Importance of Selection & Evaluation Stages in ERP Systems Implementation

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Abstract— As the competition among the organizations and the companies to present their products goes to globalized path, they now are to take part in the global markets. One of the information technology and communication tools that play important role in the information structure in the organizations and the one which is the basic step in taking part in global markets is the Enterprise Resource Planning (ERP). The system is the latest and the most effective programming tool for the whole enterprise resource and includes a comprehensive information, engineering and management system which meets all needs of the organization through process perspective (to reach the organization needs) [1]. But the importance of the evaluation and selection stage of a suitable ERP as the best solution will not be less than implementation of it. What is done in selection and evaluation stage is described in this paper.

Keywords— *ERP system selection; ERP system evaluation; ERP implementation*

I.   INTRODUCTION

As there is vast advertisement in the field of selection and implementation of ERP, many companies assign experts to evaluate the existing ERPs in the market. They are to study the methods and select the right solution and try to buy them or implement them. When a company decides to buy an end ERP solution, what matters is the decision of the group.

What must the company do before the final selection and whiles the research group studies the conditions? What will be the fate of the projects? How would be the new products? How will the demands of the customers be answered? What will research, development, marketing, depository and logistic unit do? How will the human resources welcome the changes? How is it possible to enter ERP in organization with the least harm? How will the path flattened for the programs of the organization? What could be done to prevent down of ERP? These are the questions which will be answered in this paper.

II.   WHAT CAN BE DONE BEFORE AND AFTER IMPLEMENTATION OF ERP

According to the experiment of IRICO Company about implementation of ERP and the experiment of the writer as the consultant and researcher in ERP [2], and also according to what the big organizations consultants say about the problems of implementation and execution of the systems [1, 3], there are something which can affect the speed of implementation of the system which are as follows:

a)   *Identifying the organization processes and documenting by the help of the personnel:*

For successful implementation of enterprise resource management systems, the personnel should suitably understand the needs and the processes of the system [4]. It is needed for any operator to know what he will do, and what he does is the result of his late works. If the operators take part in the organization processes, they will think of the organization as a part of themselves and will defend the products. So, they will understand the need for changes at the implementation time. But if the workers do not clearly understand the processes, they will face problems in execution of the new system. So, as the introduction to implementation the following two steps are needed: [4, 5]

1- Forming a team of analyzers and experts in the organization.

2- Starting analyzing the activities in the company by the help of the workers.

b)   *Making an organizational perspective through ERP elementary education:*

Making the sellers, consultants, organization headmasters, IT experts and workers ready to answer the questions like: What is ERP? According to studies, what will happen after implementation of ERP? How much time is needed for implementation of ERP? How will the responsibility of workers change? How will the company benefit the ERP? Answering the above questions causes the managers work to the same goals and go over the obstacles and support the implementation of it [6].

c)   *Trying to employ and maintain the personnel who are flexible with high learning power:*

Having high esprit of working together and flexibility is of the factors of selecting the right person. The personnel who use the same method in many years think that if the system changes; they will no longer have the power they had before. So they rest the changes and will be the people who prevent success of the system. But the ones who welcome the changes and are flexible to the changes, are grouped as dynamic personnel. They are the ones that   the organizations must take care of [5]. Taking into

consideration such points in employing the personnel make the execution of the projects easier.

d) Attending to customers service and the daily affairs in the company:

Selecting the right ERP which is compatible to the company and its business, and also all factors which it takes into consideration like how to support, value, and etc, is a time consuming process. As the personnel number who looks for the best organizational solution is not high and as there is no time limit identified for selection of the right ERP, no corruption must come about the daily work processes of the organization.

The other personnel should work hard to service the customers [7]. Customer satisfaction is the most important factor in any ERP organization [8].

e) Selecting and equipping the sectors of the units to start ERP by them:

Experiments show that the companies tend to start ERP by production, sales and human resources units [1] . Maybe it could be said that tendency of the systems is to reduce the benefiting time in the systems because ERP cause the systems reduce demand delivery time and increase the production volume and reduce storage. It is also effective in reducing the expenses of providing and distribution. But it must be taken into consideration that the capital return will happen in some months after implementation (which is almost 8 months) [7]. So, the directing manager of the company must select the units according to the personnel number, the clearance of the processes and also the effectiveness in the company [5] .

