Change Management and Knowledge Management, Which relation?

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Abstract

Today, Change Management has turned to a knowledge which is vital to the success of the organization's projects. Change Management plays an important role in feasibility and success of Knowledge Management whose implementation brings significant changes at various levels of the organization. This article analyzes applicability of Knowledge Management as a new change in the organization. A case study realized by using questionnaire at Iranian Research Organization for Science & Technology. The results of evaluation at organizational level show that cultural resistance is higher than the other obstacles in implementation of Knowledge Management. This means that during the implementation of Knowledge Management there would be a lot of resistance from the people. While people seem to welcome this project and change and find it effective in organization's growth. In other words, the high square in barometer of changes shows that there are positive signs to accept the change and implementation of Knowledge Management in organization; but before that the cultural aspects influencing knowledge sharing in the organization should be studied in depth.

Keywords

Change, change management, knowledge management.

Introduction

Today the concept of change has turned to a key word and inevitable reality in organizations. Leaders regard change as a solution to the evolution of the market, technology, laws in the whole organization (Dufourt & Bourrelly, 2010; Zomorodian, 2009, Senge, 1999). These changes are aimed to develop the individual and organizational skills, guiding the organization towards better conditions. The change projects are mainly created in the following cases: creating a product or a service, changing the information system, the implementation of a new organization, developing a new strategy, application or implementation of a new law, implementation of a new management system, etc. (Boroumand, 2013; Autissier & Moutot, 2010).

The Knowledge Management (KM) in organizations is considered from different perspectives, including: technologies for knowledge creation, knowledge sharing, organizational culture, leadership, knowledge architecture, organizational learning, etc. Therefore, the approach of KM is not only a technical and one-dimensional approach, but also, cultural, management and behavioral approaches are among other aspects that have a significant role in the implementation of KM.

The studies carried out by Motavalian et al (Motavalian et al, 2012) show that Iranian companies have not achieved much success in the implementation of KM and so far only a less than 30 percent of companies have implemented the KM. The greatest challenges are in the cooperation among the experts for knowledge sharing (62 percent), updating knowledge base (59%) and creation of the link between KM and daily operations of the organization (59 percent). Therefore the first problems and challenges are more related to human and structural basis which are due to the lack of attention to the nature of KM and other issues related to changes resulting from KM. Problems of information technology and the use of appropriate software and the lack of knowledge take the next places. Therefore, their studies show that the most important challenges ahead in KM are attracting employees' participation in knowledge sharing and integrating KM with the organization's current activities.

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Abtahi & Salavati have categorized these impediments to human and cultural aspects, political aspects, technical and technological aspects (Abtahi & Salavati, 2006, 111-114) (Ghlichlee, 2010). Besides, according to studies conducted by Rabiee and Maali, there are various obstacles and challenges in the implementation of KM projects which are mainly including: cultural barriers, barriers of human resources, leadership barriers, structural barriers, measurement obstacles, process barriers and technology obstacles (Rabiee & Maali, 2012). Therefore, the previous research and studies and experiences in the field of implementation of KM reveal that implementation of KM bears several challenges and multiple aspects should be considered in this regard (Ramezan & Hasnavi, 2001).

On the other hand, the implementation of KM is associated with changes in attitude and people's performance in organization. If these changes are not properly analyzed and managed it shall increase the possibility of project's failure. So one of the things that has not been of adequate interest to researchers and executors of KM in the Iranian firms is the subject of Change Management (CM), and its assessment in order to properly execute the KM project. It appears this is perhaps one of the most important issues in the implementation of KM which is not much considered in Iranian companies.

