

# THE IMPACT OF CHANGE MANAGEMENT IN ERP SYSTEM: A CASE STUDY OF MADAR

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## ABSTRACT

This paper discusses Enterprise Resource Planning (ERP) - change management. A review of the research literature has been presented that focuses on the ERP change management factors. The literature is further classified and the major outcomes of each study have been addressed in this paper. The discussion is supported by a practical ERP project called Madar. The paper is targeted to investigate and identify the reasons for resistance to diffusion and why individuals within an organization resist the changes. This paper also suggests strategies to minimize the resistance if not overcome completely.

**Keywords:** - *Change Management, ERP, Risk, Integration, Case Study.*

## 1. INTRODUCTION

Enterprise resource planning (ERP) system is a business management system that comprises integrated sets of comprehensive software, which can be used, when successfully implemented, to manage and integrate all the business functions within an organization. These sets usually include a set of mature business applications and tools for financial and cost accounting, sales and distribution, materials management, human resource, production planning and computer integrated manufacturing, supply chain, and customer information (Boykin, 2001; Chen, 2001; Yen et al., 2002). ERPs provide benefits such as: improving the effectiveness and efficiency of the corporate IT infrastructure or enabling the integration of global business processes.

When implementing an ERP system, top management commonly faces an unwanted attitude from potential users for one reason or another, they resist the implementation process. Change management is required to prepare users for the introduction of the new system, reduce

resistance towards the system and influence user attitudes towards that system.

According to Hawking et al. (2004) many companies struggle during the implementation phase due to the underestimation of the complexity and the lack of experience for the change process. Schneider (1999) also reported that ERP projects often experience high costs, and that about half of all ERP projects fail to achieve promised benefits. This result mainly occurs because the managers significantly underestimate the efforts involved in managing change.

Nah et al. (2001) referred that the employees are able to make a success, or a failure, or neutralize complex systems such as ERPs. Al-Mashari and Zairi (2000) report on failure which occurs due to the employees' resistance to change. Many companies ignore that ERP implementation represents more than an incremental change. Moreover, it is a radical change of technical infrastructure, business processes, organizational structure, the roles and skills of organizational members, and knowledge

management activities. All the changes in these areas are essential for the success of the implementation (Martin 1998; Davenport 1998).

This paper contains a review of the literature on resistance to change. It identifies the causes of resistance as they are generally described and presents the suggested strategies to overcome the resistance. Furthermore, a case study of Madar is presented to show the impact of change management. At last, a conclusion will determine the core findings of this research.

## 2. LITERATURE REVIEW

There are many different factors that contribute to employee resistance. One or more of these factors can be present in the consciousness or attitude of each individual employee. Being familiar with these factors can help organizational leaders manage and overcome the resistance. The basic idea of this review is to explore various theoretical declarations made regarding factors behind employee resistance to change in relation to enterprise resource planning.

Coch and French (1948) found psychological factors such as resentment, frustration, fear, feelings of failure, and low motivation. Watson (1969) has reported factors that include preference for stability, habit, persistence, selective perception and retention, conservatism, tradition, self-distrust, and insecurity. Sheth (1981) also showed that there are two fundamental sources of resistance to innovations like an ERP: perceived risk and habit.

On the other hand, Egan and Fjermestad (2005) found that resistance does not arise because of habits gained, or because of any "social inertia", rather it was found to arise because people lack the skills or they do not understand the changes initiated by the application of the new ERP system. Kotter and Schlesinger (1979) conducted a study on the organisational change and reported that the four most common reasons for resisting change: people focus on their own interests and not on

those of the organization as a whole, misunderstanding of the change and its implications, belief that the change does not make sense for the organization, and low tolerance for change.

Kuruppuarachchi et al. (2002) declares some of the problems in the application of change management and the implementation of ERP in organizations. His analysis states that there are many employees and manager who do not prefer to change their organizational structure for ERP. According to these people there is nothing disagreeable with the company without ERP and thus there is no need for change management. However, employees who have a preference of traditional ways of management usually cannot accept the ERP formulation and thus can show apprehensiveness towards it.

As shown, researchers in this field identify different and multifaceted factors for resistance. Therefore, several strategies were suggested overcoming the resistance. For this reason, there is a strong need to make assessment of the whole environment in which the change will take place. Assessing which of the many possibilities might apply to those who will be affected by a change is important because it can help a manager select an appropriate strategy to overcome expected resistance.

Kotter (1996) identified some theoretical aspects that need to be considered before implementing any change in the current structure of a company. As considering human side of change, it is worth considering that change begins from top and proceeds one by one. In order to reinforce communication between the staff and the management, it is necessary to create ownership spirit along with agreements, and it is necessary to address the relevant culture. (Aladwani, 2001) suggests that to overcome users' resistance to change, top management has to study the structure and needs of the users and the causes of potential resistance among them, deal with the situation by using the appropriate strategies and techniques in order to introduce



ERP successfully, and evaluate the status of change management efforts.

Many researchers suggested establishing a change management team as part of the project team (Kemp and Low (2008); Nielsen (2002); Hoetzel (2005)). The team was responsible for preparing the organization for the changes. Scherer (2001) suggests introducing two teams: a project team which consists of a project manager and interdisciplinary team members composed of key users, IT specialists, and consultants if necessary. Another team called a change team which is composed of employees from all departments concerned, middle and top management, project members, and external training consultants. Hoetzel (2005) determined that setting up of a change team is surely an essential factor for managing the change and overcoming the resistance among the employees.

