

A Survey of the Relationship between Organizational Memory and Organizational Learning in Public Organizations of Kerman

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Abstract

Today, organizations and corporations are coming to view their current and generated knowledge as the main capital and attempt to collect and retain such knowledge. Especially by geographical expansion of the organizations and utilizing computerized networks and distributed databases, the role of knowledge management is more crucial than ever. Unfortunately, a major part of organizational implicit knowledge, as its most important type of knowledge, is lost or neglected gradually due to lack of necessary attention and proper storage. To alleviate such problems, organizational memory systems have been introduced as active computerized systems to organize current knowledge in organizations through active and informed collecting, retaining and redistributing it among the right people at the right time. The present study aims at investigating the relationship between organizational memory and organizational learning among employees of public organizations in Kerman. The population consists of all the 3119 employees of public organizations in Kerman. To acquire the sample, stratified systematic sampling method and Cochran formula were applied and 342 employees were selected. To analyze the data, descriptive and referential statistical methods as well as Spearman test were utilized. The instruments included Organizational memory and organizational learning standard questionnaires. Research findings indicated that there is a significant relationship between organizational memory and organizational learning.

Keywords: organizational memory, organizational learning, public organizations

1. Introduction

Economic studies indicate that nowadays, information constitutes a higher percentage of production costs of a product compared with raw materials (Guerrero & Pino, 2001). On the other hand, during their operations, organizations achieve experiences and knowledge which are considered highly valuable and can help them perform their organizational processes better in the future. Such knowledge, the so-called organizational knowledge, includes experiences derived from various, successful and unsuccessful, projects, confronting with new professional problems, situations, and initiatives in order to facilitate working procedures. Therefore, organizational knowledge is considered as the main capital of any organization and requires management. In one hand, a passive information system cannot manage such knowledge that includes implicit and mental resources as its important parts and requires a dynamic system. Such a system is called organizational memory system and is responsible for collecting the organizational knowledge and redistributing it actively among organizational members and staff. To be more precise, organizational memory is an instrument to transfer the knowledge acquired in the past to the present activities (Ayazi & Shams Aliei, 2007).

Building a learning environment and increasing the competencies and HR capabilities are necessary to establish any organization in which each member looks for being informed of the needs to change and to acquire relevant information and knowledge in order to satisfy such needs and to utilize the acquired knowledge in practice to adopt oneself and the organization with the changes occurred in the external environment (Taslimi, Farhangi et al., 2006). In the present paper, the relationship between organizational memory and organizational learning among employees of public organizations of Kerman is examined. The present study aims at investigating the relationship between organizational memory and organizational learning in public organizations of Kerman.

2. Literature Review

When we look at studies done in Iran, we see such aspects of the issue are examined. In 2006, in a research on organizational learning mechanisms, Taslimi, Farhangi and Smaili devised a basis for establishing a learner organization in Iranian National Oil Products Refining and Distributing Company and concluded that this company enjoys proper organizational learning mechanisms, identifying learning and development needs and satisfying development learning needs and implementing learned knowledge in practice.

In 2008, Beig and Ghavamifar conducted a study to provide a conceptual model of organizational memory in dynamic virtual organizations learning to provide a model of organizational memory to dynamic virtual organizations and enhance learning in such organizations in Iran. In 2009, Javanmard and Sakhaei conducted a research, namely, A study of the relationship between personal skills, organizational learning, innovation and organizational performance in SMEs in Markazi province in Iran. They concluded that personal skill relates to organizational performance positively. In the meantime, the relationship between personal skill and organizational learning and innovation is straightforward and positive. In 2010, Khanalizadeh, Kordnaich and Fani conducted a study, namely, 'The relationship between organizational empowerment and organizational learning in Tarbiat Modares University' and concluded that there is a significant relationship between organizational learning and organizational empowerment.

