



## ENHANCING THE PERFORMANCE OF BUSINESS PROCESS IN ROMANIAN SMES THROUGH ERP SOLUTIONS

Mirela TURKES<sup>1</sup>, Irina RAICU<sup>2</sup>, Ioan VIJA<sup>3</sup>

<sup>1</sup> Faculty of Finance, Banking and Accountancy Dimitrie Cantemir Christian University, E-mail: [mirela.turkes@ucdc.ro](mailto:mirela.turkes@ucdc.ro)

<sup>2</sup> The Bucharest University of Economic Studies, E-mail: [irina.raicu@ie.ase.ro](mailto:irina.raicu@ie.ase.ro)

<sup>3</sup> The Bucharest University of Economic Studies, E-mail: [radu.vija@gmail.com](mailto:radu.vija@gmail.com)

**Abstract** Over the past years, the need of improving the performance of business process management (BPM) on small-to medium sized enterprises (SMEs) has increased. BPM is a key issue for enterprises, particularly in a dynamic business environment. There is evidence that Enterprise resource planning (ERP) system solutions have become a strategic direction for many SMEs. BPM is a very important factor that has a positive impact on successful ERP implementation. The overall objective of this paper is to analyze the importance of adopting an ERP solution as a way to enhance the performance of SMEs.

**Key words:**

Business process, small and medium business, business processes, ERP

**JEL Codes:**

M 31, M37

### 1. Introduction

European Commission asserts [1] that the companies which have the number of employees up to 250 people and a maximum annual turnover of 50 million euro are considered Small- to medium sized enterprises (SMEs).

Business processes generally play an important role in SMEs and it specifically defines how the activities are going to be performed, and how these processes play the vital role must be understood clearly because it gives the basic knowledge of what is going to be done within an organization. Enterprise resource planning (ERP) systems provide a viable means for managing business processes [2]. Typically, ERP-system a single standard information system which provides cross-organization integration of data through embedded business processes. Due to the integration of business processes implemented by ERP, it becomes possible to eliminate the boundaries between functional departments, increase the access to information and its seamless movement between the various departments. [3]

An ERP system is a business support software system that maintains in a single database the data needed for a variety of business functions Production Planning, Supply Chain Management, Financials, Projects, Human Resources and Customer

Relationship Management (CRM). Figure 1 presents the ERP system overview.

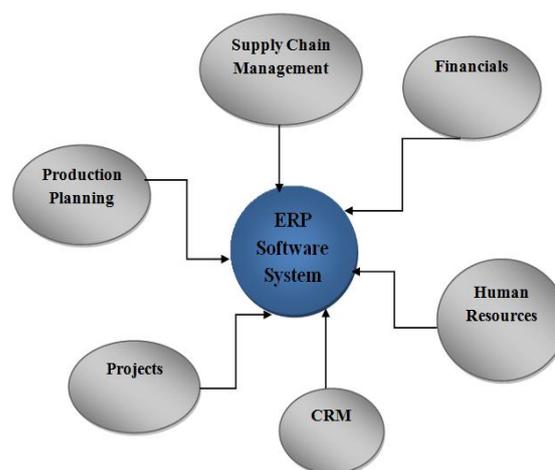


Figure 1. ERP System Overview

The software modules can be customized to answer the specific needs of each enterprise such as the CRM module. Several studies [4], already presented the benefits that the adoption of CRM systems are bringing to any organization by improving the company's performance.

The main purpose of this paper is to analyze the importance of adopting an ERP solution in Romanian SMEs as a way to enhance the performance of the enterprise.

## 2. Usage of ERP system solutions in Romania

SMEs drive innovation and growth: 99% of the Romanian economy consists of SMEs that together employ over 50% of the country's workforce. Especially in manufacturing, many companies have become the global market leaders in their niche. But many businesses have failed to suitably adapt their IT systems to their dynamic development.

In Romania, many SMEs still use outdated IT systems to run their business processes and coordinate resources such as capital, supplies and personnel. Demand is therefore high for more standardized software for ERP. But more so than before, software manufacturers and IT service providers must take into account the specifics of SMEs in order to tap the full potential of this market. An increasing number of SMEs needs to modernize, harmonize and professionalize their IT. The adoption of an ERP system solution seems to be a good solution for SMEs.

