

**THE INVESTIGATION OF THE INCREASE IN KNOWLEDGE MANAGEMENT TO USE INFORMATION TECHNOLOGY IN THE ORGANIZATIONS (THE CASE STUDY OF THE BRANCHES OF ARDABIL TEJARAT BANK)**

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**ABSTRACT:** The focus on the knowledge in the organization to transit from industrial age into knowledge age and the settlement of organization based on knowledge as a key element in organization survive is a necessary and vital issue. Since the growth of information and knowledge has been very fast in the recent years, the current age has been called knowledge explosion age. On the other hand, the problem and concerns are raised in modern societies which cannot be solved by old strategies. The major problem is the magnitude of the data which should be collected, maintained, produced, processed, recycled, and analyzed. In addition to this point that the use of information technology in the organizations has been necessary and unavoidable, the general expectations of citizens, the promotion of organizational efficiency, the decrease of office expenses, clarification, the improvement of customer satisfaction, offering favored services to citizens, and the increase in service speed have persuaded the managers to use information technology. The current study which was designed based on descriptive- measure method, using library studies and field researches, revealed that there is a significant relationship between the capabilities of knowledge management and information technology ( $P < 0.01$ ,  $r = 0.590$ ). So it can be mentioned that the managers have adopted the positive approach to the application of information technology in knowledge management domain in order to reach organizational goals and the ignorance of one of these tools creates many problems in management domain. Therefore it seems that the knowledge management using the tools of information technology influences not only the organizational growth but also the increase in workforce knowledge leading to organizational progress.

**KEYWORDS:** Knowledge Management, Information Technology, Work Force, Government.

**INTRODUCTION**

Lazz and Kustro (2002) believe that the first generation of knowledge management can be proposed through focus on information society, information sources and intelligence capital.

The first generation of knowledge management focuses on this point that what knowledge management is and how it is possible to show efficiency using thought and technology. The second generation considers the implicative concepts of knowledge social learning situation oriented implicative knowledge. The third generation of knowledge management focuses on the relationship between action and thought. To create the real knowledge, it is not enough that one person think and act based on his own thought all of know ledges are originally social and cultural and organizational can be considered only through changes in organizational activities and improvement of work force and organization efficiency.

**KNOWLEDGE MANAGEMENT**

Knowledge management was introduced for first time in late of 1970s. In the middle of 1980s when the place of knowledge and its effect on competition power in economical markets was revealed the importance was doubled. In this decade, the regimes based on artificial intelligence and intelligent regimes for management knowledge engineering knowledge oriented regimes etc. were wide spread (bahmani, 2012).

Peter drucker fames thinker of management was the first one who attracted public interest to the knowledge management 25 years ago. Since then other thinkers of management affairs and the innovative companies producing knowledge and experience in this field pioneered. At present time the most of organization found out that they need an integrated and systematic insight of knowledge inside the organization in order to succeed in the challenging world of competition (Siadat et al., 2011). The knowledge management is a complex process and the success of the

organization to benefit organizational knowledge depends on the application of this process (Bohrani fard, 2011). Peter Drucker argues that the successful managers in information and knowledge age are not looking for access to information because the information is available through various networks and databases and other sources. The managers need the access to appropriate and related information which are processed and organization and prepare regarding their profession back ground (Hasan Zadeh, 2011).

#### **THE STAGES OF KNOWLEDGE MANAGEMENT**

The knowledge is the real property of the organization which makes effort for successful attendance in universal competition and integrity of systems values and organizational resources. The knowledge as an important stimulus in the process of creativity and innovation play a main role as a organizational resource. The knowledge shapes the interaction pattern between skills technologies and individuals. The obtained experiences indicate that the organizations which use knowledge management to meet long term needs in a closed way are cautious in technical and social relationships. All tough this makes it possible to gain technical solutions the cooperation and knowledge sharing atmosphere should be created to achieve knowledge management in the organization and innovation. Therefore the knowledge especially implicative knowledge has an important role in each stage of innovation process. The organization must provide a place for knowledge and establish technical under structures like library computer networks databases workforce internet communication facilities research center and interaction with other organization and universities (Shokri, 2010).

so it can be mentioned that the knowledge management is making an attempt to establish knowledge relationship among the people working in the same organization the instruct meted of using organizational knowledge provide opportunities for changing the personal knowledge into group knowledge and vice versa in order to reinforce innovation and creativity. Abel and Expro (2001) have characterized 4 stages for knowledge management:

- 1) Disclosure of knowledge
- 2) Creation of interest in knowledge
- 3) Establishment of knowledge sharing
- 4) Under structure for knowledge distribution

For knowledge management, at first the various forms should be disclosed, that is it should be changed from subjective state (hidden) into objective state (clear). Then the interest in knowledge and it application among organization staff must be motivated in order to be established. The belief in knowledge makes the learning to be considered as a main duty of organization and its staff (Bahmani, 2012).