The specific aspects that are not touched upon or the domestic literature is lacking, should be emphasized as a contribution to domestic literature. There are a lot of studies on organizational memory in foreign literatures and that some of them are introduce below. In 1995, Nonaka and Takeuchi studied the social aspects of organizational memory and knowledge generation. In the same year, Stein defined organizational memory and studied its impact on the present activities such as decision making, organizing, conducting, designing and controlling the organization. In 1991, Huber introduced organizational memory as a basis for organizational learning. Day (1994) defines organizational memory as a repository for collective insights contained within policies, procedures, routines and rules that can be retrieved when needed. According to Robbie (1995), organizational memory includes behavioral and conceptual components and finally, Schwartz (1998) believes that organizational memory consists of two key components: knowledge base and a well-defined set of meta-knowledge.

3. Theoretical Framework and Research Hypotheses

3.1 Organizational Memory

There are ample definitions on organizational memory. Some definitions are provided below. Organizational memory improves and enhances organizational knowledge by merging dispersed knowledge in the organization through acquiring, organizing, disseminating and re-using it (Jacobsen, 2004).

The system of organizational memory is to accumulate distributed knowledge in the organization and makes it possible to distribute and reuse this knowledge. In other words, organizational memory is a mean by which knowledge from the past is brought to bear on present organizational activities (Stein, 1995). In fact, the main task of organizational memory is to provide necessary knowledge to perform present functions of the organization by which one learn from ones behavior by looking into the past and, as a result, one can have continuous learning on the basis of organizational memory and this in turn increases organizational effectiveness and prevents organizational amnesia (stein, 1995). Organizational memory has various aspects such as personal memory, project memory, cultural memory, management memory and marketing memory and research and development (R&D) memory (Beig & Ghavamifar, 2008).

In this study, since the statistical population includes public organizations of Kerman and only four aspects of organizational memory were found in these organizations, the relationship between personal, cultural, management and R&D memory with any of the organizational learning aspects was investigated. The results of organizational learning are in the memory of individuals. Personal memory consists of implicit and explicit knowledge of organizational members (Lernken et al., 2000). Cultural memory is one of the components of organizational memory which impacts on the personnel's performance and identifies their objectives' direction and mental states. A good cultural memory can help create and develop other memories as a back-up. Therefore, it should be perceived and implemented by most of the employees (Corbett, 2000). By management memory, it is meant to define the information flow and cooperation mechanisms among the organization members and the management (Beig & Ghavamifar, 2008). Research and development memory is the information concerning conducted training courses for organizational members and cooperating with universities and research centers and things of that nature (Beig & Ghavamifar, 2008).

3.2 Organizational Learning

Organizational learning is one of the effective theories of leadership which was initially discussed by March et al. in 1963. In this attitude, organizational learning is an adaptive process with emphasis on standard practical techniques to achieve organizational goals (Aghahosseini, 2003). Organizational learning terminology apparently refers to personal learning in the organization while organizational learning points out group learning in organizational level. Personal learning happens through studying, interviewing, experimenting, practicing, and developing effective mental models in the mind while organizational learning happens when the group learns to interact, to share the knowledge and to act collectively so that the mixed capacity of the group is increased and the capability of understanding and effective practice can be achieved (Bennett & Bennett, 2008). Organizational learning can be considered as a dynamic process to generate, acquire and collect knowledge in order to develop the resources and the capacities which lead to better organizational performance (Allameh & Moghadami, 2009).

Templeton et al., (2002) believe that organizational learning is a set of organizational measurements such as knowledge acquisition, information distribution and information interpretation which impact on positive organizational evolution consciously or unconsciously. Argyris and Schon (1996) define organizational learning as the process of detecting and correcting the errors. Dodgson (1993) describes organizational learning as: the way firms build, supplement, and organize knowledge and routines around their activities and within their cultures and adapt and develop organizational efficiency by improving the use of the broad skills of their workforces.

