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## ERP Implementation in Indian perspective: Critical Issues

**Dr. Sangeeta Arora<sup>1</sup>,**

Asst. Professor/ Head of Dept., Department of Economics,  
Dev Samaj College for Women, Ferozepur City, Pb., India.

**Dr. Raminder Pal Singh<sup>2</sup>**

Associate Professor, Dept. of Management,  
Shaheed Bhagat Singh State Technical Campus, Moga Road, Ferozepur, Pb., India.

### ABSTRACT

*Since early 1990s, many firms around the world have shifted their information technology (IT) strategy from developing information systems in-house to purchasing application software such as enterprise resource planning (ERP) systems. ERP systems comprises of powerful software packages which integrates the information of different departments of an enterprise like warehouse, sales, logistics, production etc. and by this way produced data in a department becomes immediately available to other departments. Implementing an ERP causes massive change that needs to be carefully managed to reap the benefits of an ERP solution. However, despite of its strategic importance, ERP projects report an unusually high failure rate, sometimes jeopardizing the core operations of the implementing organization. This study explores the root of such high failure rate.*

### 1.1 Introduction

In the post liberalization and opening up of the economy in business era, ease in international trade barriers, economic liberalization, globalization, privatization, disinvestments and deregulation have thrown several challenges to the enterprises in the fast developing economies like India. Enterprise Resource Planning is often considered as one of the solutions for their survival (Rao, 2000). Up to mid-1990s, SMEs sector in India had operated under a much-protected economic regime characterized by limited competition and a highly regulated business environment. This business atmosphere had resulted in limited focus on process efficiencies, centralized control structures, highly formalized business settings and lack of professional business practices (Ranganathan and Kannabiran, 2004). However, following the economic liberalization and opening up of the economy to foreign Multi-National Companies (MNCs), Indian enterprises have been forced to adopt modern business practices and strategies, which in turn can provide Indian enterprises a cutting edge over its competitors. This study contributes to the ERP research with special reference to ERP implementation in Indian enterprises and provides insights that may have been overlooked in previous research. Since literature on ERP

implementation and factors inhibiting it in Indian industry is relatively sparse, this research helps to narrow this knowledge gap by investigating ERP implementation at Indian enterprises. This paper identifies the critical failure factors that influence failures of ERP implementation in India.

### **1.2 Enterprise Resource Planning**

Enterprise Resource Planning (ERP) is an integrated enterprise – wide information system. It integrates the information system of an organization and automates most of its field of operation business functions. The main advantages of ERP packages are improved efficiency, information integration for better decision making, faster response time to customer queries, etc. The indirect benefits include better corporate image, improved customer goodwill, user satisfaction and so on. Other benefits are operational integration, flexibility, better analysis, planning and decision making capabilities in addition to using latest technology. ERP is a high technical cross-functional information system which is designed to improve organizational performance and competitiveness by streamlining business Processes and eliminating duplication of work and data (Kwahk and Ahn, 2010). Many businesses have adopted ERP as a tool to achieve strategic competitive advantages (Ngai et al., 2008).

### **1.3 Enterprise Resource Planning Implementation Life Cycle**

ERP implementation life cycle is the process of implementation of Enterprise Resource Planning system in any organization. It involves many steps and phases right from the initiation, planning of the implementation project, analysis, designing, realization, transition and operations. ERP implementation life cycle highlights the different phases in implementation of an ERP system. It starts right from the screening of the ideal ERP package which is suitable for the company. The steps involved in the ERP implantation life cycle are as follows:

- 1. Package selection:** This is the first step of the life cycle wherein the perfect ERP package has to be selected which fits in according to the business environment. In the screening process, the ERP packages which are not suitable are eliminated. The package has to be carefully chose and testified. The right selection will determine the success of the ERP implementation. A proper study and research should be done before selection.
  - 2. Project Planning:** A proper planning of the project implementation process should be done and designed. The resources have to be allotted and the team members have to be selected.
  - 3. Gap analysis:** GAP analysis is an important step in the ERP implementation life cycle. GAP analysis is done to analyze the current situation of the organization and the future position as required.
  - 4. Reengineering:** Reengineering is required to be done as the process of implementation involves many changes and alterations. The job responsibilities of the employees and the number of employees may be altered as well. This step is done for making the business process more efficient.
  - 5. Training:** Training of the employees is started along with the implementation process in the ERP implementation life cycle. The employees take time to get used to the new system so as to be able to run the system smoothly later. They get time at this stage to learn the software and its feature and become self sufficient in order to be able to operate later when the consultants and vendors finish and leave.
  - 6. Testing:** Testing is an important step and is performed so that the errors can be found and solved before the actual implementation process.
  - 7. Implementation:** This step is done when the data conversion is done and the work of the database is over. After the configuration and testing is completed, the actual implementation is done. One the new system is implemented, the old system is removed. The end user is trained as to how to use the new system.
  - 8. Maintenance:** Maintenance is done in the post implementation phase of the ERP
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implementation life cycle. The problems are identified and employees learn how to deal with it. Maintenance is also an important stage of the life cycle.

These are the different stages an ERP project goes through during an ERP implementation life cycle. It is important to carefully complete these steps in details in order to run the ERP project successfully. After the implementation is done, maintenance is also important and the system must be updated regularly to keep up with the changes in the technology.

