The Chang Management Strategies and Processes for Successful ERP Implementation: A Case Study of MADAR

Hala M. Al-Shamaln, and Abdullah S. Al-Mudimigh

Department of Information System

College of Computer and Information Sciences

King Saud University, Riyadh

Kingdom of Saudi Arabia

halshamlan@ksu.edu.sa, mudimigh@ksu.edu.sa

Abstract. Top management usually faces an unexpected attitude from potential users during implementing an enterprise resource planning (ERP) system. For one reason or another, they resist the implementation process and may cause the failure of ERP system. Therefore, top management should be deal with this problem using effective change management strategies and processes. In this paper, we discuss the successful change management strategies and processes in literature. A case study of MADAR has been presented to discover the strategies and processes used for the successful Enterprise system

Keywords: Chang Management, ERP system, change management strategies, change management processes, MADAR.

1. Introduction

Successful ERP project implementation is not easy nor an inexpensive or risk-free venture task [5, 8, 9]. Implementing an ERP system package causes vast change that needs to be managed carefully to get the full advantages [5]. Also, ERP implementations have been plagued with high failure rates and inability to realize promised benefits. The failure rate has been estimated as 60–90%. Some prior studies indicated that a major reason for failure was the resistance of the user to change [1, 2, 4, 5, 7, 8, 9]. Change management involves the effective balancing of forces in favor of a change over forces of resistance [1, 10]. There are many important processes and tools in change management.

The purpose of this research paper is investigating the effective and more useful change management strategies, and what are the more useful and significant processes and tools for change management to implement successful ERP system. After we discuss the strategies and processes presented in previous studies, we take successful enterprise system (MADAR) as a case study and we explore the strategies and processes has been used in this system, and we measure the impact of change management in employees.

The rest of this paper organized as follow, In Section 2, we illustrate the change management definition, strategies and processes, In section 3, the MADAR case study is presented. In fourth section we give our research conclusion.

2. Change Management

In this section we illustrate the meaning of change management term especially in ERP implementation , and we discuss the strategies has been used in change management. In section 4, we present the important processes and effective tools in ERP change management.

+

Corresponding author. Tel + 966504437599fax: +96612309954
E-mail address: alshamlan_h@yahoo.com.

2.1. Definition

It is very important to understand what is change management in ERP implementation before we discuss the strategies, processes, and tools has been used for change management. Change management is a primary concern of many organizations involved in ERP project implementation [1,5,10]. The authors in [5] identify change management, in terms of adopting an ERP system, as activities, processes, and methodologies that support employee understanding and organizational shifts during the implementation of ERP systems and reengineering initiatives. The author in [1] point out that there are two fundamental sources of resistance when implement an ERP system: perceived risk and habit. Perceived risk refers to one's perception of the risk associated with the decision to acceptant ERP system. Habit refers to current practices that one is routinely doing. In order to reduce employees' resistance to ERP implementation, top management of the organization must employ the appropriate set of strategies to counter and analyze these sources of resistance.

2.2. Change Management Strategies

It is very important to adopt the right strategic changes. Aladwani [1] suggested very effective and popular change management strategies, that the marketing concepts and strategies are adaptable to the ERP implementation context. Moreover, this strategies is integrated, process-oriented conceptual framework which is consisting of three phases : knowledge formulation, strategy implementation, and status evaluation 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 in the first phase (knowledge formulation), also must be deal with the situation by using the appropriate strategies and techniques in order to introduce ERP successfully; this is done in the second phase (strategy implementation), and finally status of change management efforts in the third phase (status evaluation).

Prosci's [11] model for organizational change management process. The Prosci's [11] model is similar to change management strategies presented in [1] and we mentioned in previous paragraphs which is consist of three main phases: Preparing for change, Managing change , and Reinforcing change. The first phase in Prosci's [11] methodology is aimed at getting ready. It answers the question: "how much change management is needed for this specific project?" The first phase provides the situational awareness that is critical for effective change management. The second phase of Prosci's [11] process is focused on creating the plans that are integrated into the project activities - what people typically think of when they talk about change management. The third phase of Prosci's [15] process helps project teams create specific action plans for ensuring that the change is sustained. In this phase, project teams develop measures and mechanisms to see if the change has taken hold

2.3. Change Management Processes

The efficient change management processes lead to success an ERP system.In essence, the authors in [5] point out that the tools of management of change are leadership, communication, training, planning, and incentive systems. They urge that these tools can all be used as levers and can move great obstacles with a minimum of efforts when applied correctly. Moreover, Training, re skilling and professional development of the IT workforce is critical and it is important driver of ERP implementation success [1, 3]. In general, the tools, methods, or processes has been used in change management depend on the organization need and the employee culture in other word, each researcher or authors use different methods than other. But, as we illustrate in this section there are some tools or methods used by all researcher like training, communication and commitment because it is very effective and critical for change management in ERP implementation.

