

Factors Affecting Business Process Reengineering in ERP implementation: A Literature Review

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Abstract

Many organizations are adopting ERP systems due to its claimed benefits. Enterprise Resource Planning (ERP) systems integrate diverse business processes and put the enterprises towards success, efficiency and effectiveness. Implementation of ERP requires extensive Business Process Reengineering. It is also claimed that 70% Business Process Reengineering efforts fail. In this research we have identified the challenges and their causes that affect the Business Process Reengineering in ERP Implementation.

Key Words: Enterprise Resource planning, Benefits of ERP System, Business Processes Reengineering, Challenges of BPR, Reasons of BPR failure.

Introduction

ERP systems are software solutions which provide incorporation of different business modules with their functionality. It is basically the general name of new category of software with packaged application. ERP software have two important benefits: firstly, they provide a fundamental connection between business processes and the functionality those processes, and secondly they provide integration of processes, security and data integrity, which is not easily attainable with different software platforms. The key benefit of ERP systems is that they offer a incorporated software platform for modules (Parr & Victoria, 2000).

Enterprise Resource Planning make use of ERP software applications to enhance the performance resource planning in organization (Cisl, 2013), management and operational control (Shah et al., 2011). Companies implement ERP system to become efficient as well as integrate and modernize the business (Corresponding & Chen, 2010). ERP systems incorporate different business workflows, enhance coordination in organizational, increase efficiency, decision making and changing dimensions of business such as firm structure and business, send data to the whole enterprise to produce information on time (Shah et al., 2011). ERP systems incorporate different business modules and improve the effectiveness and efficacy of the enterprise (Khan, Bokhari, Hussain, & Waheed, 2012).

Since the development of ERPs in 1990s and ERPs are extended in 2000s (Rashid, Zealand, Hossain, & Patrick, n.d.). ERP System is considered as an immediate replacement of the old systems and operating modules (Road, n.d.). In the last decade, there was remarkable boost in the exercising the ERP systems, mainly by outstanding organizations passionate to develop a worldwide information systems policy. (Skok, 2001).

More and more organizations are adopting ERP systems due to its claimed benefits. ERP systems incorporate several business processes and develop the effectiveness and efficiency of an organization (Khan et al., 2012). ERP systems are considered much vital for every enterprise to increase the productivity. Companies can achieve a competitive benefit in the global market speedily with successful implementation of ERP systems. A many companies are making investments in ERP systems (Tambovcevs, 2013). There are many benefits of ERP systems due to these benefits the demand of ERP system though out the world is increased. The Benefits are shown in Figure 1.

