Studying the Relationship between Organizational Forgetting and Management Information Systems Implementation (Case Study: Boushehr Customs)

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Abstract: Recently, companies have acknowledged organizational forgetting as a tool for optimizing organizational performance. The purpose of this research was to investigate the relationships among intentional organizational forgetting, organizational learning, knowledge management capability and organizational performance. Management Information Systems (MIS) also play an important role in controlling and purifying data and information in organizations. This study has probed the organizational forgetting concept. It has written in three parts. The first part concentrates on what is the organizational forgetting for making familiar the concept. The second part reviews the existence theory in this case and the last part tries to exposure a model for organizational forgetting. In this model according to forgetting dimension, the guidelines take consider for facing to organizational forgetting. The relationships between organizational forgetting and MIS implementation is been studied in this research. The obtained results have shown a strong relationship between forgetting process and MIS implementation in the Boushehr customs organization.

Keywords: Knowledge Management, Organizational Learning, Organizational Forgetting, Organizational Forgetting Guidelines, Management Information Systems

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1. INTRODUCTION

In recent years, different companies and organizations, have started attaching to the knowledge procedure and new concepts, such as knowledge work, knowledge workers, knowledge management and knowledge organizations show that this trend is intensified. Peter Drucker, using this terminology, announced the creation of new type of the organizations where instead of arm strength, strength of mind is the rule. According to this theory, the communities that have more knowledge can be developed in the future. So having the natural resources, is not important as knowledge. Knowledge organization will gain the capabilities that is able to build immense power from low power. These organizations are faced with new challenges. Nowadays, the competitive environment of the organizations are more complex and variable than before. . This atmosphere is changing rapidly in a way that for most organizations it is more quickly than their responding and adapting power. Steady changes of the knowledge has created a new imbalance status for organizations. Endless stream of knowledge, makes the markets change constantly that it makes the organizations change continuously.

In another sense, we can call the learning organizations, the knowledge-creating organizations, organizations that new knowledge, innovation and creativity is not specialized and dedicated in it, but it is a common behavior, a way that all members act to it. In other words, the knowledge-creating organization is an organization in which every human being is creative and knowledge-creating. In this thinking organization, group discussions, exploring new ideas and thoughts are encouraged and innovators are grown. Organizational forgetting is a kind of managerial concepts that has received little attention. Sometimes forgetting unnecessary data is necessary and sometimes to avoid missing useful information is very important. Adopting appropriate strategies in relation to organizational forgetting is one of the success and failure of organizations. Despite the need to develop the capabilities of organizational learning, research has shown that organizations do not always learn easily. Conklin says that the organizations naturally tend to forget. Organizational learning refers to the processes that increase human knowledge. Against organizational learning, organizational forgetting refers to the loss of such sciences. When the organization is suffering from forgetting, it is actually unable to do the activities that they had previously been able to. Forgetting valuable information, techniques and knowledge of organizations for any reason can lead to loss of competitive advantages, although on some occasions, organizational forgetting leads to increase the competition and eliminate the useless elements of knowledge, however, the phenomenon of organizational forgetting should be managed so that organizations can benefit from it. It seems that this phenomenon appears to be an essential process in the change management.

Forgetting is the general concept that can be examined at different levels. Forgetting is relevant to the creatures that are equipped with learning abilities and so can be considered in the levels of person, group or organization. Each of these levels are examined in a variety of fields. Forgetting in the level of group is studied in the fields of social psychology, and sociology and organizational forgetting is examined in the field of management.

Management information system is a kind of computer information systems that can collect and process the information from different sources in an institution for decision-making in the managerial level. Managerial control need information that part of it is produced by the transaction processing systems. Managerial control support information systems process the information produced by the transaction processing systems and provide them to the manager in the significant new form. Such information systems, called management information systems.