#### **1.4 Reasons for ERP Implementation failures:**

**1. Doing it in the first place:** Even before implementation the company is faced with the dilemma of whether they really require it or not. Often large ERP implementation projects fail before they even start. Most of the companies in India are unhappy with their current system become convinced their reporting, integration, or efficiency problems lie in the software they are using. Convinced the grass is greener on the other side of the fence, they embark on a large, risky, and expensive ERP replacement project, when a simple tune-up of their current system, or a small add-on application, such as a better reporting system or employee portal, would address the problem at a fraction of the cost. Even a re-implementation of the same software is usually less costly than switching to another software vendor. The corporate in India are blindly trying to follow the western corporate and embarking on latest technologies.

**2. No clear destination:** If you don't know where you're going, any path will get you there. Once an organization makes the decision to implement a new ERP system, the first step is to have a clear definition of success. Often, lack of consensus on the problems being solved, the outcome desired, or the specific financial justification of the project, leads to challenges later in controlling the scope and maintaining executive sponsorship. Having a clear destination means defining the important business processes, financial benefits, and deadlines up front and making certain stakeholders agree how to address them. Without a strong definition of success, the end point becomes a moving target.

**3. A good plan or just a plan:** What Eisenhower famously said about planning (its not the plan, its the planning) does not apply to ERP systems. A detailed plan is very necessary for successful implementation. All projects of this size start with some kind of plan. However, more times than not, the plan are not realistic, detailed, or specific enough. Companies build a high-level plan with broad assumptions or underestimate the amount of business change involved. Despite how obvious this sounds, it remains the most common mistake companies make. To be a good plan, it needs to identify all the requirements and the people who are going to work on them. It needs to be at a level of detail where a knowledgeable person can visualize the work, usually in work blocks of a few days. It needs to have a logical sequence of tasks, like leaving time in the schedule to fix bugs found in test cycles. Until you have a good plan, you really do not know when the project will end or how much it will cost.

**4. Part-time project management is required:** A person experienced in project management makes lot of difference. There is some debate whether project management is a skill all good managers should have or whether the field will eventually develop into its own professional discipline, just like there are registered engineers, nurses, and lawyers. Putting that debate aside, it is clear software projects of this size need their own dedicated, experienced project managers. Asking the executive sponsor or the business owner to also manage the project as a part-time adjunct to their main role means neither job will be done well. Not just a scorekeeper, the project manager needs to be an active leader pushing for accountability, transparency, and decisiveness.

**5. Under-estimating the resources required:** The most common blunder happens with resources projected. Having a solid understanding of the internal and external resources needed to complete the project is critical. For internal resources, understanding the time commitment needed from business users, typically in the Finance, Accounting, or Human Resources departments, is one of the most commonly underestimated areas. During critical phases of the project, it is often necessary to

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back-fill the majority of transactional employees by bringing in temporary resources. This frees up the users of the new system so they have time for implementation and training. For external resources, having an agreement up-front with your consultants and contractors about the specific duration, skills, and quantity of resources needed is critical.

**6. Over-reliance on the consultants:** Too much dependability on consultant can make the team more redundant. Most ERP implementation projects involve consultants, for the expertise, best-practices, and additional resources they bring. While their outside experience is definitely helpful for a project, there is a risk that the company can become over-reliant on the consultants. The company needs to maintain control over the key business decisions, hold the consultants accountable, and have an explicit plan to transfer the knowledge from the consultants to the internal employees when the project is winding down.

**7. Customization:** This aspect makes it or breaks it for an ERP tool. Most companies these days understand that customizing their ERP system adds risk, time, and cost to the project. In fact, customizations, along with interfaces and data conversion, are the main areas of technical risk in ERP implementations. Perhaps more surprising is that in a recent survey, less than 20% of respondents implemented their ERP system with little or no customization. Despite the risk and expense of customizations, most companies find it enormously difficult to control the project scope by turning down customizations. Customizations always start out small, but incrementally grow to become the technical challenges that derail these projects. Few ERP implementations have zero customizations, but take a very firm line on justifying even the smallest ones and manage them tightly. The problem of customization has become a major problem of Indian SMEs because of their old fashioned style of working, employees resistance to adapt to new technologies and less technical knowledge.

**8. On the job training:** Experience makes a lot of difference. The typical lifespan an ERP system within an organization is 10 to 12 years. With that in mind, most employees in a company have been through one or two ERP implementations in their career. Just as you would not be comfortable with a surgeon as their first or second patient, the leaders of your ERP project, both internal and external, need to have experience implementing your specific chosen system several times. This is one of the major benefits to working closely with an outside consultant or directly with the software vendor.

**9. Insufficient testing:** Testing should be treated as the rectifying stage. When schedules get tight, reducing the number and depth of test cycles is one of the first areas that often get cut. The purpose of testing in an ERP project is not to see if the software works. The purpose is to see if the system meets your business needs and produces the output you need. Reducing testing may not leave defects undiscovered, but it certainly increases the risk the ERP system will be missing important functions or not be well accepted by end users.

**10. Not enough user training:** Management shouldn't hurry to start using the tool without adequate training by the users. Today's modern ERP systems are being used by more and more personnel within a company. Beyond the Finance and Accounting departments, modern systems also cover procurement, supply chain functions, compliance, customer relationships, sales, and much more. If the system includes human resources or expense reporting, then essentially all employees use the system. Training hundreds or thousands of users, to the right depth, at just the right time, is no easy task. Leaving training to a small phase at the end of the project makes it very difficult for users to get the training they need to understand the system and have a positive first impression at the roll-out.

If ERP systems are the nervous system of a company, then doing an ERP implementation is like brain surgery: only to be attempted if there is a really good reason and not soon to be repeated. Unfortunately, ERP implementation projects in Indian enterprises often fall victim to some of the same problems that are faced while implementing by any large, complex project in developed

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nations. However, there are some repeatable problems that good planning early in a project can work to avoid.

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