



# International Journal of Multidisciplinary Research and Growth Evaluation



International Journal of Multidisciplinary Research and Growth Evaluation

ISSN: 2582-7138

Received: 27-05-2021; Accepted: 14-06-2021

www.allmultidisciplinaryjournal.com

Volume 2; Issue 4; May-June 2021; Page No. 46-48

## The role of enterprise resource planning systems (ERP) in improving company performance

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### Abstract

The purpose of this study is to explain the role of Enterprise Resource Planning Systems (ERP) in improving company performance. The method used in this research is literature study method and literature study method with the initial stage of formulating problems, planning strategies, sorting the results of literature searches, analysis, and the final stage

of drawing conclusions. The results of this study indicate that the ERP system has a significant relationship with company performance. Research needs to be developed again in the long term so that the impact of implementing an ERP system on company performance can be known with certainty.

**Keywords:** ERP Systems, ERP Implementation, and Company Performance

### 1. Introduction

Increasingly fierce competition in the business environment encourages companies to always innovate and improve their performance. This is because companies with high innovation will increase their competitive advantage. There are various innovative ways that companies can take, one of which is by developing company information technology. In the era of globalization, technological sophistication in the business environment continues to develop from year to year. This technological development cannot be separated from how an information system is used as a tool to help management decision making in order to improve company performance (Hsu, 2013). One technology-based innovation that companies can use is to implement Enterprise Resource Planning to help increase competitiveness and company value. Enterprise Resource Planning (ERP) is a computer-based integrated system designed to process corporate transactions and facilitate integrated real-time planning, production, and consumer response (Wibisono, 2005). Companies that implement ERP can improve innovation performance and performance quality which will have a direct impact on company performance, especially in increasing the accuracy of information between departments in the company, faster response to customers, and helping companies in making decisions and using good resources. In addition, the existence of ERP will minimize the costs incurred by the company, such as supervision and maintenance costs, thus increasing the efficiency of the company. However, ERP systems require complex technology coordination and infrastructure within the company (Galy & Saucedo, 2014). ERP system failure can occur during implementation, integration problems, lack of funds, mismatched project scheduling, and user resistance to change (Katerattanakul *et al.*, 2014).

### 2. Literature Review

Loundon (2009) explains that ERP is a business package software system that allows organizations to automate and integrate most of their business processes, share common data and practices across the company and generate and access information in a fast time environment. Various business activities including sales, marketing, production, billing, human resource management, inventory management and quality control depend on this system. ERP systems help in managing connections to stakeholders and improve management performance.

According to Monk and Wagner (2001), the Enterprise Resource Planning system is a system used by companies to integrate and coordinate information in each area of business processes. ERP programs help organizations to manage companies that have a wide scope of business processes, use an integrated basis and are used as an effective management reporting tool to support decision making for users of financial statements. A business process is a set of activities where it starts with certain inputs to produce certain outputs such as reports or predictions that have added value for customers (Daoud & Triki, 2013). ERP software drives the operating efficiency of business processes by integrating interconnected tasks such as sales, accounting, and human resource management within the company.

Wibisono (2005) states that the advantages of implementing this integrated information system in the ERP concept are as follows:

- a) ERP offers an integrated system within the company, so that processes and decision making can be carried out more effectively and efficiently.
- b) ERP also allows for global integration. Barriers in the form of currency differences, language differences and cultural differences can be resolved automatically, so that data can be integrated.
- c) Enterprise Resource Planning not only integrates data and people, but also eliminates the need for updating and synchronizing many separate computer systems.
- d) Enterprise Resource Planning allows management to manage operations, not just monitors. With Enterprise Resource Planning, management is not only able to answer the question "How are we doing?" But is able to answer the question "What can we do to be better?"
- e) ERP helps smooth the implementation of supply chain management with the ability to integrate it.

### 3. Method

This research utilizes literature study method to find out similar research that has been done. Each study will be briefly discussed to find out the differences between each of the studies that have been carried out. So that it can be seen clearly the novelty of the method proposed through this study compared to previous studies. In addition, this study uses the literature study method, namely using some literature and books related to the variables in this study. Research that has been conducted (Dwi, Noorlailie, & Isnalita, 2018) which discusses the impact of the ERP system regarding the relevance of accounting information and company performance. The research results reveal that the existence of an ERP system in a company can present past and future information so that companies can have more complete information to compare the progress of a company's success from year to year and can make or take more effective and more rational company decisions. so that it will improve the company's performance better. According to this research, the ERP system can process financial reports in a nutshell so that companies can make decisions quickly and minimize costs. Research on the role of ERP systems and changes in work patterns as an effort to improve company performance (Hendra & Santo, 2014) has been carried out. The results of this study indicate that the ERP system can support and assist operational activities in order to increase efficiency and effectiveness and have a significant role in company performance. This can be done because of the alignment between the business strategy and the ERP system. Based on the results of research (Aries, Hery, & Ignatius, 2015) it is stated that the implementation of an ERP system can have a positive impact on the level of performance quality, quantity of work, creativity in creating solutions to problems, and quality of work in order to conform to the specified standards.