In Iranian companies, the most immediate approach to KM, is the approach of system establishment and KM technology and access to current software and technology and it may be assumed that through implementation of an appropriate technology, KM in the organization is run properly. The important point is that the implementation of a tool or technology does not guarantee its success and there are various aspects that play an important role in the success of a project: choosing the right business model to the investment made, what changes are resulted from the implementation of the new model and how these changes should be identified and managed

Implementation of KM brings a set of changes which we need to consider and manage in order to ensure the success of the project. So, successful implementation of KM is recognized not only by management of its known obstacles, but also, by simultaneous application of CM in order to resolve the obstacles. This study intends to discuss the evaluation of the CM resulted from implementation of KM. In other words, the possibility of the implementation of KM in the selected organization will be studied.

Thus, the main question is raised in this research is evaluate whether CM is effective in implantation of KM? This study follows main goal: analyzing the role of CM in implementation process of KM. The selected organization for case study is Iranian Research Organization for Science & Technology (IROST).

Literature review

Change Management

Changes are among the things that influence today's management models; hence, management of these changes has become an essential and vital knowledge in organizations. Sometimes these changes, oblige organizations to change their policies and approaches and their medium-term or long-term plans. Change only occurs with movement and opposition to the stability. Human beings need stability to be able to create routines and habits to deal with the permanent changes. CM is a systematic and planned way of dealing with the changes (Shoham & Perry, 2009). CM includes determination and establishment of values, attitudes, norms and behaviors within an organization that will support new ways of doing things which at the same time entails overcoming staff's resistance to change (Najafbagy, 2009). Change is not only to learn something new, but also means dis-learning something already in mind which is now irrelevant. First, there must be some kind of dissatisfaction to raise the motivation to change. This displeasure occurs in the form of "survival anxiety". Meaning as Kurt Levin (1952) told "*I would lose some of my aspects unless I start to change*"! Kurt Levin calls this process "*coming to one's senses*" (Schein, 2009); therefore, the purpose of CM is preparing people for change in order to shorten the learning time which would result in the change to be done in shorter time. CM is made up of several stages: diagnosis of change, the study of change's effects, change barometer, and the management of people (Autissier & Moutot, 2010).

Diagnosis stage is considered the first stage of CM. This step identifies the current status in an organization, identifies the people which are involved in the project and the importance of their participation in the project and also, identifies the level of risk to accept or reject the change. In this stage, people's cartography allows us to get an overview of the organization based on their position and level of attachment they provide in the project. It also

allows us to take into consideration those people who are substantially of more sensitive and important role in the success of the project.
The effects of changes study is one of the important stages in CM project. This stage links between the analysis and diagnosis and implementation stages. The effects of changes study begins when the main point and purpose of the project are defined. Each change in an organization can have various effects in different aspects such as changes in skills, processes, positions or job status, structures, manner of management, tools and systems, culture, behavior and power. The third stage is people management and resistance of them regarding to changes. The last stage is piloting the changes. In this stage, the risks of project must identified and evaluate.
In this paper, based on the purposes of research, the cultural effects in knowledge-sharing will be studied.

People management and resistances

In most projects, project managers mainly concentrate on the schedule of the project and its budget and think that the concepts of "*accept*" and "*resistance*" in the project while being important eventually will be solved by time. In fact, this management behavior is just a mistake, because, if project managers fail to convince the project staff to join to project, they will never use their full potential and will not consider themselves as a part of the project. A change project may always face resistance from the people. Almost any change is causing fear in people, because it forces them to change their routines and be prepared for a new training (Armaghan, 2014). These two concepts are at the heart of the phenomenon of resistance to change. People may fear opposition to the project, but it is likely that they are not convinced of the implementation of the project and will only pretend to agree. Thus, the resistance during the project should be identified and resolved to prevent them from stopping project's success. We have also three common but different behaviors among the project users or beneficiaries (Autissier & Moutot, 2003):

- *Pioneer people*: those who are in favor of changing and they encourage change project. They not only express interest and show a sense of belonging to the project but also try to share it with other people.
- *Inactive people*: a group of people who because of fear of accepting responsibility, or waiting to have the expected results or because of a lack of understanding of the issue, prefer to show their neutral position. They are the ones who are waiting for the convincing results. They want to be safe and they are conservative. They do not show opposition but are in a state of expectation.
- *Opposing People*: They are opposed to the change project and bring opposite reasons and arguments regularly and systematically. They are opposed to implement project because of ideological, political or personal conflict.

