ERP systems are more and more adopted in large companies. It appears that this trend is also being followed by small- and medium-sized companies. We have conducted a questionnaire-based survey to identify how Swiss SMEs perceive this phenomenon. The sample size is 687 of which 125 have actually implemented an ERP. Our main findings are twofold. First, SMEs that have not implemented an ERP invoke concerns (e.g., costs), which are typically not perceived as major problems by SMEs that actually went through an ERP implementation. Indeed the latter companies generally acknowledge that, ultimately, benefits significantly exceed the costs and difficulties of implementation. Second, this survey brings out new empirical knowledge of the satisfaction and benefits derived from the implementation and utilization of ERP systems in Swiss SMEs.

Keywords: enterprise resource planning systems; satisfaction; small to medium sized enterprises (SMEs); survey research

ABSTRACT

ERP systems are more and more adopted in large companies. It appears that this trend is also being followed by small- and medium-sized companies. We have conducted a questionnaire-based survey to identify how Swiss SMEs perceive this phenomenon. The sample size is 687 of which 125 have actually implemented an ERP. Our main findings are twofold. First, SMEs that have not implemented an ERP invoke concerns (e.g., costs), which are typically not perceived as major problems by SMEs that actually went through an ERP implementation. Indeed the latter companies generally acknowledge that, ultimately, benefits significantly exceed the costs and difficulties of implementation. Second, this survey brings out new empirical knowledge of the satisfaction and benefits derived from the implementation and utilization of ERP systems in Swiss SMEs.

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INTRODUCTION

Since the late 1990s, the vendors of integrated management tools, also called ERPs (Enterprise Resource Planning), are facing a saturation of their main market, which essentially comprises large companies. To find new customers, they are now selling their products to the “mid-market” (companies from 100 to 500 persons) represented partially by small and medium enterprises (SMEs). It seems, however, that few SMEs have actually implemented an ERP (which is confirmed by the present survey).

We conducted a questionnaire-based survey to study the level of implementation and of use of ERP systems in Swiss SMEs. To our knowledge, this is the first study of this type to have been conducted in Switzerland. The originality of this work also lies in the qualitative aspects addressed in the questionnaire such as the value added provided by ERP systems in terms of satisfaction, as well as the managerial difficulties encountered when implementing and using ERP systems.
We learn, for instance, that the main difficulties encountered during the implementation phase relate to the “complexity” of these systems. In terms of difficulty of use, companies cite above all “resistance to change” and “lack of training.” Satisfaction regarding expectations of benefits does not differ significantly between small- and medium-sized companies nor does it differ between types of industry. On the other hand, even though the findings suggest that size does not affect perceptions of satisfaction, companies belonging to a group had generally been required by their headquarters to adopt their ERP (i.e., they did not freely choose to do so).

In this article, we provide findings in the form of summarized descriptive statistics and hypothesis testing. For the hypothesis testing section, we solely focus on the satisfaction perceived by ERP users. All information gathered in the questionnaire relating to cost is voluntarily omitted because of this article’s focus on satisfaction issues. The article is organized as follows. First, we present a literature review related to managerial implications of ERP systems in companies. Second, we briefly present the questionnaire and the sampling strategy. Third, we present the main descriptive statistics obtained from the survey. Fourth, we test hypotheses related to the theme retained for this article: the satisfaction of the companies having implemented an ERP. In conclusion, we indicate the limitations of this study and directions for future research.

**LITERATURE REVIEW**

Shehab et al. (2004), present a substantial review of the research literature between 1990 and 2003. First of all, they present an overview of ERP systems and of their evolution. They then explain the nature of the ERP market. There were more than a hundred providers worldwide in 2001. Of these, only five of the ERP software vendors of the era accounted for roughly 70% of the market share (SAP, Oracle, JD Edwards, PeopleSoft and Baan). The authors also compare papers in the field of ERP selection criteria. In Klaus et al. (2000), the difficulties of coming up with a single definition of ERP are explained. The authors point out the diversity of points of view of academic experts and outline that “ERP is not a term referring to a distinct object but rather a category (…) [or] a range of similar products.” They show that ERP does not only focus on resources but, also on business processes and they reveal terminology deficiencies. The authors finally conduct a historical analysis of manufacturing resource planning (MRPII) and ERP. They conclude that ERP-related concepts are complex and that we are yet to provide a comprehensive definition.

In Verville, Bernadas, and Halingten (2005), ten critical factors to the successful outcome of acquiring an ERP system are identified. The factors that stand out the most are the following: “clear and unambiguous authority, a structured, rigorous and user driven process, its planning, the establishment of criteria and the sense of partnership that the team works to establish not only with various user commitments, but also with potential vendor.” They believe that success of acquisition depends on the combination of several critical factors.

A new and dynamic model of ERP success factors that should improve implementation strategies are presented by King and Burgess (2006). They point out the relationships between critical successes factors such as: organizational context, supporters, project organization and outcomes.

Ewusi-Mensah (2003) analyses software development failures that cost organizations billions of dollars. The author reveals that one-third of all software developments fail. He points out that it is generally the largest and most complex projects that fail. Clear and realistic goals and team expertise are also crucial to the success of these projects.

Amoako-Gyampah (2004) compares the perceptions of managers and end-users on selected implementation factors. By understanding these differences of perception, he proposes interventions such as training and communication that can help implementation success.
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