### 4. Results and Discussion

From the literature results, it is found that several factors that determine the success of an ERP system in order to improve the performance of the company:

#### 4.1 Effects of Top Management Support

The existence of commitment from top management and sufficient training in a company is an important success

factor, so that a project can be carried out smoothly. According to Sum, Ang, and Yeo (1997), top management support includes three forms, namely showing a leadership attitude, commitment to the project, and providing the required resources. The support from top management is a clear commitment, goals and objectives from the top management in implementing the ERP system and the availability of the necessary resources.

#### 4.2 Effective Project Management

According to Zhang, Lee, and Banerjee (2002), there are several important things that are part of project management, including: having a formal implementation plan, setting a realistic time limit, holding regular meetings to monitor project status, and assign an experienced project leader. Meanwhile, according to Sum, Ang, and Yeo (1997), an effective project management is to make a formal plan or an appropriate methodology to fit the company's vision and set a realistic time limit. Effective project management is clarity in defining the scope and planning of project implementation, the existence of realistic implementation time limits and the skills / skills of a good project manager.

#### 4.3 Business Process Reengineering

In doing work, each level has a different capacity in using ERP system technology. Usually, the ones who use this system most often are the low-level ones, but those who know the development and consistency of the ERP system are mid-level and high-level. They are authorized to make changes in their business processes in accordance with the ERP system and provide approval. According to Hammer and Champy (2001) BPR is rethinking and redesigning business processes to improve company performance in terms of cost, quality, speed and service. This factor is one that is important so that business processes can match the software with minimal customization. According to (Rosario, 2000) it is important to review and redesign business processes. According to (Hammer and Champy, 1993) say that an ERP system cannot stand alone in improving organizational performance without reorganizing its business processes. Business Process Reengineering (BPR) is where a company needs to prepare or plan to change its business processes, good communication during the implementation process, and the company's ability to engineer it.

#### 4.4 Selection of Software and Hardware

In selecting the software and hardware used it is very important to be compatible with multiple operating systems and organizational databases. Therefore, the first step that must be taken is that the company needs to carry out a needs analysis to ascertain what problems need to be resolved and to choose and adjust the ERP system that best suits the company's needs. According to Zhang, Lee and Banerjee (2002), there are three aspects that need to be considered in choosing hardware and software, such as: compatibility between hardware / software and what the company needs, ease of upgrading to a higher version, and ease of use modifying terms.

#### 4.5 Education and Training

According to (Martinsons and Westwood, 1997; Sum, Ang and Yeo, 1997) training and education refers to the process of preparing employees and management in understanding explanations of the logic and overall concepts of the ERP

system. By doing so, people will be able to better understand how their tasks relate to other functional areas within the company. Users are people who produce results and are responsible for the system to be implemented as planned. Meanwhile, according to research conducted by Sum, Ang and Yeo (1997), it is stated that training should not be limited to training in the exclusive areas of the organization. However, it must be taught the logic and the overall concept of the ERP system as well. ERP system training will show employees why changes need to be implemented, while functional training will help in overcoming computer fear. In addition, ERP system package users must be clear and the system must be easily understood. Education and training provided to employees in implementing ERP systems, in order to be successful, it requires concepts and logic regarding ERP, quality mentors and simple and easy to understand instructions.

#### 4.6 Vendor Support

Cooperation with sellers / customers is very important in the success of an ERP project (Stackpole, 1999). The results show that a better fit between the vendor's software and the company's users is positively related to the success of the software implementation package (Janson and Subramanian, 1996) and that companies need to try to continue to maximize their suitability with the seller in order to match what is needed. by the company. The connection between the software seller and the seller is naturally a trick with the ERP system provider in increasing the competitiveness and efficiency of the company. There are three aspects to classifying seller support, namely: fast response in service from the seller, Qualified consultants with knowledge of both the company's business processes and the information technology side of the seller's ERP system, as well as the active role of the seller in implementing the ERP system. Without the support of the software seller, it can become an obstacle in the process of implementing an ERP system. In addition, the seller must also be competent in information technology and have a lot of knowledge about business processes.

#### 5. Conclusion

From the discussion that has been done, it can be concluded that the ERP system and the business world cannot be separated, because the implementation of the ERP system will support and assist operational activities in order to increase efficiency and effectiveness, which ultimately provides benefits for the company. ERP systems have a significant relationship to company performance. For this reason, it is necessary to have a level of alignment between business strategic and ERP systems, including: the influence of top management support, effective project management, business process reengineering, hardware and software selection, training and education, and sales support.

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