Research method

The research was conducted by using quantitative method and case study. In this study, a questionnaire was developed and we evaluated the CM in the process of implementation of KM in the organization to analyze its impacts and the results of changes in that area. Studies and data were collected through questionnaire and document analysis (books, articles, reports and other documents), and observations. Given that KM is one of the research-executive priorities of IROST, we decided to analyze CM in implementation of KM in the said Organization.

Measurement tools used in research

In this study, information and findings from the questionnaire survey were used as a measurement tool. This questionnaire was derived from the French model in CM (Autissier & Moutot, 2010) (Autissier & Moutot 2013). The questionnaire was structured as in closed-response questions; meaning that every part presents a set of options to respondents to choose among them. Some of the responses were scored on Likert scale. Zero means "no change", one means a "very little changes", two means "little changes", three means "medium changes" and four means "very numerous changes" and five means "fundamental changes". The closed-response questionnaire is designed in four parts. Each of the sections of the questionnaire was designed for a specific purpose as follows:

(i) The cartography of people designed to evaluate the departments involved in the project of KM (the Change Project). Te degree of involvement in project divides in three categories: "*Unavoidable", "Necessary"* and

"Little influence". The level of risk shows the resistance of people against the project. Data analysis in this part specifies the degree of importance of various departments in relation to their degree of involvement in the project. The risk level specifies the possibility of the approval or rejection of the project;

(ii) The part studying the effects of changes; analyzing the aspects which will change under the influence of KM project, and their degree of involvement;

(iii) In the behavioral questions part, the level of people's involvement in the project will be specified as well as the number of the pioneer and compliant, inactive or opposing people.

(iv) The change evaluation part of the research shows how much the KM project has the potential and feasibility of implementation in the organization.

Validity & Reliability

To determine the validity of the questionnaire, the face validity or the experts' opinions was used confirming the authenticity and validity of the questionnaire.

The population and manner of data collection

Since this study is a case study in IROST, the population of the study, are all faculty members, managers and their deputies and heads of departments. Data collection was through a questionnaire. The collection consisted of 141 questionnaires, of which 104 questionnaires equal to 74% were answered.

Data Analysis

At this stage, first, the data collected by questionnaires, were prepared, homogenized and classified. The questionnaires were divided into two main groups to send to people. The first group, which included parts one to four, was sent to managers, directors and their deputies. The second group, which consisted of the second to fourth parts of the questions, was sent to other people. In analyzing the questionnaire, the first part was analyzed separately. But other information on the questionnaire in both groups, are together registered. Then, each section of the questionnaire was separately analyzed.

Analysis of findings

The results of the questionnaire responses were analyzed as follows:

The cartography of people

In this part of the questionnaire, the importance of implementation of KM and the risk level of its acceptance in all parts of the IROST was discussed, as evaluated by managers and deputies of different department. The results show that managers of most of the departments evaluated the need of KM implementation as *unavoidable* or *necessary*. Deputy of innovation evaluated KM by 70%, the highest score, as *unavoidable* and then the research centers with 52% of *unavoidability* took the second position. The Technical Departments Development Center evaluated the need as 86% *necessary*; other department percentages are lower and take the next places. This need was deemed less important in the Human Resource Department being evaluated as 50%, and, in other department was evaluated between 0 to 20%. In total, statistics show that the majority of departments of the IROST feel the necessity to implement KM in their departments (Figure 1).