f) Educating the meaning and the tools of management of the project to the head masters and experts taking part in the project:

How to manage a project is an important factor in the success or failure of ERP projects. If the implementation team members completely know the project management stages before implementation and the management tools well , it will completely change the project execution phase [4].

g) Forming implementation group and identification of the role of the members in ERP end stage and after it:

It is necessary to describe the expectations of the manager from the members about the system and tell them that their responsibilities will never end [1]. It must be attended that the members of implementation team are very valuable for the organization because they have the right information about sales, production and human resources and also they can do many things having executed ERP. Reporting, educating the personnel, understanding the changes in the processes and customization are what the team do for one or two years after implementation.

h) Predicting return of the capital cause by the end of ERP:

Usually it is the hardest work to make the managers understand that the changes are beneficiary. The base analyzers are the people who can affect the value of the shares in ERP and give their perspective before selecting the solution. The results of researches on 63 companies show that after 8 months of ERP, the benefit of the execution becomes clear (31 months after EPR). According to this research, ERP causes the companies save almost 6.1 million dollars annually. So, the capital return time will be favorable [9].

So it is expected that before the whole execution ends, the company face a high rate of decrease in capital. Maybe the managers will try to use a special method to prevent the decrease which will help the company benefit more after execution.

i) Making the company be costumed to saving method to be successful in problem stage:

It is natural that after ERP, the organization will face new record in doing jobs [7]. The errors of the systems and the ones in the organization processes must be solved in this stage and the education programs must be repeated. Maybe there will be need for personnel changes. If the predictions are systematic, the period could be shortened but it is not possible to delete it. It is necessary to give related information to the personnel to program well for passing the period.

j) Providing suitable hardware equipments:

The hardware equipment needed depend on company job and the geographical position of the company. So, the suitable hardware infrastructure with high quality and powerful servers will affect the system quality [4] but the old work stations must not be changes to the newer ones till the ERP is not selected. Selecting the hardware of work station depends on ERP but the hardware infrastructure is very important. So, creating a powerful network platform is the first step that must be considered before selecting ERP. Maybe some companies will need wireless network or more powerful telecommunications infrastructure.

III. CONCLUSION

Although according to the experiments it is understood that the infrastructures in the organizations and the companies of under construction countries are suitable for ERP systems, paying more attention to implementation of it and evaluation of them is the best solution, the importance of which is not less than the implementation phase. It is the factor affecting the implementation and preventing the ERP systems. So, more reviews to 10 cases referred to in section (II), before and during the ERP implementation, Will pave the way for the success of institutions and leading organizations in this area.

REFERENCES

[1] Banijamaal,S.M, 'Provide a Framework to Assess the Readiness of Iranian Organizations Implementation of ERP',Tehran, 2010.

[2] Hatamizadeh.Alireza , Aliyev Alovast Qaraja Oglu, 'Feasibility Study of ERP Implementation in Iran Industry', American journal of Scientific Research, 2011.

[3] Al-Mashari, M., Zairi, M., 'Enterprise Resource Planning (ERP) implementation: a useful road map', International Journal of Management and Enterprise Development, Vol. 3, Nos. 1–2, pp.169–180, 2006.

[4] Antonucci, Y.L., Corbitt, G., 'Enterprise systems education: where are we? Where are we go?' Journal of Information Systems Education, Vol. 15, No. 3, pp.227–23., 2004.

[5] Altekar SatNam , 'Enterprise wide Resource Planning Theory and Practice', 2005.

[6] Botta-Genoulaz, V., Millet, R-A., 'A classification for better use of ERP systems', Computers in Industry, Vol. 56, No. 6, pp.573–587, 2005.

[7] Buonanno, G., Faverio, P. , 'Factors affecting ERP system adoption: a comparative analysis between SMEs and large companies', Journal of Enterprise Information Management, Vol. 18, No. 4, pp.384–426, 2005.

[8] Bendoly, E., Bachrach, D.G. , 'ERP in the minds of supervisors: joint roles of task interdependence and cultural norms', International Journal of Operations & Production Management, Vol. 26, No. 5, pp.558–578, 2006.

[9] Hawking, P., McCarthy, B., 'Second wave ERP education', Journal of Information Systems Education, Vol. 15, No. 3, pp.327–332, 2004.