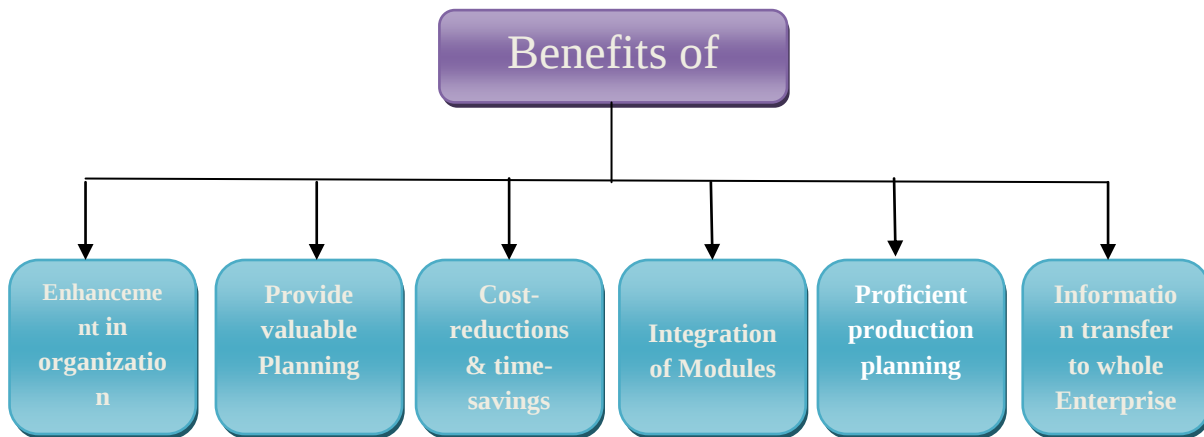


Figure 1: Benefits of ERP system

1. Enhancement in organization operation

ERP offers enrichment in operations of a organization through improving, controlling and streamlining the business processes of key importance such as acquisition, client offers, customer cavils, maintenance in equipment, encouragement promotions and others (Tambovcevs, 2013).

2. Provide valuable Planning

ERP presents valuable planning and control of every resource required to make , take , craft and justify client order in manufacturing , distribution or service company (Baray, Hameed, & Badii, 2006).

3. Considerable reduction in Cost and time-savings

ERP provides Significant reductions in cost and time-savings in all business modules (Tambovcevs, 2013).

4. Integration of Modules

ERP gives a special and complete database in which every business transaction is entered, monitored, processed, recorded, and reported. It lessens data entry and monitoring, promotes the use of implicit knowledge (intangible, embedded in individual experience), and permits the coordination of client- driven strategies (such as collection customization) (Tambovcevs, 2013)(Baray et al., 2006).

5. Proficient production planning

Flexible and proficient production planning with implementation of manufacturing management (scheduling) unit of the system. Time to deliver the project and idle times were minimized widely,

proficient production was increased, more rigorous delivery time evaluation and promotion in customer satisfaction (Tambovcevs, 2013).

6. Information transfer to whole Enterprise

ERP systems forwarded communication and transfer data of important information in the entire enterprise. Now, workers have quick contact to real-time data, reports and documents that concern their responsibilities. According to position of each user, information flow is fully customized (Tambovcevs, 2013). The purpose of this research is to identify the challenges of BPR from literature as well as from industrial survey. The study also demonstrate the reasons behind these challenges so, the organization take some steps to overcome these challenges.

Literature Review

ERP and Business Process Re-engineering

The implementation of ERP systems insist to change the present business processes to espouse best methods that are assimilated in the ERP systems (Shah et al., 2011). The available business processes within the organization must be aligned compliant with ERP software to be executed, and it is considered critical (Subramoniam & Tounsi, 2009). Business Process Reengineering (BPR) is not a mysterious word for the business community. First time, it was introduced as a tool for change in American business sector two decades ago (Habib & Shah, 2013).

Reasons of BPR failure

Business Process Reengineering is considered as one of the important success factor in ERP implementation. Moreover, It is claimed in many studies that 70% Business Process Reengineering efforts fail or delivered less than they had promised (Goksoy, Ozsoy, & Vayvay, 2012)(Habib & Shah, 2013). There are many reasons of BPR failure. Some of challenges that BPR faces, are listed below:

1. Vague methodology

Adjustment of proper methodology is necessary for the success of drastic change process but companies when adopting BPR often fails to choose the right methodology for conducting the change (Habib, 2013; Hanif, Khan, & Zaheer, 2014). The reason is lack of proper strategy for conducting BPR.

2. Cross-functional teams creating problem

Many organizations fail to establish suitable teams and because of the need for cross functional teams, it creates problem for management (Centre, 1999; Habib, 2013). The cause behind absence of cross well-designed project team because of complexity in discovering appropriate team members. (Reengineering, 2011) (Alsaigh, 2013; Centre, 1999; Reengineering, 2011).

3. Lack of user Participation

The past research reveals that the reason behind slackness of BPR in implementation of ERP is lack of user participation that may cause the failure of implementation of ERP system (Khan et al., 2012). user participation in ERP implementation is very important and it cannot be disregarded, because it plays a central role in successful ERP implementation in the organization (Technology, Eric, James, & Mary, 2007).

