ERP a Boon for Contemporary Industries

Sandeep Singhal\(^1\) & S.K. Sharma\(^2\)

\(^1\) Department of Mechanical Engineering National Institute of Technology, Kurukshetra, Haryana, India
E-mail: \(^1\)sandeep_singhal_reck@rediffmail.com, \(^2\)sksharma49nitk@yahoo.com

ABSTRACT

Over the past two decades, businesses have changed enormously with growing customer pressure for responsiveness, variety and even lower prices. To meet the customer’s expectations in modern times a number of Information Systems have been developed and many more are under development. Enterprise Resource Planning (ERP) is one of the information systems that emerged in the early 1990s. Manufacturers in a wide variety of industries enthusiastically adopted ERP were struggling with issues like globalization, acquisition consolidation, process standardization, and changes in customer expectations. The ERP implementations were often viewed as a component of a much larger business process reengineering and organizational transformation project. Through this paper the concept of ERP has been discussed in details including its applications to modern business.

Keywords: ERP, Practitioners, Competitive Advantage, Software Packages, Business

1. INTRODUCTION

During recent years, organizations have invested huge resources in the implementation of ERP systems. ERP systems, which are commercial software packages that provide the integration of transactions-oriented data and business functions throughout an enterprise that greatly enhance organizational performance and establish competitive advantage [1]. [2] Have performed a chronological analysis and a state-of-the-art report on ERP phenomenon. As far as we know, service organizations were not in the initial target zone of many ERP vendors, which instead developed products for manufacturing companies. However, ERP systems are increasingly being implemented in the service sector. By all accounts, services dominate most developed economies given that significantly more than half of these countries’ gross domestic product is in the service sector, and projected economic and job growth through the 21st century is expected to be dominated by services. Concurrent to this growth, the globalization of services and rapid. In spite of many success stories of ERP the implementation and use of ERP are critical to organizational performance and survival. Yet ERP success is difficult to achieve and failures of ERP projects could lead to serious damage to a company’s health, and even cause bankruptcy [1, 3]. The extant literature shows that successful attempt has been performed by the researcher to understand ERP and its applications to the modern business. The bulk of this research body consists of variance research which seeks to identify success factors and utilize these factors to explain variation in ERP implementation outcomes. While this type of research could provide insights into ERP implementation problems, its contribution is considerably limited by its narrow focus on immediate success without considering the dynamic nature of success. By contrast, ERP success is more convincingly described as a moving target [4]. This paper shows the impact of ERP on modern business, including its benefits offered to contemporary industries and various difficulties involved in ERP implementation.

2. BENEFITS OF ERP

Described that the rewards of a successful implementation of ERP are immense. It is further stated that operating costs will be reduced (leading to an improved return on investment), improved access to information will make possible more agile decision making for better negotiating with customers and suppliers; with no need for rewriting reports, reliable figures will be available to analyze business performance [5]. ERP systems are expected to reduce costs by improving efficiencies through computerization, and enhance decision making by providing accurate and timely enterprise-wide information. Boston Consulting Group, 2000; [6, 7, 8] Stated many benefits of an ERP system such as: Information quality, single system/integration, real-time accessibility, inventory reduction, productivity improvement, logistics/order management improvement, cash flow and forecasts improvement. Many companies claimed success, but few met their objectives or realized significant financial impact; some companies could have achieved similar value for less money; good project execution did not guarantee improved business value. When analyzing the financial impacts of ERP implementations, [9] came up with their investigation: “A significant improvement in firm
performance resulting from a decrease in the ratio of cost of goods sold to revenues was found 3 years after the ERP system implementation; further, there was a significant reduction in the ratio of employees to revenues for each of the 3 years examined following the ERP implementation”. In spite of all the benefits offered from successful implementation of ERP there is a need to focus on the technical and financial aspect of the ERP implementation. Many researcher such as [10, 11] used the critical success factors approach to the study of ERP implementations. [12] Propose to consider the influence of characteristics of companies since the preliminary phase of an ERP project.

3. ERP IN SERVICE INDUSTRY

The benefits and costs of ERP have been studied by [13, 14, 15] One study shows that by adopting an ERP system, inventory costs can be reduced by an average of 25–30% and raw material costs can be reduced by about 15% [14]. In addition, the authors point out that production time, lead-time for customers, and production costs can be also reduced. [16] Provide a review of various service typologies and taxonomies. The classification approaches given are based on unique attributes of services such as customer contact, customization, labor intensity, people versus equipment issues, etc. They provide a theoretical basis for analyzing different types of services: “AS per [17] all airlines, trucking, and hotels are service factories; all hospitals and repair services are service shops; all retail businesses are mass service; whereas all doctors, lawyers, accountants and architects are professional service providers. Similarly, according to [18] all fast food restaurants are classified as service factory, all health care clinics as service shop, and all consulting as expert service.” The principal role of manufacturing is to turn physical raw materials into tangible products. A tangible product is one that can be physically touched, visualized and valued in monetary terms. Service, on the other hand, generally implies an act. A service industry also provides a “product” but one that is often intangible and cannot be described in the same dimensional terms as manufactured goods. Several differences between services and manufacturing industries have been identified in the literature. Service operations involve a lack of inventories, consumer contact, joint production, customer-specific inputs and intangibility in varying degrees [19]. Competition and contracting Moreover, most service operations are highly labor intensive, and efforts to improve system performance cannot ignore the attitudes and behaviors of workers. [16] Discussed customer contact models. They highlight three characteristics of service delivery systems: labor intensity, customer contact and service customization.

4. PROBLEMS IN ERP IMPLEMENTATION

Misalignment, or misfit, is historically a common problem for packaged software adoption [20]. A knowledge-focused perspective [21] contends that technology suppliers commodify knowledge and present ‘packaged’ solutions in complex information systems (e.g. ERP) which create problems for potential users who need to unpack this knowledge and integrate it with existing organizational knowledge. Hence, knowledge transfer is essential between ERP systems and adopting organizations. Employing the dialectic perspective facilitates the explanation of inconsistent findings in the ERP literature [22]. Taking this perspective, [23] find that misalignments that emerge in ERP implementation can be traced to a few fundamental incompatibilities between the embedded structures of ERP and the implementing organization, and provide suggestions on how to remove the misalignment by using customization, adoption, or workaround resolutions. Consistent with [21] and [22] view ERP implementation as a dialectic of learning where the most fundamental dialectic occurs between the old knowledge embedded in business processes and practices associated with legacy systems, and the new business processes and practices that ERP is designed to support. The dialectic perspective helps to identify and address configuration knowledge barriers and assimilation knowledge barriers to implementing ERP systems. Many authors like [24, 25, 26, 27, 28, 29, 30, 31, and 32] have presented the implementation of ERP and problems encountered in many ways. The requirement of business process change is discussed by [33, 34, 35, 36 and 37] The reasons for ERP failure are the lack of top management support, data accuracy, and user involvement can attribute to system implementation failures [38]. Lack of proper training, less time due to schedule pressure and less understanding of cross-functional business processes are often reported as reasons for ERP failure [39]

5. CONCLUSIONS

In this paper the concept of ERP is discussed in details and benefits of ERP are also given due importance, so that managers and practitioners can understand and take full advantage of ERP implementation. ERP is emerged as a real boon for the modern industry and offered lots of benefits to the business managers. The problems encountered by various business players are also discussed to help the industries to avoid father reoccurrence of the same. So this paper will be very beneficial for the researchers, practitioners and managers all over the world.

REFERENCES


