportunities and concerns as influential factors, with respect to the extant literature and empirical findings from semi-structured interviews with four IT professionals, indicated that different factors hold different levels of importance with relation to SMEs and large companies.

Our analysis demonstrated that SMEs can extensively exploit the opportunities that cloud ERP adoption emerges. By moving their core enterprise applications to the cloud, especially small but also medium sized companies can significantly reduce their IT costs. However, cloud-based ERP could not make financial sense to large companies, as their large number of ERP users could result in expensive subscription fees, which could be proved in the long run to be more costly than implementing and maintaining an on-premise ERP system. Furthermore, SMEs are most well-suited to reap organizational benefits, such as enhanced focus on core business tasks and business continuity. Simultaneously, they can achieve strategic benefits, such as rapid response to business-level volatility and access to advanced technology in a viable payment model, which finally help them to be more competitive.

Meanwhile, the identified concerns of cloud ERP adoption may be considered less important for SMEs, while some of them could be extremely dangerous for the business continuity of large companies. The perceived insecurity of storing sensitive data to the cloud could not only be lessened but also turn out to be an advantage for SMEs, as companies will increasingly learn that reputable cloud vendors can actually provide exceptionally high security measures, surely higher than those SMEs could

implement by themselves. At the same time, the conservative mentality that dominates large companies, the detrimental consequences of a potential security breach as well as their capacity to implement and maintain excellent security measures for their on-premises systems, advocate for keeping their sensitive data in-house.

Moreover, SMEs typically demand less than what large companies do from their ERP from the standpoint of complexity of supported processes, amount of data transferred and processed and functionality of the software. Consequently, the concern of problematic performance turns out to be significantly weaker for SMEs, whose needs could be more easily and effectively accommodated by best-practices of a cloud ERP and a detailed SLA with a satisfactory uptime guarantee provided by a reliable cloud vendor. Furthermore, cloud ERP limited customizability was found to afflict heavily large companies, which are more likely to use "heavy" ERP modules, such as manufacturing or supply chain management, which usually demand customized, narrow industry-specific functionality and real-time integration with machinery and other complex legacy systems.

The findings of our analysis, as illustrated in figure 1, gave us the confidence to discuss if cloud ERP is a viable solution for companies of all sizes?

Thus, we argue that SMEs are most well-suited to move the total of their core enterprise applications to the cloud, adopting a cloud-based ERP, as been suggested in previous research. The selection of a cloud ERP offers to SMEs a wide range of advantages, while their emergent concerns could be in most cases relieved by a reliable, robust cloud vendor. On the contrary, a complete transition to the cloud model might not be a viable option for large companies. The extensive need for customization and seamless operation of certain, resource-demanding processes of large companies, may not be able to be accommodated by limited customizability margins and functionality that most cloud ERP solutions offer up to date. In addition security and reliability issues of the cloud are more prominent among decision-makers of large companies, making them to reject the option to move their mission-critical application and data to the cloud.

A hybrid solution, where the most critical and resource-demanding modules are kept on-premise or hosted in a private, single-tenant cloud, while less critical ones are deployed on a public cloud, were identified in our study as the most appropriate solution for large companies as well as were projected by our respondents to be increasingly used in the future. Contrariwise, SMEs are anticipated to

be increasingly prone to adopt fully cloud-based solutions, as awareness of implications of cloud ERP will increase.

6. Conclusions and future research

In this study, we have explored the role of organizational size in cloud ERP adoption. For this purpose we have collected empirical data by conducting experts' interviews with ERP vendors that offer or are about to offer cloud-based ERP solutions.

The main conclusion from our study is that at the moment is cloud ERP not the obvious solution for organizations of all sizes. Instead it can be concluded that the number of ERP users in the organization and how sensitive the data existing in the organization is a crucial aspect. It can also be said that cloud ERP adoption, if the organization should adopt or not depends to a high extent on the integration with other system and how advanced the usage of ERP is in the organization. All this are less or more connected to the major opportunity influencing cloud ERP adoption among SMEs which are related to questions about cost and financial resources. It was found that the main driver for SMEs is the modest capital investment required upfront for implementing cloud ERPs. The main identified concerns among SMEs were related to jurisdiction compliance and security issues. This was also found as being the same situation for the large organizations, however, they were even more concerned about security issues. The main identified concern for not adopting cloud ERP among large organizations was the perceived insecurity of cloud ERP.

Regarding the main conclusion on the question related to differences between organizational size and cloud ERP adoption. It was found that SMEs is seen as being much more positive about opportunities and a bit less skeptical about identified concerns. The large organizations on the other hand were seen as being more skeptical about opportunities and more concerned about the identified negative concerns. From this it can be concluded that large organizations are more resistant about adopting cloud ERP soultions.

The research area of cloud ERPs still requires further exploration. When it comes to the implications of cloud ERPs, much of the existing research has addressed cloud ERPs in a general manner or focused on SMEs and not really investigated whether and how companies of different sizes relate to these implications. In this regard, we feel that we have at least begun to fill this gap.

However, for reasons stated above, more extensive research which would draw upon data collected directly from SMEs and large companies is needed, in order to acquire more in-depth results.

During our interviews, we have received hints from our respondents about potential future research concerning cloud ERPs. It was implied by respondents that a separation between small and medium sized enterprises is necessary, as they relate differently to several of the opportunities and concerns discussed. This is not surprising, as companies consisting of 10 employees and the ones consisting of 200+ employees are likely in different situations, having very different needs as well as resources. Future research can therefore address this issue by comparing how small and medium sized companies perceive cloud ERPs and explore the reasons for any differences, but, also how different characteristics of the organization, such as for instance number of ERP users influences an adoption decision on cloud ERP. Another thing that has been hinted by respondents is that companies operating in different industries or markets perceive some of the opportunities and concerns differently. Thus future research could also explore and compare the value of cloud ERPs for companies which bestir themselves in different industries and countries.

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