Management Information System is an integrated system that is organized of user and machine to provide information to support the operations, management and decision making in organization. This system uses computer hardware and software, guides and manuals, models for analysis, planning, control and

decision making, and a database. (Davis & Olson, 1985)

Management information system is an integrated, computer and user-machine system that provides the necessary information to support the operations and decision making process. The main components of this system are: 1. integrated system to serve large numbers of users 2. Computer system that linked some software through a database 3. User - machine connector that has responded to immediate and transient searches 4. Providing information to all levels of management and 5. Supporting the operations and decision making. Dimensions of information include systems management, organization and technology (Davis & Olson, 1985). The main objective of the present study is to investigate the relationship between organizational forgetting and the implementation of information systems.

The secondary objectives of the study are:

- Inspecting the relationship between organizational forgetting and the implementation of information systems

- Inspecting the relationship between the results of organizational forgetting and the implementation of information systems

2. RESEARCH LITERATURE

Over the past decades, organizations are aware of the value of knowledge management largely and research has shown that this issue has been widely discussed. Organizations not only learn, but they forget, too. Knowledge management - as one of the most important organizational components - needs to establish a system to learn, collect, maintain, and disseminate knowledge within the organization (organizational learning). Today, organizational learning is an important component in establishing and maintaining a competitive advantage and about this concept, many practical and theoretical comments are written. On one hand, this system must have the ability to avoid forgetting the essential knowledge and on the other hand it can lay aside the unnecessary knowledge.

Organizational forgetting is one of the managerial concepts that has been of little

attention. Sometimes forgetting unnecessary data seems necessary and sometimes avoid missing useful information is important. Adopting appropriate strategies about organizational forgetting is one of the factors of success and failure of organizations. Despite the need to develop organizational learning capabilities, research has shown that organizations do not always learn easily. Conklin says that organizations naturally tend to forget (Danaee Fard & et al. 2010)

Organizational learning refers to the process that increases human knowledge. Against organizational learning, organizational forgetting refers to the loss of such sciences. When the organization is suffering from forgetting, it is actually unable to do the activities that it had previously been able to. Forgetting valuable information, techniques and knowledge of organizations can lead to loss of competitive advantage for any reason, although on some occasions, organizational forgetting, leads to increasing the competition and removal of the unhelpful elements, but the phenomenon of organizational forgetting should be managed so that organization can benefit from it (Ozedmir, 2010). It seems that this phenomena is an essential process in the change management (De Holan, 2004).

Forgetting is the general concept that can be examined at different levels. Forgetting is relevant to the creatures that are equipped with learning abilities and so can be considered in the levels of person, group or organization. Each of these levels are examined in a variety of fields. Forgetting in the level of group is studied in the fields of social psychology, and sociology and organizational forgetting is examined in the field of management.

On the other hand, the era of information , the era of information explosion, information and communication technologies are terms that we hear them every day and several times and see them in the books, newspapers and the Internet (which is born of different concepts). The information era began with this problem that decision making in turbulent environments without continuous access to relevant information actually creates a lot of confusion. The design and implementation of information

systems and technologies are considered as fundamental elements of the information era. As Srafizadeh and Ali Panahi (2001) have pointed out, the complexity of inter-organizational and intra-organizational environments, has increased the need to information and consequently information systems.

Doroov pointed out to some researches which show that the organizations are prone to forgetting. These studies show that many organizations make repeated mistakes based on a regular rule and provide recurring solutions to solve their problems that could be offered in the previous experiences. It clearly shows that organizations are vulnerable to forgetting (Fernandez & Sune, 2009). In the tasks that are performed frequently, knowledge can be forgotten after a while, the amount of this forgetting depends on the effectiveness of tool of transfer knowledge and time of stopping work (Tavakol & et al. 2011)

Doroov says that organizational forgetting is basically inability to benefit from the previous knowledge and experiences of the organization. In other words, organizational forgetting is the organization failures in exploiting the learning that has occurred in the past (Fernandez & Sune, 2009).