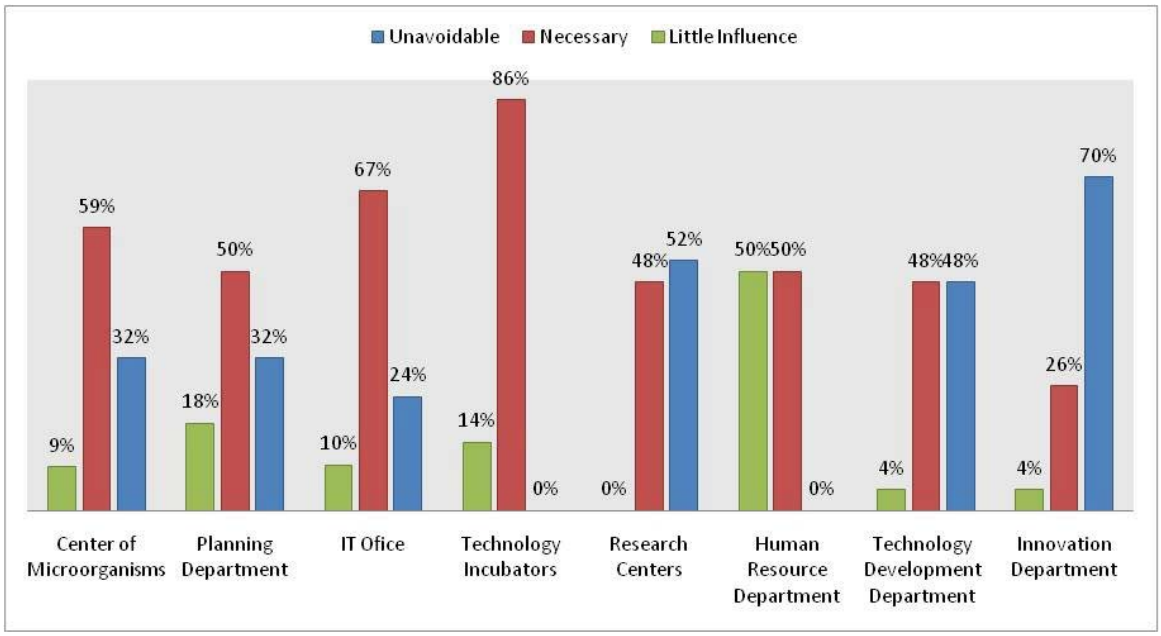

Fig. 1. The Importance Rate of Implementation of KM in view of IROST's Departments

According to the results, the risk rate of implementation of KM in terms of acceptance, modification or rejection in view of the managers and their deputies in different department, have been evaluated as shown in Figure 2. In this evaluation, the Departments of Innovation, Technology Development, the IT Office, and the Center of Industrial Microorganisms, evaluated the rate of people's acceptance of the project to be higher than 50%. Human Resource Department, research centers and technology incubators, with more than 50%, believed that the implementation of KM with some modifications was possible in those units. The possibility of rejection of the implementation constituted a small and even in some of the department zero percentage. In general, managers and deputies of different departments evaluated this change as important and believed that its implementation is possible in the department and considered the level of risk to be very low.

