The Effect of Educational Level and the Organizational Level of Organizational Maturity in the Success Rate of it Projects in the Organization

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ABSTRACT

Designing a model that can measure the organizational maturity level in the range of IT and related requirements across the enterprise before any action and answer concerns raised before any action completely transparent, the effectiveness of the measures taken would be certainly very useful and effective. Also, in recent decades, IT is upheld with almost all aspects of our lives, especially professional working life. The use of information technology in various fields, and the rapid growth of the use of computers in organizations to assess and acceptance and rejection of IT in organizations has particular significance so that IT's role in achieving an organization's strategic development objectives has been discussed. The research method used in this research is descriptive survey and the type of applied research. The statistic population, are experts in the field of information technology and sampling in this study was non-random sampling (100 experts from the organization). Because of the variable quality of the Friedman ANOVA test was used to test hypotheses and SPSS software was used for data analysis. In general, here we have tried to evaluate the impact of IT organizational maturity and organizational maturity model for assessing the success or failure of the organization's IT group. Reliability and internal consistency reliability test was 0/731. And the results suggest that organizational maturity of the success and failure of information technology is impressive.

Introduction

Designing a model that can measure the organizational maturity level in the range of IT and related requirements across the enterprise before any action to establish quality management system and answer concerns raised before any action completely transparent, the effectiveness of the measures taken would be certainly very useful and effective. Organizational maturity reflects the understanding, preparedness and expertise in the implementation of various management systems in organizations. Up to now Organizational maturity has been assessed from different aspects. Organizations at different levels of maturity generally have features that with respect to functionality and compliance with established relationships and dependencies between them and the evaluation are done. The maturity in project management presents existence of appropriate infrastructure, tools, techniques, processes and even fit corporate culture and means to apply a standard methodology and related processes to increase the likelihood of successful projects. Also today the expansion of trade, globalization, and rapid technological changes in organizations has led to survival and competitive advantages are the flexibility necessary. Need of flexibility of change is rapid that is not possible without information as a result information as a valuable source of any organization is considered along with other factors.

Every company or organization has three main core decision-making process, information flow and material flow that technology on all three cores that may have effect. The major impact on the efficiency and effectiveness of IT processes led the chance to invest in information technology to continuously increase. However, in recent decades the success rate of this technology is very unsatisfactory and has caused a lot of research done in this area. Considering the above, the question is debated that whether we can present an appropriate organizational maturity assessment model to evaluate the success of IT projects in organizations. Today the topics and issues that are raised in the newest areas of direct and indirect way to success or failure of information technology projects in organizations concerned. Because every one of the concepts, techniques and new ways of working to achieve better organization and better opportunities for the realization of philosophy takes place. The nature of information technology in a way that on one hand the losses caused by the failure of the projects necessary to achieve it would be great for organizations and on the other hand, because of its special features, such as knowledge base and changes and fast, access is difficult. Therefore, to achieve effective management of business critical IT needs of organizations in the world today. The organizational maturity in project management can make structural changes to maximize the efficiency of human resources as well as synergistic result. (Harold Kirzner, 1994). The aim of this study was to evaluate the impact of organizational maturity assessment is to evaluate the success of IT projects. Existing theories based on the conceptual framework of this study can be shown as follows:

The relationship between measures of organizational maturity and success or failure of IT within the context of the above discussion and the standards of organizational maturity can IT make better decisions helpful. A brief overview of the literature and hypotheses has been proposed and then describes the variables used in the conceptual model presented. In the next

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part of the study, samples and statistical findings and recommendations of the study will be discussed.

Theory and review of the literature

Alfred Chandler believes that organizations today cannot be left in the hands of administrators. Due to rapid changes and developments, extensive and unbridled in all fields of science in recent years, management is efficient for the organization. Undoubtedly, in line with the progress the only organizations are capable that are with experienced mature workers who are trained as well as the creative director who spent his idea to fertilize their organization. In fact, each organization according to its own characteristics requires special procedures leadership style; one of these features is the fitness level staff and their organizational maturity, the manager with the knowledge that it can take appropriate style. (Ghouchani, Farrukh 0.1391).
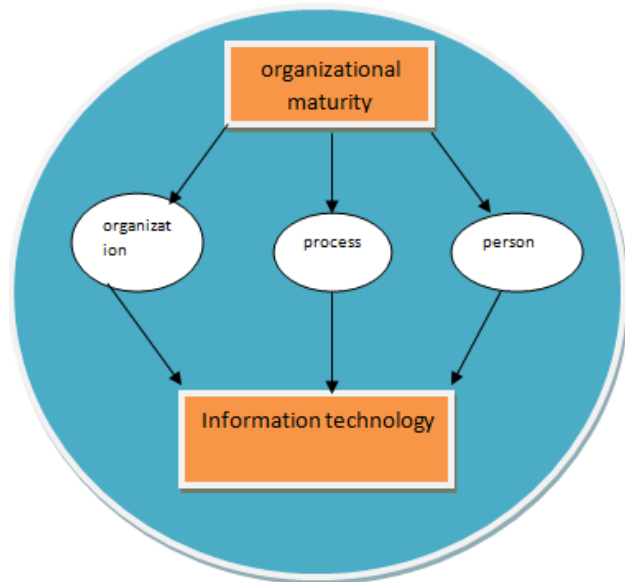