4. Ineffective process redesign

Problem can occur due to omitted elements of BPR module, and also due to lack of understanding and right track and who accurately are the program proprietors, with: Fortitude of insufficient scope for change Improper focus on fundamental processes carefully defined processes(Reengineering, 2011).

5. Lack of proper training & education

Absence of proper guidance for those pretentious by BPR” and lack of indulgent of BPR and the lack of theory, as more possible failure systems (Centre, 1999; Mlay, Zlotnikova, & Watundu, 2013; Reengineering, 2011).The strategy for training lacks .There is need of proper training strategy.

6. Lack of resource , leadership and communication

Absence of necessary resources for BPR attempts and unsound financial conditions , lack of leadership and proper communication are also reasons of BPR failure (Habib & Shah, 2013).

7. Resistance to change

Owing to a constricted awareness of formalized ERP systems and business processes with work burden in the process implementation, users were unwilling to change. User resists due to following reasons: Fear of Employee for losing job, Fear of losing authority and Uncomfortable with new environment (Habib & Shah, 2013)

8. Defining wrong objectives and Selecting wrong process

Defining a change goal incorrectly and selecting a wrong process which will not insert immense worth to the organization’s overall performance would outcome in reengineering failure (Alsaigh, 2013; Goksoy et al., 2012; Hanif et al., 2014; Muthu, Whitman, & Cheraghi, 1999; Reengineering, 2011).There is lack of strategy for process selection.

9. ERP Software Misfit

Because of unclear ERP selection along with valuation process, ERP system was considered to be ill-fitting with the business necessities. For instance, the ERP was ineffectually managing a lofty quantity of artefact master files and incapable to devise Convolved bills of materials and planning of production formulation). Project teams relied on profound customization (such as shifting the system program, or writing down various management reports, or accomplishing data transfer like workarounds) for solving the problems (Wong et al., 2003). Heavy customization is the reason of ERP misfit. It is evaluated form industrial survey that ERP software has its own standard business process/modules. These modules are implemented by taking user requirement. Sometime business processes are changed according to manual working of organization. Business reengineering failure can occur when standard ERP Modules are changed according to manual working. Gap for reengineering is shown in figure 2:

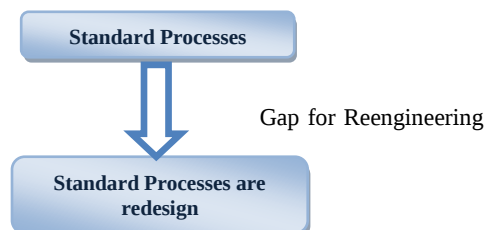


Figure 2: Reason of ERP misfit

10. Parallel Reengineering

It is determine from the industry survey that when the Business processes are dependent on other processes they must be parallel reengineered. There should be pre planned strategy for parallel reengineering. When multiple processes are reengineered at the same time, their effectiveness may become weak. Parallel reengineering demand organization resources such as technical, human, and financial re-sources. Top Management commitment may not be sustained throughout the project duration(Publishing, 2004). When the Business processes are dependent on other processes they must be parallel reengineered. There should be pre planned strategy for parallel reengineering.

Conclusion and Discussion

Many organizations are adopting ERP systems due to its claimed benefits. Different business processes are integrated by ERP systems and ERP systems improve the competence and effectiveness of the endeavor. Implementation of ERP requires extensive Business Process Reengineering .It is also claimed that 70% Business Process Reengineering efforts fail. In this research we have identified the challenges and their causes that affect the Business Process Reengineering in ERP Implementation. The study demonstrate the reasons behind these challenges so, the organization take some steps to overcome these challenges. The challenges are identified from literature as well as from industrial survey. A comparative study about the solutions of highlighted challenges will be performed in future work.