Aladwani (2001) successful ERP implementation requires matching appropriate strategies with the appropriate stage to overcome resistance sources. (Gupta, 2000; Cissna, 1998) refer to four elements which can help reduce the resistance are top management support; training, placement of best people on implementation; and heavy involvement of people from the field.

Al-Mashari and Zairi (2000b) and Kotter and Schlesinger (1979) have highlighted a number of strategies of change management: Involving and informing employee early enough, commitment of top management, leadership and project management, educating and supporting all users, and communication of current project status.

### 3. A CASE STUDY OF MADAR

MADAR is an ERP Project developed in King Saud University. It's a project management center initiated by KSU to manage the implementation phase of ERP in King Saud University (KSU) dealing with administrative and finance software of the university and also conduct work for external projects. In 2007, King Saud University (KSU) decided to implement the Financial, Human

Resource/Payroll, administrative communications, inventory control, warehouse, and employee service in this MADAR project.

### 4. DISCUSSION ON CASE STUDY

KSU's key objective is managing Madar in a professional way to achieve the benefits of the ERP as integration between the processes of different departments, improving the availability of the relevant information, and providing an effective decision support system.

KSU recognized that it is not enough to change the IT system but also to adapt the processes, to change workplace definitions, and to familiarize the employees with the ERP system. They realized that they were facing a high risk, not only because of the implementation costs and the technical effort, but also due to the prospect of major changes in business processes and organizational structure. This was the core reason why KSU adjusted slowly to the inherent complexity of their ERP system.

In fact, KSU knew that the Madar will affect the people within the university and can lead to project failure if not regarded as serious. Because that, they add an additional effort to change the attitude of the employees and to overcome the resistance.

A change management team was set up to develop and coordinate the implementation of a change strategy. The team was formed from employees from all departments, IT-Staff, middle and top management, project members, and external consultants who had experience in managing change. The team was responsible to make assessment of the whole environment in which the change will take place, develop and coordinate the implementation of a change strategy, ensuring working relationships within and project managers, delivering effective change programs and outcomes, and assist the transition from the old system to the new system and work with staff throughout the university to keep the informed, involved and positive about the project.

The team found many reasons behind the employee-resistance in Madar project. They found that employee resist because they lack the skills to effectively use the system. Some employees also have problems in understanding the changes initiated by the application of the new ERP systems and the changes in business processes and workflow and they do not understand its implications and perceive that it might cost them much more than they will gain. Another important reason for governing the resistance is that the middle and upper management feels that the new ERP-system redefines the organizational structures and the allocation of competencies, responsibilities and role definitions and their position may be at risk in an automated environment.

A range of change management activities was performed during the implementation of the Madar system to deal with resistance in change. Strategies included communication of ideas which helps employees see the need for and the logic of a change. Madar change management team used presentations to groups as a method to educate people about it beforehand. Another strategy that was implemented to support managers in dealing with potential resistance to change was considering direct support by providing training in new skills, and giving incentives to early adopters of the system to increase diffusion within the organization.

A key problem was the high degree of uncertainty and perceived risk involved in the acceptance of Madar by individuals in the relevant KSU departments. For example, some old employees in the finance, HR and payroll departments who have built considerable experience in learning and using the old system feel threatened by the new system. It was reported that they perceive Madar as a new system threatening to terminate their job. This perception has lead to resistance behavior exhibited by this demographic of employees, such as looking for problems and inadequacies in the new system, consistently comparing the old with the new system, and exhibiting intolerance to Madar's bugs and errors, and perceiving small

mistakes in the system as a serious issues that have a considerable impact on the way they work. Madar's change management team dealt with this case by offering extending and personalized training to those employees. This was aimed at increasing their awareness about the new system and how it works, as it has been shown that building an individual's knowledge and information about innovative systems can effectively reduce uncertainty and degrees of perceived risk in adopting an innovation (Rogers, 2003, p.35). Moreover, Madar's change management team also considered influencing these employees' attitudes by giving them more trust that their experience will add value to the system and their job will not be terminated. Furthermore, the team developed a trusted-relationship with these employees by seriously taking into consideration their views, needs and suggestions that were related to the new system and by responding efficiently to their comments and recommendations. In rare cases of resistance, the Madar change management team has resorted to the option of requesting that the employee is replaced if it was perceived that their resistance is impacting the chances of successful diffusion of the new system within a department.

## 5. CONCLUSION

Successful ERP implementation projects are less about technology and more about people and processes. In fact, resistance to change can take many forms and many causes of resistance are listed in enterprise resource planning research. Top management should, therefore, proactively deal with this problem instead of reactively confronting it. Prior research has recommended that the preparation for the implementation of ERP system must start much ahead of time and a pro-active strategy must be adopted to educate and train the employees and to minimize the causes of resistance that will be a part of the system due to the change management. This paper has presented a case study demonstrating effective strategies in reducing uncertainty and perceived risk in individuals involved in the transition to new ERP systems, which in turn

decreases –even though not completely eliminates- resistance to change.

In general and in the case of Madar, it is important that all affected users of the ERP system must be made aware of these changes and why they will have to occur. Therefore, it is important to have the top management commitment and understanding the change because they cannot convince others about the change if there are do not understand it.

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