According to the definition of these scholars, organizational forgetting, is not about learning organizational issues disabilities, but forgetting is a process that occurs after learning. This means that an organization, at first learn the knowledge and then, consciously or unconsciously forget it. In this article, organizational forgetting is defined as follows:

Organizational forgetting, is the consequence of the actions inter-organization and intra-organization in which an organization (or company) loses part of the knowledge of the organization (or company) consciously and unconsciously. This knowledge includes things such as skills, methods, processes, experiences, documentations, and techniques used in the organization.

Azmi has divided the forgetting into two forms of planned and unplanned. In his look, planned forgetting is an active and deliberate act in which the knowledge and information of the organization will be put away. On the other hand, unplanned forgetting is a passive and often involuntary action in which the vital knowledge of the organization is forgotten. On the other hand, he has paid attention to the consequences of forgetting and has classified these consequences in terms of positive or negative.

De Holan has classified the organizational forgetting based on two dimensions. He was seeking to link the method of forgetting and type of forgotten knowledge to describe the organizational forgetting. First dimension shows the difference between conscious and unconscious forgetting, and the second refers to the source of knowledge. The organization in many cases forgets its knowledge and skills consciously and unconsciously and sometime newly innovated knowledge will be forgot consciously or unconsciously. Newly innovated knowledge is a knowledge that is established by the innovation of the employees in the organization or it may be transferred from outside to the organization (De Holan, 2004)

Fernandez & Sune point out that organizational forgetting is associated with innovation. If innovation takes place within the organization, it is a kind of conscious forgetting, but if it takes place outside of the organization, it is a kind unconscious forgetting (Ghasemi, 2010)

3. RESEARCH METHODOLOGY

The current study is based on the correlation. In this kind of research, the relationship between the variables is analyzed based on the aim of the research (Sarmad & et al. page 90). In other words, the aim of correlation research method is studying the changes of one or more variables with changes in one or more of the other variables.

3.1. STATISTICAL POPULATION

The first base in selecting statistical population is subject of the research. The population under study in this research is the staff of the Boushehr Customs Organization. 650 people were selected as statistical population. According to the scope of the population and other limitations such as access time constraints, in this study we have attempted to sampling.

Cochran's formula was used to determine the sample size.

$$n = \frac{Z^2(1 - \alpha/2)pq\, N}{e^2(N - 1) + Z^2(1 - \alpha/2)pq}$$

According to the above formula, the sample size for a community with 650 members and confidence interval of 95 percent is equal to 242 people.

In order to answer the research questions and in order to collect the required data, a questionnaire was prepared. At first, the indices associated with each variable are determined and then, based on these indices, the questions were designed. The questionnaire was prepared in several parts. Full sample questionnaire is attached at the end of the thesis. Random sampling was done. The questionnaire included items that answers of the sample members to these questions would help to collect the required data about the organizational forgetting and management information systems in the organization.

To assess the reliability of the questionnaires, 35 questionnaires were used. These questionnaires were distributed among the population members and after collecting and measuring the reliability of the questionnaire we found that the Cronbach's alpha is 0.931 for the questionnaire of organizational forgetting and 0.906 for the questionnaire of management information system. As mentioned above, the reliability coefficient is between 0 and 1. Alpha level derived of each of the questionnaires, is close to 1 and this shows the high reliability of the results of the questionnaire. Thus, the other questionnaires were distributed among members.

4. RESEARCH FINDINGS

At first in order to test normality of data, we use the Kolmogorov-Smirnov Test. using this test shows that which statistical methods are used to evaluate our assumptions? Should we take advantage of parametric or nonparametric statistics? Normality tests examine the normality of data distribution. Although the data are more than 30 people and we could use parametric tests approximately, but using Kolmogorov-Smirnov tests can change the uncertainty to certainty and it can guide us to use the parametric or nonparametric statistics. First, we write the assumptions about the data as follows:

H_0: distribution of the data related to the organizational forgetting is normal.