Figure 1. Conceptual Framework of Research

Organizational maturity or readiness of employees in the organization, according to Hersey and Blanchard is with function of three factors:

1- level of education and expertise, 2-level of living, 3 industrial experiences. Maturity is of two main parts; ability and willingness, "capable" of knowledge, experience and skill that a person or group has a specific task or activity, and "desire" in the sense of confidence, commitment and motivation that the individual or group need for their successful completion of a task or special activity. Broadly Speaking, Maturity in project management indicates appropriate infrastructure of tools, techniques, processes, and even fit corporate culture and means for using standard methodologies and processes related to the project will increase the likelihood of success. Also from the perspective of project management companies are divided into two categories: First, project-based organizations and second, not project-based organizations. The term used in the production cycle of IT applications, processing, retrieval and dissemination of information-based and a process with a new and unique system that makes unrepeated works be analyzed so effectively in addition, because some of the uncertainties and variability is also remove (Miller, 2002). Overall, information technology is to collect, organize, disseminate and store information in the form of text, pictures or numbers by means of computer and telecommunications (Fahimi, 2004).IT is application techniques, algorithms, models and concepts for processing, storing and retrieving information in the most appropriate and safest status.

IT before a hardware system and a set of patterns is a thought and cultural system and can be called a culture of information.

- Lai Wai and colleagues (2011) examined the impact of information technology and found that information technology has the impact on quality management. -Alkhtyb (2010) conducted a study entitled "Measurement of the maturity level of knowledge management in organizations". The purpose of this study was to develop a model to measure the maturity level of knowledge management in organizations. This study defines knowledge management and factors affecting operating in the field and then has to prioritize. Then a knowledge management maturity model with 8 and 42 variable factors was identified in this study and is presented. - Chen (2010), organizations that are in a higher level of alignment can have higher levels of performance and value of IT-based business they acquire. - Safari and colleagues (2012) examined the quality management of their information technology support. The results showed that quality management of IT organizations are generally affected because the organization is largely dependent on the flow of information.

- Mohammadi (1999) believed that information technology can be used as a powerful tool to improve the quality and efficiency of the employees.

- Manian et al (1999) examined the relationship between IT and business alignment with organizational performance of companies engaged in information technology. The results showed alignment between IT and business is a principle to achieve improved performance.

The hypothesis of the study

The main hypothesis-pattern of measuring organizational maturity has impact in the evaluation of information technology projects.

Secondary hypothesis (1); the use of appropriate strategies has impact on organizational maturity model and implementing appropriate model.

Secondary hypothesis (2); Encouraging senior managers in use of organizational maturity assessment model has impact to examine the success of IT projects.

Secondary hypothesis (3); organizational maturity, from three aspects of the individual, process and organization has impact for evaluation of the information technology projects.

Research Methodology

This study sought to assess the organizational maturity model suitable for evaluation of IT projects in organizations. This study, in terms of target is practical and in terms of the data collection is descriptive-survey. Data collection method includes the two methods of library and field. The questionnaire of this study to provide organizational maturity assessment model to evaluate the success of IT projects and information of importance of each of them in this area has been conducted. To ensure the reliability of the questionnaire the views of the supervisors and expert were used. For assessing the reliability of questionnaires, Cronbach's alpha was calculated for the total separation of software and all six levels.

The population and sample

The population of the investigation includes the Ministry of Economic Affairs and Finance, including 100 people working in the modernization and development of office, treasury, IT and Information Centre and Central Secretariat. Sampling in this study was non-random sampling. This method of sampling is to obtain the necessary information from certain individuals with relevant knowledge and can provide information (Kunar, Katherine 2006).

Table (1-3). Cronbach's alpha coefficient of the questionnaire levels

Cronbach's alpha coefficient	Level
0.728	Zero level : Incomplete, insufficient
0.831	Level One :: implemented, basic, ad hoc
0.823	Level two : Managed and repeatable
0.794	Level three : Stabilized and defined processes
0.746	Level four : Managed, measured and predicted
0.727	Level five : optimized
0.731	The reliability of the questionnaire.