#### **THE STRATEGIES FOR THE DEVELOPMENT OF KNOWLEDGE MANAGEMENT**

The settlement of charter of knowledge management in each organization depends on not only intra-organizational Readiness but also the development of tactic technical program. The success or failure of the charter of organizational knowledge management is based on orientation abilities and each program needs practical plan (Rash, 2000). The knowledge management is one of the fundamental operation strategies and help the organization to recognize new opportunities in the back ground of organizational learning and settlement of knowledge regime and manage the coming challenges efficiently (Parise and Sasoon, 2002) .

The promotion of the flexibility of in internal or internal processes of the organization and giving a window into business is based on the manner of using new knowledge oriented technologies (Zuckerman and Buell, 1998). In other words, the knowledge management is the process of characterization, enriching and development of the properties of organization knowledge in order to acquisition of business advantages for the organization in accordance with mission and customers (Shanker,2003) on the other hand, the knowledge management charter is the basis of the formulation of organization programs and the establishment of the developmental processes of this charter in the organization level is a necessity to achieve long term benefits (Davenport and Pruusake,1998) the effective establishment and exploitation of knowledge management needs systematic under structure and related technology as well as organizational obligations to use knowledge in current activities in all levels of organization. The suggested solutions of knowledge management facilitate the process of customer service. This system allows the access to database and knowledge saving for organization staff, partners, and customers. The knowledge management minimizes time based outcome of problem solving and this capability of knowledge management accelerates the

marketing activity of organizations so that the organization can meet customers' needs as quick as possible providing a kind of interaction between organization and customers. So it is expected that the customer satisfaction through problem solving (Sveiby, 2001).

#### THE INSTRUMENTS AND MECHANISMS OF KNOWLEDGE MANAGEMENT

Shermer home et al. focused on the process of compilation, selection, processing, and development of knowledge in the organization as different aspects of learning process of in organization and mentioned following points in explicating this process:

1) Knowledge acquisition, 2) information distribution, 3) information interpretation, 4) information maintenance

Also they introduced the following techniques as common mechanisms of organization for information maintenance:

1) individuals, 2) culture, 3) common trends, 4) organizational structure, 5) physical structure, 6) external archives bahmani, 2011)

#### THE MODELS OF STUDY OF KNOWLEDGE MANAGEMENT UNDER STRUCTURES

##### 6.1. Nonaka and Takruch model (1995)

The basis of this model is hidden and apparent knowledge and their transfer processes. To convert these two kinds of knowledge, there are four conversion processes including:

Hidden to hidden (society acceptance): it is carried out through group meeting and discussions. Hidden to apparent: It happens through individuals' attempt to present their knowledge in the form of speech, books, etc.

Apparent to hidden (intra organizational): in this process, the people are inspired by an apparent knowledge (for example a report) to create a new idea or do something benefiting. In the above mentioned processes the conversion of knowledge is from hidden to apparent and also from individual to groups which finally lead to creation of specific organizational knowledge.

If the mentioned processes were successful in the organizational, it would have five positive consequences in all different organizational levels: Knowledge sharing by a group of people, the conversion of groups' hidden knowledge into objective concepts, the combination of groups concepts with external data and knowledge available in organization, explication and development of concepts in more tangible form, and the distribution of new knowledge among the staff of organization.

Finally the dynamism of this cycle results in production of organization of knowledge as much as possible. Of course, the main precondition of the maintenance of this cycle dynamism is the provision of needed under structures by organizations.