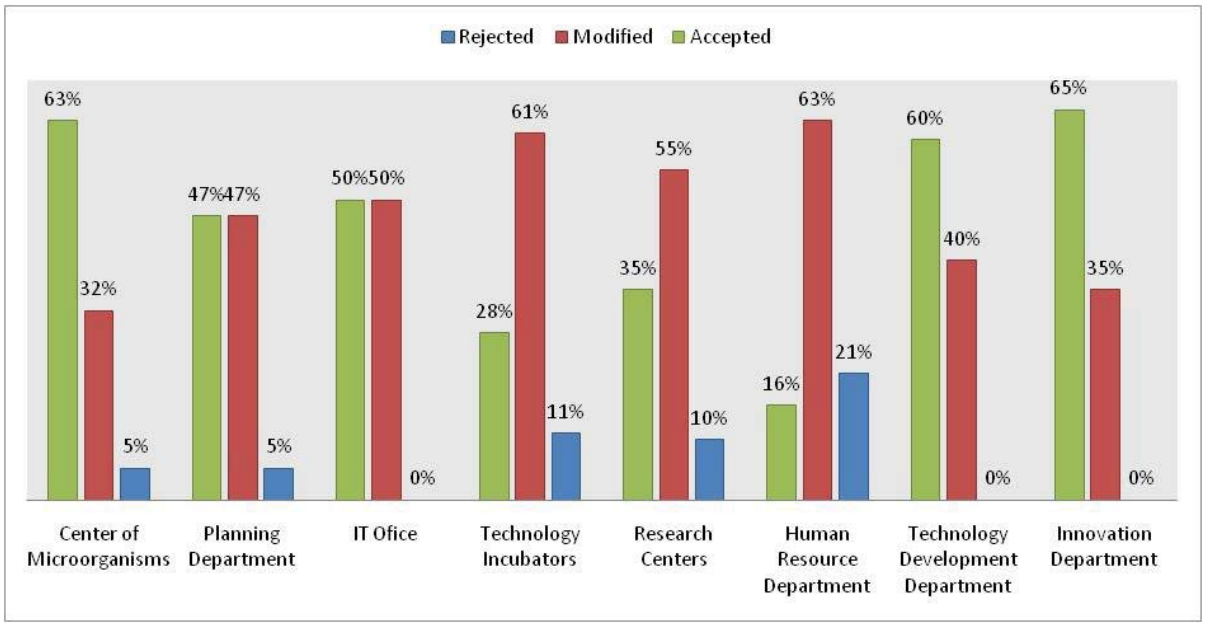

Fig. 2. Level of Risk of Implementation of KM in Different Departments

Effects of changes study

In this section, we evaluated the rate of changes resulting from the implementation of KM. The series of questions in this section in identifying the changes, Figure 3, shows that people have generally evaluated most of the changes in the IROST to be of cultural changes with a score of four. The current culture in the IROST is now seen as the greatest obstacle to the implementation of KM. Then "compromising data privacy and intellectual property" scored two, the "knowledge sharing" and "endangerment of people's powers" scored one. People's position and career with a score of zero indicated the lack of compromising their position.

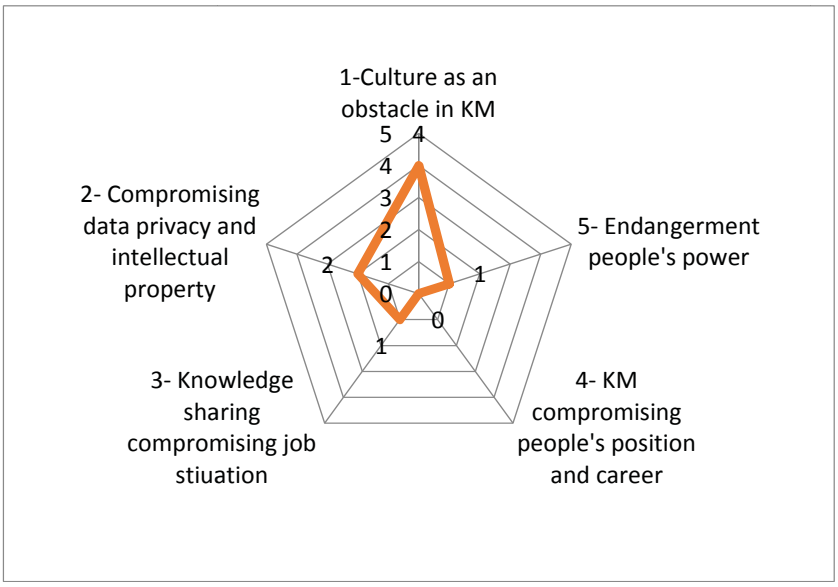

Fig. 3. Identifying the Change Resulting from Implementation of KM

Behavioral questions

The results of this section show that in the current situation, in order to implement the KM, 50% of the people are pioneers, 32% are inactive, 4% are against change, 12% are neutral and 2% did not provide any answer in this regard (Fig. 4).

