

# The Role of Human Resources and Information Technology on Implementation of Business Process Reengineering Strategy

1<sup>st</sup> Herminawaty Abubakar  
Universitas Bosowa  
Makasar, Indonesia

herminawati.abubakar@universitasbosowa.ac.id

2<sup>nd</sup> Palipada Palisuri  
Universitas Bosowa  
Makasar, Indonesia

palipada.palisuri@universitasbosowa.ac.id

**Abstract.** Currently, competition is getting tighter, coupled with the emergence of new competitors coming from various business organizations with different strategies so that now the company is also looking for new sources of competitive advantage, which are rare, difficult to replicate and can be used continuously. This study aims to analyze the role of human resources and information technology in the implementation of business process reengineering strategies that are oriented towards the development of business organization performance. This article uses a literature review approach, containing a description of the theory, findings and other research material obtained from reference materials to be used as a basis for research activities. The findings in this study, business process re-engineering strategies combine human resources and information technology to develop and improve company performance. Business process re-engineering is a method that promotes change and introduces new processes and new work styles and brings different elements to enable adaptation to changing business environments.

**Keywords:** human resources, information technology, business process, engineering strategy

## I. INTRODUCTION

Business organizations are faced with a new era indicated by the advancement of science, knowledge, global markets, the increasing role of customers in innovation, and the importance of information technology in business processes [1][2]. Rapid changes in business globalization have developed significant challenges for organizations to maintain innovation and sustainable growth [3]. Competition and globalization have encouraged companies to restructure and focus on managing change [4] [5]. Thus, business organizations must develop their capacity to learn patterns, new values, and work strategies so that these elements can be transformed into an organizational life that is better able to answer every organizational challenge.

Increasing levels of competition characterize the current environment. The company strives to gain market share in the global economy with intense competition. Quality, customer satisfaction, and profitability are the main things on the agenda of every company [6]. Companies that want to expand their market share or gain profits must adapt to changes in the business environment. Changes in economic conditions increased the company's interest in using business process re-engineering strategies

to maintain the sustainable growth of business organizations [7].

Business process re-engineering has been proposed as a useful managerial tool to deal with technological change [8] [9]. Research conducted by Jain also supports this opinion, et al. [10], argued that the current business process re-engineering is a mature concept, which has evolved over a period.

The use of information technology and the role of human resources helps business organizations address the challenges that can rapidly change the business environment. This study aims to analyze the empowerment of human resources and the utilization of information technology in business process re-engineering strategies that are oriented towards achieving business organization goals.

## II. METHODS

This study uses a literature review approach and theoretical background. The research methodology consists of three stages:

First, do a literature review of the actual implementation, then review the articles taken, and exclude rhetorical, opinion and theoretical articles. The literature used is case-based and empirical research articles. This collection of articles through a review to select articles with sufficient information about the use of human resources and information technology in the implementation of business process reengineering (BPR).

Second, the reviews in this article provide a summary of empirical evidence about the success factors and the causes of the failure of each approach.

Third, the learning of empirical evidence is then synthesized with concepts drawn from economics and management science and is used to develop a conceptual framework to advance the practice of business process re-engineering and provide guidance on actions that help guarantee the effectiveness of its application.

## III. RESULT AND DISCUSSION

The concept of business process re-engineering was introduced in 1993 by Hammer and Champy, emphasizing a movement that significantly affected the business world. They believe that companies need to reconsider their

conditions and reorganize activities in a process-based context to succeed and survive in the current global economic era [11]. Besides, the efficiency, creativity, and ability of the organization to meet customer demands and requirements require a necessary review in the implementation of organizational activities and processes [12]. As a result, many changes in business methods began to emerge. One of them is business process re-engineering.

Business Process Reengineering (BPR) is an approach to business transformation that emphasizes customer-oriented business management practices with the use of information technology [5]. Information technology and human resources play a crucial role in the company's ability to function effectively by ensuring the adoption of the chosen strategy [9][10]. The concept of business process re-engineering changes traditional understanding of business behavior. This is because it uses resources especially human resources and information technology in all areas of the business organization [13].

Haghighat and Mohammadi[12] suggested that business process reengineering (BPR) is a fundamental rethinking of business processes and in its application requires human resources and information technology. Besides, business process re-engineering is a fundamental and radical rethinking of business processes to get dramatic improvements concerning important and contemporary performance measures, such as costs, service quality, and speed [14][15]. Furthermore, re-engineering (BPR) is not only a program to improve business processes but to improve the overall business process operations [16].

Business process reengineering (BPR) has been proposed as a useful managerial tool for analyzing and redesigning workflows and processes within and outside the organization [17]. This opinion is supported by Rahardhini [1] and Septiani[2] who stated that redesigning their organizations, changing the way they work, and achieving spectacular improvements using human resources and information technology as enablers. Therefore, an information technology planning approach is required. Some conventional methods of organizational response do not work in environments that have used information technology. In the technology planning process tends to get better over time.