3. Case Study of MADAR

MADAR is an enterprise system working in King Saud University dealing with all administrative software of the university and also do work for outer projects. However, MADAR system is one of successful enterprise system because of this reason we want to discover and investigate the strategies, methods and processes has been used for change management in MADAR implementation. On the hand, we gather some practical information about the reactions and acceptance of change management for MADAR system to measure the success range of MADAR change management strategies and processes.

3.1. Research Methodology

The analysis that has been scrutinized here, are initiated through the relevant interviews and distribution of questionnaires. The data collected from these sources declare some of the primary aspects change management strategies and processes adopted in MADAR system. The purpose of interview is investigate the strategies, tools, and methods has been used when implement MADAR system and what are the main difficulties faced by the MADAR top management and also our main target of this study is to discover that which change management strategies and methods we mentioned previously adopted in MADAR system. The interview was conducted with managerial expert who has already implemented MADAR system in King Saud University and have attained success. In order to derive and measure the effective and success of change management strategies and process apply in MADAR system by measure the employee's reactions and acceptance of change management for ERP, the data collected from the distributed questionnaires answers to most of the queries. Therefore, the questionnaires were distributed among some of king Saud University mail and female staff with different age, culture, and education level also from different departments. The results derived from the questionnaires and interviews were discussed below.

3.2. Interview result

The interview was conducted with manager of "MADAR projects" he is having long-term experiences with MADAR enterprise system and King Saud University. And are very great clear about their strategic planning and declarations. The data collected from the interview shows that the implementation of MADAR enterprise system has been popular by most of the organizations and it adds more well managed structure in the application of developmental strategies of the company. The data collected from our interview are presented below:

At the beginning and before implement MADAR, MADAR officers make pre implementation step and make orientation session to study and determine the employee computer skill and experience especially in web application. The pre-implementation step takes eight months to study and determine who are accepting the new system and who are resisting and how much they show their resistance. Also, before implementation they make very impressive awareness about the advantage of MADAR among all university departments using university website, magazine, and by sending email to all university employees. Moreover, the users voted to select best name for new system and they select MADAR as name of new system.

Based on the pre-implementation step, there are many resistance people and the male employees are more resistance than female employees. However, the old style people, technology enemy, low education level employees are more resistance than other. The reasons of resistance may be political issues, special benefit for resisting a new system, afraid from risk and make mistake, or depend on the person type (some of people does not like the change). Moreover, Manager pointed out that the contactors employees have work experience more than 10 years more resistance than other employees.

Before implementation, MADAR officer make gap analysis then make acceptance test for selected key user in order to authorize MADAR as enterprise system.During implementation, MADAR officers select the more enthusiastic employee in each department to become MADAR representative and give him more training. Moreover, They make more than 300 training session until now, and give 2000 SAR, or laptop for distinct trainee. Also, they give all trainees attended certificate. In other hand, MADAR officers involve the resistance employees in decision making and give them opportunity to attend the meetings to solve the resistance employee's problem and transfer them from resistance to change.

Moreover, there are very impressive communication between end user and MADAR technical support by phone (4 available lines), email, web site, forum, special visiting from MADAR top manager, and lunch parties with all employees. Also, they assign project manager for each department, who is responsible for assess the employees when they face any difficulties.

Manager pointed out that the key point for the success of MADAR is the great support and commitment from top management especially from KSU rector. However, he said for MADAR officer "Pay the time of person, if he did not has a time ".

After implementation, the MADAR officer evaluates the development of MADAR job performance for each week employees. The evaluation done by, weekly meeting to discuses the statues of employees, and generate report to determine who are employees dose not work efficiently.

3.3. Questionnaires result

A questionnaire, comprising 18 questions, was designed to measure the impact of change management strategies and processes on End-User.The questionnaires were distributed among 40 employees) from different departments (male/female employees some of them used MADAR system and other did not used). These selected people were of different age groups and were with different job experiences. The feedbacks received from these people were based on their personal interpretations and the amount of experiences that they have collected till date. We received only 31 questioners: 20 from female employees, and 11 from male employees. However, 12 of these employees (male/female) did not use MADAR enterprise system. The questioner results as follow:

At the beginning of MADAR implementation, 70.90% face difficulties when they using MADAR.

96.7 % did not face any difficulties now and they found help and assessment from MADAR technical support.

Also 96.7% observed that the job performance is clearly advanced from beginning of MADAR implementation until now.

90.3 % were benefited form MADAR training.

93.5 % agreed that there is awareness about MADAR feature and benefit before Implementation.