H_1: distribution of the data related to the organizational forgetting is not normal

After entering the data into the software Table 1 comes from:

Table 1. Results of Kolmogorov-Smirnov tests for the data related to the organizational forgetting

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Forgetting	0.119	247	.088
Types	0.124	247	.074
Consequences	0.094	247	.085

As can be seen, in the Kolmogorov-Smirnov tests, normality the data is verified. If the calculated sig for each variable is greater than 0.05, we can say that it is a normal distribution.

4-1. STUDYING THE RESEARCH HYPOTHESIS

There is a relationship between the organizational forgetting and implementation of information in the Boushehr customs organization.

The results of studying the main hypothesis is shown below:

Table 2. The results of Pearson correlation test to evaluate the main hypothesis

Variables	Pearson Correlation	Sig.
Organizational Forgetting and MIS	0.858	0.000

The results of the correlation test show that there is a relationship about 0.85 between organizational forgetting and implementation of information systems in the organization. Therefore the null hypothesis is not rejected. This issue that whether or not this forgetting will benefit the organization will be shown in further hypotheses.

4-2. STUDYING THE RESEARCH QUESTIONS

1. Is there any meaningful difference between methods of organizational forgetting and implementation of information in the Boushehr customs organization?

The results of studying this question is shown below:

Table 3. The results of Pearson correlation test to evaluate the first question

Variables	Pearson Correlation	Sig.
Unconscious organizational Forgetting and MIS	0.729	0.00
Conscious organizational Forgetting and MIS	0.205	0.00

2. Is there any meaningful difference between consequences of organizational forgetting and implementation of information in the Boushehr customs organization?

The results of studying this question is shown below:

Table 4. The results of Pearson correlation test to evaluate the second question

Variables	Pearson Correlation	Sig.
Helpful organizational Forgetting and MIS	0.895	0.00
Harmful organizational Forgetting and MIS	0.289	0.18

3. Is there any meaningful difference between knowledge of organizations and implementation of information in the Boushehr customs organization?

The results of studying this question is shown below:

Table 5. The results of Pearson correlation test to evaluate the third question

Variables	Pearson Correlation	Sig.
Existing stock knowledge and MIS	0.895	0.00
Newly innovated knowledge organizational Forgetting and MIS	0.289	0.18

5. DISCUSSION AND CONCLUSION

In this research, we studied the organizational forgetting and implementation of management information systems in the Boushehr customs organization. According to the results, recommendations are offered to managers of organizations that can be useful for strategic. To manage the organizational forgetting, managers should be aware that organizational forgetting is not always a harmful issue and sometimes some of the organizational information shall be eliminated. Information about the past, unimportant parts and those cases that maintaining them only has cost and cause to useless accumulation of information. Managers should properly classify the information with the help of management information systems. Using Data Mining can help in this matter. The information that has a lower degree of importance from the managers' point of view and maintaining them in the organization is unnecessary. As seen in the assumptions, part of forgetting is helpful forgetting that has a 70% relationships with management information systems. Therefore, using management information systems can lead to forgetting information that should be forgotten.

Managers should have control on newly innovated knowledge and existing stock knowledge and also management of the knowledge flow in the organization. Newly innovated knowledge in the organization can be possible through different ways. Recruiting new employees, taking advantage of knowledge workers, the use of consulting firms in the field of knowledge services, taking advantage of educational courses for the employees are the most important processes of entering knowledge to the organization. Organizations are always trying to apply the modern technologies and use the knowledge of managers and employees more and more to change the threats outside of the organization into dramatic opportunities in order to be survived. This aim is being available due to new skills and knowledge of the administrative and operational managers and employees of the organizations and technological change. The most important way to promote the scientific and skill levels of the managers and employees of the organization are the on-job services. (Sadeghi, 2013).

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