The SMEs tendencies of implementing an ERP solution on Romanian market can be divided in 2 main directions:

- SMEs which prefer the adoption of an open source ERP
- SMEs which prefer to replace the current ERP

### 2.1. Adoption of an open source ERP

The open source software is attractive for SMEs that want to implement ERP solutions to manage their own business.

The main advantage by adopting an open source ERP solution is the direct implementation of the system without intermediaries.

Other strengths by implementing this type of ERP are:

- *Low costs:* One of the most important factors that determine the SMEs to choose an ERP open source solution is the cost. Open source solutions allow downloading and installing software code free and open, and the enterprise does not have to pay license fees for software every year, such as an ERP solution with software owner. Therefore, as the cost is one of the main elements in choosing a software solution, open source ERP does not involve any fees or cost of maintenance.
- *Fast and easy implementation:* Open source ERP is easier to implement thanks to being open to the community. A lot of equipment installation, configuration and implementation are available online and for free.

- *Flexibility:* Another important point to Open Source ERP software selection is the flexibility and the customization of the software system, which can be very difficult when it's about software owner, because it can involve a big investment for a particular customization.

We highlighted the advantages and the reasons that SMEs should adopt an open source ERP, but in the implementation process can appear also negative elements. For a successful implementation it's necessary that SMEs to conduct an appropriate study about the internal processes within enterprise before selecting the suitable ERP package.

On the current market, plenty of open source ERP software systems are available. We enumerate the most important ones: ADempiere, OpenERP, Openbravo, Compiere.

### 2.2. Replacing the current ERP

Important for ERP systems are the total costs which include cost of consulting, analysis, license, implementation, customization, maintenance, training, integration, support, upgrades and continuous adaptation to processes. Though the decision to replace the current ERP platform may be easy, the replacement process is not a very simple thing.

The success of such an approach is decisive based on finding the most suitable specialized partner. Organizations choose the replacement of their ERP systems for various reasons.

The main raised question refers to the ability of the existing system for effectively support the business strategy of the enterprise.

We recommend the following elements which we consider are necessary to identify and to select the most suitable ERP solution for SMEs:

1. *The final decision of replacement must resist to future changes:* An ERP system needs to increase along with the enterprise and business plans, according to requirements from industry.

2. *The referred solutions must be solid:* The best systems solutions include essential features for manufacturers who are looking for new modalities to become more competitive. The origin of a system may be an important element of differentiation. For manufacturers, the most suitable software system is which from the beginning, was built on a common

platform with strong foundations in production engineering processes.

3. *The software package is perfect adapted to the business environment*: Even if the current processes are modeled or redesigned and the inefficient processes are improved for follow new strategies, there are five key elements of the solution that provides the possibility to benefit from a perfect adapted to the business environment software system. The mentioned before elements are the finalization of the implementation plans, the system configuration, tools for system customization, advanced technologies and portals.

### 3. Conclusions

All too often the entrepreneurial focus is on quickly expanding into new markets, and the need for adapting IT systems is overlooked. An increasing number of SMEs needs to modernize, harmonize and professionalize their IT by implementing an ERP system solution. In this paper we analyzed the importance of adopting an ERP solution as a way to enhance the performance of SMEs, particularly on Romanian markets. Also we underlined the benefits of this implementation and we recommended the most important elements for selecting a suitable ERP software system for SMEs.

### References:

- [1] European Commission. Recommendation 2003/361/EC: SME definition [Electronic resource]. Access: [http://europa.eu.int/comm/enterprise/enterprise\\_policy/sme\\_definition/index\\_en.htm](http://europa.eu.int/comm/enterprise/enterprise_policy/sme_definition/index_en.htm) (reference date 01.02.2015)
- [2] Jayaganesh, Malini and Shanks, Graeme, "A Cultural Analysis of ERP-enabled Business Process Management Strategy and Governance in Indian Organisations" (2009). ACIS 2009 Proceedings. Paper 100. Access: <http://aisel.aisnet.org/acis2009/100>
- [3] Ekaterina Bazhenova, Victor Taratukhin, Jörg Becker. "Impact of information and communication technologies on business process management on small and medium enterprises in the emerging countries" (2012). Proceedings of the 11th International Conference on perspectives in business informatics research. Nizhny Novgorod, Russia,
- [4] Constantinos J. Stefanou, Christos Sarmaniotis, Amalia Stafyla, (2003) "CRM and customer-centric

knowledge management: an empirical research", Business Process Management Journal, Vol. 9 Iss: 5, pp.617 - 634