61.2% agreed that the number of training is adequate and suitable for all employees.

96.7% agreed that the interaction and communication between MADAR technical support and employees is impressive.

87.1% agreed that the MADAR technical support solve all employees problem.

54.8%, agreed that there are awards and catalysis for interactive and distance employees.

100%, believed that MADAR system help them to do the job in easy and effective way.

100% not prefer the traditional system before implement MADAR to do the job.

75% of unused MADAR, believe that the risk and frighten to do mistake are prevent theme to use MADAR system.

0% did not try to train and learn about MADAR, because he/she expects MADAR failed.

91.7% of unused MADAR did not have computer skill and experience that is make obstacle to use MADAR.

0% thinks that the new technologies are no effective in management fields.

90.3 believed that they spent many years doing an excellent job without help from MADAR system.

96.7, agreed that are no need for MADAR because they now how they do the jobs efficiently.

93.5 believed that employee's jobs will be threatened by the MADAR system.

3.4. Case Study Contribution

Based on data collected from interview and questioners, we contribute that MADAR implemented among three phases: pre-implementation phase, Implementation phase, and evaluation. In pre implementation phase, MADAR experts make studying and evaluate the staff, awareness, and staff preparation. In Implementation phase, they make training session for employee, apply good communication with end used, involve the resistance employees in decision making, and assign award for distinct employees. All this done in impressive commitment and support from top management.

However, based on questioners results, we invent that the change management strategies and methods adopted in MADAR implementation was very successful because 96.7% of employees who are using MADAR system did not face any difficulties, and the job performance for those employees are clearly

advanced from beginning of MADAR implementation until now. Also, 100% of employees believe that MADAR system help them to do job in easy and effective way and they totally did not prefer the traditional system. In addition, we conclude from these results, that a risk and unfamiliarity in computer and web application are main obstacles that prevent the employees to use MADAR enterprise system.

4. Conclusion

In this paper we provide a very significant and very explicit contribution towards the change management factors for ERP implementation. It is through this research that there will be an appropriate process and strategies for the selection of the lawful kind of change management for achieving better ERP results. However, successful strategies should be consist into three phases: pre-implementation phase, implementation phase, and evaluation phase .The preparation and studying done in pre implementation phase .In implementation phase should be apply the change management activities and processes such as: training, and communication. In evaluation phase the top management must be monitor the employee's job performance. Moreover, top management commitment, communication, and training are more critical change management processes in ERP implementation.

The last in this research, we take MADAR, which is successful ERP system as case study to see what are the change management factors and strategies has been used in MADAR implementation, and what is the impact of these change management strategies in employees .We investigate that MADAR enterprise system use three phases change management strategy and adopt all critical processes and methods like: top management commitment, communication, training, involvement, and awareness.

5. Acknowledgment

6. References

[1] Aladwani. A. (2001),"Change management strategies for successful ERP implementation", Business Process Management Journal, Vol. 7 (3), pp. 266-275

[2] Lashunda. M. (2010), "Impact of Change Management Consideration in the Implementation of ERP System", UNDB

[3] Fiona F., Nah L., Janet L., (2001), "Critical factors for successfulimplementation of enterprisesystems", Business Process Management Journal, Vol. 7, pp. 285-296

[4] Al-Masher. M., Al-Mudimigh. A. S., (2003), "ERP implementation: lessons from a case study", Information Technology & People, Vol. 16, pp 21–33.

[5] Al-Mudimigh. A., Zairi. M., Al-Mashari M., (2001), "ERP software implementation: an integrative framework", European Journal of Information Systems. Vol.10, pp 216–226.

[6] Ron S., (2008),"Multivariate methods in enterprise systemimplementation, risk management andchange management", Int. J. Risk Assessment and Management, Vol. 9, No.3

[7] Kee-Young. K., Jae-Nam. L., (2008), "The role of readiness for change in ERP implementation: Theoretical basesand empirical validation", Information & Management Journal, Vol.45, pp 474–481.

[8] Jaideep. M., Dinesh. M., Manu. M., Gunasekaran. A., (2002), "Successful implementation of ERP projects: Evidence from two case studies", Int. J. Production Economics Journal, Vol.75, pp 83–96.

[9] Umble J. E., Haft. R. R., Umble. M. M., (2003),"Enterprise resource planning: Implementation procedures and critical success factors", European Journal of Operational Research, Vol. 146, pp 241–257.

[10] Ngai. E.W.T., Law. C.C.H., Wat. F.K.T., (2008), "Examining the critical success factors in the adoption of enterprise resource planning", Computers in Industry Journal, Vol.59, pp 548–564.

[11] Prosci," (2004), Prosci's Change Management Maturity Model"