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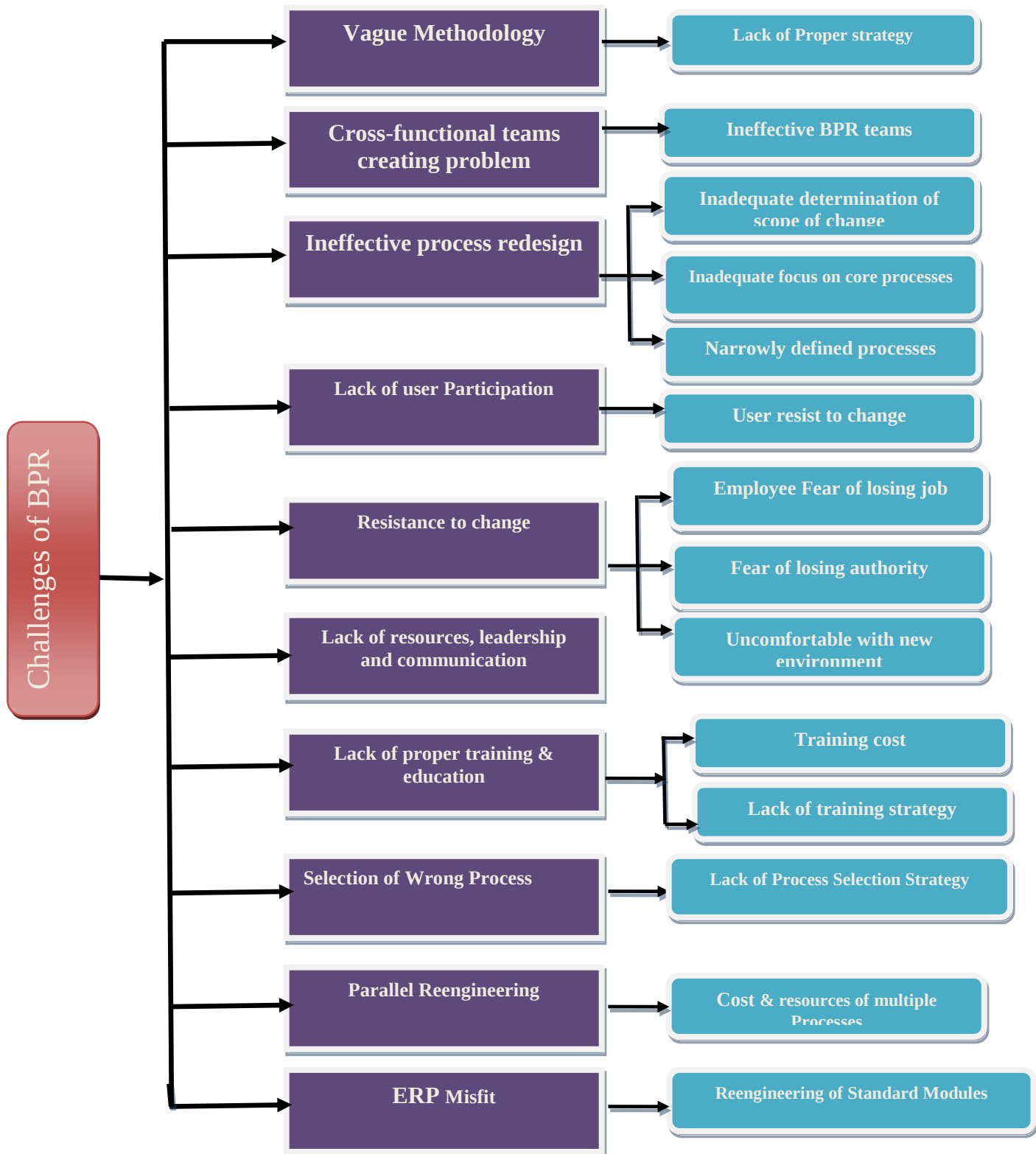


Figure 3: Challenges of Business Process Reengineering with their reasons