Currently, competition is getting tighter, coupled with the emergence of new competitors coming from different business organizations with different strategies so that now the company is also looking for new sources of competitive advantage, which are rare, difficult to replicate and can be used continuously. Business organizations continue to look for innovative ways to operate in order to survive in a competitive business environment. Management approaches such as Business Process Reengineering (BPR) are adopted by many organizations to achieve high business performance [4][19]. On the other hand, Hong [8], believes that in order to pursue success or be remarkable, many companies are implementing

Business Process Reengineering to solve significant problems, to improve efficiency, quality, and reduce costs. In line with the opinion expressed by Akhavan et al. [20] that business process re-engineering has emphasized that managing change is a fundamental business skill.

### **Role of Human Resources**

Placing the right people in the right jobs will enable the achievement of short-term and long-term goals to be more successful [9][10]. Some people make the wrong concept of Business Process Reengineering, and they assume that business process re-engineering is done when the company is experiencing problems in achieving performance [18]. This is supported by Bagasworo[14] business process re-engineering carried out in 3 companies, namely: 1) Companies that are facing significant problems, 2) Companies that have not experienced difficulties but management have a foresight, see the problems coming soon, and 3) Companies that are in peak condition, the company sees reengineering as an opportunity to leave its competitors further.

The cause of the failure of the implementation of business process reengineering was the lack of top management commitment and the inability to do business processes re-engineering[12]. Besides, Haghighat and Mohammadi[12] argued that the necessary cause of failure in implementing business process re-engineering was the lack of readiness of the company to manage human resources. Inefficient and effective human resource management is one of the causes of failure of business process re-engineering. Stimulating organizations and individuals to accept the changes made is possible through communication with each other, training and strengthening the spirit of innovation is possible through the creation of an appropriate environment and encourage the provision of new ideas and a lack of resistance to new changes [17].

Reconstruction in the process is directed to simplifying the tasks that are charged to workers who can meet consumer demands that are so complex as demands for better product quality, affordable prices and delivery time provisions. The internal and external environment of the company can provide positive and negative effects on human resources. Positive effects in the form of the collaborative work environment, top management commitment and changes in system management and negative effects in the form of worker's fear of losing work, project uncertainty and a sense of discomfort and anxiety in the workplace [17].

### **Utilization of Information Technology**

Continuous strategy planning is a matter that companies must take into account because information technology must work closer to the business side of the organization to make sure that the company remains competitive [1]. The central element of the business process re-engineering is to fundamentally redesign the work process, add value to the end customer, integrate cross-functional specialization, and exploit information technology [21]. Therefore, information technology resources significantly influence the organization's

business activities [13]. So it can be concluded that information technology can help business process re-engineering in analyzing, modeling and mapping existing processes, evaluating the efficiency and effectiveness as well as the necessary confirmation process.

Reengineering business processes and information technology is a natural partner, but this relationship has not been fully exploited [22]. Organizations that have used information technology in the implementation of process re-engineering have benefited greatly. Besides, information technology has played a central role in the re-engineering of business processes [7]. Furthermore, [13] states that the use of information technology is for the efficiency and effectiveness of business processes company. On the other hand, significant and expensive information technology investments often disrupt business and can cause disasters for the organization [21]. This opinion is supported by [4], arguing that the cause of failure to implement business process re-engineering, in addition to human resources also caused by information technology both in the provision of infrastructure and the use of information technology. Finally, information technology can help re-engineer business processes in analyzing, modeling and mapping existing processes, evaluating their efficiency and effectiveness as well as the necessary conformational processes [20].

The business environment becomes more dynamic and uncertain, to pursue change needs to continue to innovate [9]. Organizations continue to look for innovative ways to operate in order to survive in a competitive business environment. Management approaches such as business process re-engineering are adopted by many organizations to maintain the survival of the company. Business process re-engineering is a method that promotes change and introduces new processes and new work styles. Business reengineering brings different elements to enable adaptation to changes in the business environment [24]. Finally, business process re-engineering strategies are the key to combining significant resources from corporate planning, namely human resources and information technology to develop and improve company performance.

#### IV. CONCLUSION

At present, intense competition and fast conversion, successful organizations are those who can adapt to change. Organizations that don't want to change and stay in static mode will disappear. Therefore, managers must create a primary transformation sequence for business organizations to survive and become reflective in the dynamic environment around them.

Business process re-engineering is a powerful management technique for changing organizations by making dramatic improvements, implement business process reengineering facing problems without the help of human resources and information technology to facilitate the implementation of business process re-engineering in the organization. Information technology acts as a lubricant and human resources as information technology users.

More and more staff are building better relationships with their work, and on the other hand, the more entrepreneurs have trust in their subordinates and the right delegation of authority, the individual will be involved more and thus, their ability will increase, and the company will move towards growth and development.

Many factors are inherent in reengineering successful business processes. First, top management commitment is essential to ensure that initiatives are maintained and focused, Second, focus on providing customers with higher value, Third, a place for re-engineering the primary emphasis on employees and their role in solving problems, and Fourth, information technology is an enabler in creating and maintaining a flexible business network. The risks and failures associated with implementing business processes are very high, so it is essential to investigate the reasons for failure with a systematic and multidisciplinary approach.

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