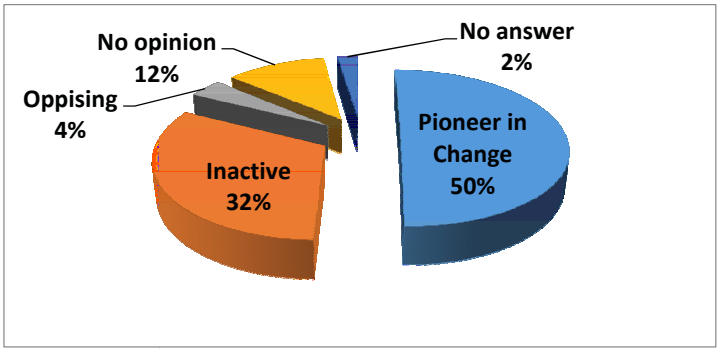

Fig. 4. Behavioral Results of Change

Barometer of change

The first goal in the CM is belonging to the project by those who are involved in it. In order to obtain a quantitative assessment of the degree of belonging to the project, barometer of change was used. Barometer of change is the method by which the degree of individual's belonging to project can be evaluated as follows (Autissier & Moutot, 2013):

(i) A score of less than 20 indicates that the organization clearly rejects the proposed change,
(ii) Scores of 20 to 40 is related to the lack of understanding of the purpose of change,

(iii) Scores of 40 to 60 means that some of the tools needed to achieve the desired changes require supplementary description,
(iv) Scores of 60 to 80 is a positive sign indicating an appropriate level of accepting the change,
(v) Scores higher than 80 mean that the organization has been able to accept the change and reflects the dynamic potential to create change. In addition, this dynamics shows a degree of innovation in the structure.

Based on the scores obtained from the questionnaire in the evaluation of changes regarding to KM, the results of the barometer in the IROST, is equivalent to 75 points. In other words, this number means that there is a positive sign of accepting the change in the organization.

Conclusion

This study investigates the importance of CM is in the process of KM implementation. The results indicate that managers and deputy managers evaluate implementation of KM in their departments ranging from "*necessary*" to "*unavoidable*".

With regard to analyzing the effects of changes, the results show employees believe that in case of implementation of KM, in terms of "*compromising the privacy of information and intellectual property*", necessary changes must be made in this regard in IROST. It is possible that individual's intellectual property is not fully protected. In terms of the "*compromising people's position and career*" employees do not feel any risk and does not believe that implementation of KM shall cause any impediment in this matter. The results of assessment show that to handle the resistance in the implementation of KM in terms of cultural aspects effective in knowledge sharing requires necessary changes. It means, implementation of KM, will be faced a lot of resistance from the people.

The results of the behavioral results showed that about 50% of people agree with this change and are pioneers of changes. It means that the IROST's staff welcomes this project and feels it to be effective in organization's growth and development. In other words, there are positive signs of accepting the change in IROST.

The barometer of changes equal to 75 points showed that there are positive signs of accepting the change in the IROST, but, before that, organization's cultural factors should be studied in depth.

KM is considered as a new change due to bringing several changes in an organization. Therefore, in order to deal with these changes and achieve desired result, all related factors to KM which need to be changed, should be identified and managed. Therefore, with regard to whether the CM is effective in a successful KM implementation; in this paper, it was shown that the CM in the process of implementation of KM not only results to identify the resistances against the project, but also, by evaluation of CM, the feasibility of the project and its probability of success will be also evaluated.

Thus, based on the goal set in the beginning of the article, it was determined that implementation of CM project at the same time with the implementation of KM is essential and independent implementation of KM regardless of the CM requirements will greatly increase the probability of failure in KM project.

The question that which strategies should be implemented against cultural obstacles in the implementation of KM, will the future debate of this research. Therefore, the cultural barriers, as well as their management in the organization that could be discussed in future studies.

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