Accounting and the ERP Systems: 
A Case Study

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ABSTRACT

This article has the following specific objectives: to identify the reasons for implementing SAP ERP; to identify the main benefits and problems resulting from its adoption; to understand in what way accounting is integrated in SAP ERP; to analyse how SAP ERP influences the accountants’ role. The chosen method of investigation was the descriptive case study, with recourse to various sources of data collection. These were: semi-structured interviews as the main method of data collection; direct observation; and document collection. This article’s main contributions are the following: the resistance to change phenomenon, suggested by theory as a major problem in ERPs implementation, was not found; SAP ERP does not allow all of the accounting objectives to be achieved, making the use additional software a necessity due to its lack of flexibility and the need for specialized technicians when any changes have to be made.

KEYWORDS

Accountant Role, Accountant Tasks, Accounting, Case Study, ERP, SAP ERP, Service Organization, Software

INTRODUCTION

This article proposes, as a general goal, to further the knowledge regarding the interface between ERP systems and accounting in current organizations. As specific objectives we have defined the following: to identify the reasons for implementing SAP ERP; to identify the main benefits and problems resulting from its adoption; to understand in what way accounting is integrated in SAP ERP; to analyse how SAP ERP influences the accountants’ role.

The relevance of the subject is fundamentally justified by three factors. Firstly, because the Granlund study (2011) concluded that research in accounting should include the information technologies (IT), since they have nowadays an important role in its development. Secondly, because there are studies suggesting that change in the accountants’ job is related with the implementation of ERP systems, although there is little knowledge about how this happens (Wagner, Moll & Newell, 2011; Grabski, Leech & Schmidt., 2011; Machado, 2016). Thirdly, because many authors argue that new case studies are necessary to increase what we know about the impact of ERPs in accounting (Scapens & Jazayeri, 2003; Grabski et al., 2011).

The research method chosen, in order to achieve the objectives described above, was the descriptive case study, and we used various sources of data collection: semi-structured interviews as the main method of data collection; direct observation; and document collection. To ensure the credibility of the study we carried out four tests recommended by Yin (2009) to ensure the validity and reliability of the data – internal validity, avoiding the legitimacy problem when inferring from the data or making deductions; and external validity of the case, by comparing its results with the results of similar researches.

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LITERATURE REVIEW

In the mid-1990s, new hardware and software technologies began to emerge, providing companies with the ability to take advantage of systems that interconnected the whole organization and all its business (Cooper & Kaplan, 1998). These systems, formerly called Enterprise-Wide Systems (EWS), are today best known as Enterprise Resource Planning (ERP) systems, which can be defined as software packages that allow the full integration of the information generated and processed within the companies (Davenport, 1998; Ghosh, Yoon, & Fustos, 2013). These systems are organized in different modules, and integrate all corporate information in a single central database (Dechow & Mouritsen, 2005), managing to cover activities from areas as diverse as finance, accounting, human resources, logistics, production, quality, sales, projects, maintenance and marketing (Davenport, 1998). Several researchers argue that databases are indispensable for the management of today’s organizations (Azaiiez & Akaichi, 2016; Ramos et al., 2017). The operating process of ERP systems is summed up by the existence of a database, that collects and feeds these data into applications organized by modules supporting most of the company’s activities. As new information is entered into the system, all related information is automatically updated (Davenport, 1998). The success of this kind of software has been exponential, and during the 90s still has turned the famous German company SAP (Systems, Applications and Products in Data Processing) into the fastest growing software company in the world because of its main product SAP ERP (Davenport, 1998). According to Scapens, Jazayeri and Scapens (1998) the main SAP modules are divided into finance and accounting, human resources, manufacturing and logistics, and sales and distribution. Several studies have investigated which are the most implemented modules, having concluded that the financial accounting and materials management modules are the most chosen ones (Spathis & Constantinides, 2004; Parlakkaya, Cetin & Akmese 2011). ERPs are thus presented as systems that include the best organizational practices, procedures and tools, able to integrate, analyse, and report information from all areas of business, boosting organizational excellence through full integration (Madani, 2009; Parlakkaya et al., 2011).

The increase in organizational performance seems to be one of the main reasons for implementing ERP systems (Kallunki, Laitinen & Silvola 2011), however some studies show that the objective may be to improve non-financial performance even if there is no direct increase in the financial performance of the organization (Chapman & Kihn, 2009; Kallunki et al., 2011). Other reasons for the implementation of ERP systems were found by Parlakkaya et al. (2011), in a questionnaire to the 500 largest industrial companies in Turkey regarding the reasons that led to the adoption of ERP systems. These authors concluded that the main reasons were the need to integrate the systems of information and of production of information for decision making.

With regard to the benefits of implementing ERP systems, several studies show that its implementation can lead to cost reductions and a decrease in the number of working hours (Scapens et al., 1998; Newman & Westrup, 2005; Hooshang 2006). For Lindley, Topping and Lindley (2008) it is expected that the adoption of these systems allows for lower long-term costs, although in the short term the costs will be higher due to the necessary process of implementation and training. Several authors have also noticed the increase in the speed and quality of the decision-making process (Lea, 2007). The possibility of integration of previously existing systems, offered by ERPs, is also presented as an advantage, as it facilitates not only the elimination of redundancies caused by outdated data (Davenport, 1998; Hooshang, 2006), but also lowers the maintenance costs of having multiple systems operating separately (Scapens et al., 1998).

Although many are the benefits described, the process of implementation of these integrated systems also creates problems, because although ERP is announced as a generic solution, the customization process at each organization is a complex task (Davenport, 1998; Kholeif, Abdel-Kader & Sherer, 2007). In addition to the technical risks associated with the installation of these systems, Malhotra and Temponi (2010) also warn against what they consider to be the greatest risk: resistance to change by those with a hand in the implementation process.
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