#### INFORMATION TECHNOLOGY

These days information technology influences all performances in all organizational and social levels and has made essential changes in all life aspects especially business. The changes – under the influence of information and technology age- have seriously affected the models of business and organizational processes, efficiency, customers' satisfaction, citizens' satisfaction, and many other social and organizational variables. These paradigm changes have made the organizations to pay more attention to customers and citizens and all services and processes are designed and performed considering customers' interests and satisfaction (Zargar, 2003). In other words, the information technology is referred to instruments and methods which collect, save, restore, process, and distribute the information in different forms (Ahmadi, 2006).

#### THE CONSEQUENCES OF APPLICATION OF INFORMATION TECHNOLOGY IN ORGANIZATIONS

The organizations and institutes use information technology in different ways. Some use to write and process the words and establish the connection among the units and in some other organizations, the information is an essential part of the products and services which are offered to customer (Janson, 1999). The increase in information about economic activities all over the world has used information technology increasingly and the effective planning in organizational capacities is necessary to be accorded with new technologies successfully.

##### 8.1. Workforces

The application of information technology decreases the need to workforce for supervision and increases the need for skillful people instead. The websites of information technology needs skillful workforce in order to use websites efficiently. Therefore, the degree of adaptation with instruments of information technology depends on the degree of company's skill (Fani, 2006).

##### 8.2. The size of company

Most of studies have reported a positive relationship between the size of company and

technology development in the company. Lol (1999) argued that there is a positive relationship between the size of company and capacity of technology absorption.

### 8.3. Government

The role of government in the development of information technology being proportional to interference degree in national economy is various in different countries. Despite the differences in government's interference observed in different countries, all governments play common role in policy making, propagation, training, and establishment.

### THE EFFECTS OF INFORMATION TECHNOLOGY

The application of information technology has had a lot of effects on women's employment and economic cooperation in organizations and institutes. Sheng studied the role of on line stores in facilitating the employment of housewives and reported that two third daily shopping from grocery stores is same and electronic sale facilitates women's role in the workplace (Fani, 2006).

### METHODOLOGY

At present study, the descriptive research method was used.

### THE HYPOTHESIS OF RESEARCH

There is a positive relationship between knowledge management capabilities and information technology.

### STATISTICAL POPULATION AND STATISTICAL SAMPLE

In order to investigate the relationship between knowledge management capabilities and information technology, the managers of Tejarat Bank of Ardabil branches participated in this study. There are 18 branches and all custom research sampling method was used in order to have access to all branches and benefit all managers' opinions so that the managers of all branches were surveyed.

### INSTRUMENTS

To investigate the knowledge management, knowledge management questionnaire used by Cold et al., (2001) was applied. In addition, a 6-question questionnaire was used which has already been applied both in Iran and abroad (Mogimi, 2011).

### FINDINGS

As it can be observed, Pearson correlation coefficient test was used to investigate the significant relationship between variables namely knowledge management and company performance. The obtained results revealed that significance level was 0.010 ( $p < 0.05$ ) indicating that there is relationship between knowledge management and information technology.

As it can be seen in correlation matrix table, there is a significant relationship between technological capability (0.558), structural capability (0.580), process capability (0.532) and information technology. But there is no significant relationship between information technology and cultural capability (see table 1.1.2.4).

### DISCUSSION AND CONCLUSION

In management science, the knowledge management has always been in a dominant position. Unlike many sciences, it was attached great importance because of the results obtained through the management based on knowledge management favored by managers. Technology progress and development in societies as well as their beneficial to management science resulted in a close relationship between knowledge management and information technology. These two were big help to management science leading to organization development. It must be mentioned that the strongest influence of these two mechanisms have been exerted on organization's human structure. Since the philosophy of knowledge management is based on this fact that the managers should use a coherent planning to promote the organization and this is impossible due to the complexity of information unless the mechanism of information technology was applied, the application of this mechanism needs specialized and efficient people demanding new management approach. In other words, adoption of information technology led to increase the need for specialized workforce and this will not be possible without referring to increase knowledge and studies. Therefore, it can be mentioned that there is a very close relationship between knowledge management and information technology in an organization, that is, the implementation of one without another is impossible or less efficient.

The results indicated that there is a significant relationship between knowledge management and information technology ( $p < 0.01$ ,  $r = 0.590$ ). Also, this study revealed that there is a significant relationship between technological capability (0.558), structural capability

(0.580), process capability (0.532) and information technology. But there is no significant relationship between information technology and cultural capability.

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