Table 1. Ranking based on Friedman test

$Asymp. sig$	Freedom degree	$(Chi\ Square)$	$(Mean\ Rank)$	Index
0.000	2	26.612	2.87	Personal factors
			2.23	Process factors
			1.94	Organizational factors

Table 2. Ranking of the six organizational maturity assessment levels based on Friedman test

$(Asymp. sig)$	Degree of freedom	$(Chi\ Square)$	$(Mean\ Rank)$	index
0.000	5	170.600	1.38	Level zero
			3.32	Level 1
			4.12	Level 2
			3.91	Level 3
			4	Level 4
			4.28	Level 5

Table 3. binomial test results to gauge the impact of organizational maturity to the success of IT projects

Error level= 0.05				
Test result	Significance level	Test ratio	Observed ratio	The success of IT projects
Confirmed	0.000	0.5	0.83	Gauge pattern of organizational maturity

Table 4. Binomial test- results of appropriate strategy impact on the success of IT projects (innovation capital)

Error level= 0.05				
Test result	Significance level	Test ratio	Observed ratio	The success of IT projects
Confirmed	0.000	0.5	0.91	Capital of Innovation

Table 5. Binomial test- results of organizational encourage impact on the success of IT projects (structural capital)

Error level= 0.05				
Test result	Significance level	Test ratio	Observed ratio	The success of IT projects
Confirmed	0.000	0.5	0.91	Structural Capital

Also among non-random sampling methods, sampling specialist (judgment) has been selected. This method is to collect data and views of people who are under investigation that are the most experienced (dastjerdi and Ghatreh Nabi, 1999). The main tool for data collection in the study was a questionnaire, which is derived from the questionnaire of cmmi and Koolkareni and Friz Group, which was distributed among 100 people of organization.

Validity and reliability

Cronbach's alpha reliability calculation method is most commonly used measurement scales consisting of multiple choices, especially software that most researchers in the humanities and social sciences are using it. The Cronbach's alpha is used to measure internal consistency of statements of an index and it is used mainly for the questionnaires that its item or questions are usually designed as Likert and its answers are with the multiple choices (Alpha, Shavleson 2004). To calculate Cronbach's alpha coefficient at first, the variance of each sub-questions of questionnaire (or subtests) and the total variance should be calculated. Then use the following formula to calculate the coefficient alpha.

$$r_a = \frac{j}{j-1}\left(1 - \frac{\sum S_j^2}{s^2}\right)$$

That in which,

j = The number of subsets of questions of questionnaire or test

S_j^2 = the subtests variance of j

S^2 = variance of whole test

The reliability test results in the table below is presented in six separate levels.

Results and analysis of data

Using Friedman priority three factors: individual, organizational and process are examined.

H_0 : Same average scores between groups

H_1 : Average grade are not the same between groups

As you can see in the above table the value of Chi-square with 2 degrees of freedom and the significance level is 0.000 that indicates the hypothesis rejection. According to the test results of individual factors, factors of process and organizational factors in order of preference have the largest impact on the success of IT projects. In the following table there are results of Friedman test rating for six levels of organizational maturity assessment model to evaluate the success of IT projects.

The test results showed that there is a significant difference between the levels of organizational maturity assessment model for all indicators. In other words, all the measures in place through six levels are significantly different (). If the value of the significant level of the Index or the agent is less than 0.05 the null hypothesis is rejected and the other is OK.

According to Table 4 it can be expressed the first hypothesis is place at level 0/99 indicating there is a significant relationship.

According to Table 4 it can be expressed the first hypothesis is place at level 0/99 indicating there is a significant relationship.

According to Table 5 it can be expressed the first hypothesis is place at level 0/99 indicating there is a significant relationship.

Also with respect to the test results we see that each of three aspects of the individual, process and organization has impact for evaluation of the information technology projects.

Conclusions

In this study, various tests were used to examine the relationship between theories that further analysis of the results is as follows:

First hypothesis: organizational maturity assessment model has impact for the evaluation of information technology projects success. Since the test ratio is 0.5 and is zero at the error level 5% of significance level this hypothesis can be confirmed.

The second hypothesis: the use of appropriate strategies has impact in the evaluation of IT projects success (innovation capital). Since the test ratio is 0.5 and at the error level 5% of significance level zero this hypothesis can be confirmed.

The third hypothesis: encouraging the senior managers in the use of organizational maturity assessment model has impact to evaluate the success of IT projects (capital structure). According to the test results, it is clear that each of these three factors is able to monitor the success of IT projects. Since the test ratio is 0.5 and is zero at the error level 5% of significance level this hypothesis can be confirmed.

The fourth hypothesis: Organizational maturity from three aspects of the individual, process and organization has impact for evaluation of the information technology projects. Given the significant level of all three factors is less than 0.05, overall the fourth hypothesis is confirmed with a confidence level of 99%. Therefore, individual, process factors, and organizational factors have positive effects in the review of the success of IT projects.

The main factor in the coordination of organization is relevant, appropriate and timely information. So having the right information technology systems is of the requirements of different businesses. But if the data structure has no enough coordination with organizational maturity it will act as a barrier for the activities of the organization .

So the results suggest that the managers of organizations should pay attention to the issue so the study of information technology levels and coordination of it with the organizational maturity is very important to improve it. Also the organization's maturity represents the current state of organization that is necessary.

Also according to the hypothesis test showed that organizational maturity, of three aspects of the individual, process and organization has impact for evaluation of the information technology projects.

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