Nonaka and Takeuchi (1995) introduced organizational learning as organizational domination on related knowledge to its activity scope. According to their ideas, the process of knowledge domination (organizational learning) includes three aspects: (a) knowledge acquisition (identifying and collecting useful knowledge), (b) using the knowledge (practical application of knowledge), and (c) knowledge transmission (distributing and disseminating the knowledge throughout the organization) (Allameh & Moghadami, 2009). The present paper examines the relationship between organizational memory aspects (personal, cultural, management, and R&D memory) and the aspects of organizational learning (knowledge acquisition, dissemination, and interpretation) in public organizations of Kerman. The Kerman is in south east of Iran. Since it has been paid little attention to Organizational memory and organizational learning in Public Organizations of Kerman, this study has been done in this organization and city.

3.3 Research Hypotheses

3.3.1 Main Hypothesis

There is a significant relationship between organizational memory and organizational learning in public organizations of Kerman.

3.3.2 Sub-hypotheses

1. There is a significant relationship between personal memory and organizational learning in public organizations of Kerman.
2. There is a significant relationship between cultural memory and organizational learning in public organizations of Kerman.
3. There is a significant relationship between management memory and organizational learning in public organizations of Kerman.
4. There is a significant relationship between R&D memory and organizational learning in public organizations of Kerman.

3.4 Conceptual Model of the Study

The aim of this study is to examine the relationship between organizational memory and organizational learning in public organizations of Kerman. The conceptual model of the study is illustrated in figure 1 below for better understanding of the relations between research variables.

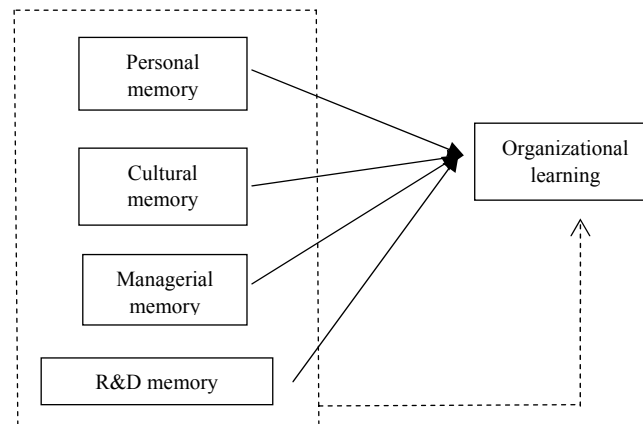


Figure 1. Aspects of organizational memory in public organizations

4. Research Methodology

The present paper is an applied research in terms of its aim and a secondary survey study in terms of data collection methods.

Thematic scope: Thematic scope of the study includes organizational basics discussion in general and the concepts of organizational memory and organizational learning in particular.

Time scope: The data were collected during the summer of 2012.

Setting scope: It includes all the staff of public organizations of Kerman.

In the present study, statistical population consists of all the staff in public organizations of Kerman in 2012. The number of employees was 2204 of which 343 were selected by applying Cochran formula and stratified sampling method.

In the present study, the sampling method is stratified sampling appropriate to the population. To achieve this sample, Cochran formula was used. Table 1 shows the population and statistical sample.

Table 1. Statistical population and sample volume public organizations of Kerman

Row	Organization name	Population	Sample
1	Cooperative, Labor and Social Welfare	115	13
2	Education	372	41
3	Industry, Mine and Trade	246	27
4	Martyrs Foundation and Veterans Affairs	95	10
5	Agricultural Jihad	545	60
6	Roads and Urban Development	367	40
7	Welfare Organization	200	22
8	Islamic Development Organization	38	4
9	Economic Affairs and Finance	103	11
10	Management and Planning	74	8
11	Cultural Heritage and Tourism	205	22
12	Rural Corporative Organization	55	6
13	Registration of Deeds and properties	400	44
14	Technical and Vocational Training	80	9
15	Endowment and Charity Affairs	48	5
16	Post	60	7
17	Culture and Islamic Guidance	116	13
Total		3119	342

Sample volume is computed by using Cochran formula as follows:

$$n = \frac{Nz^2pq}{(N-1)d^2 + z^2pq} \quad (1)$$

Where:

N = statistical population volume

n = sample volume

Z = the amount of standard unit normal variable which is 1.96 in 95% confidence interval

P = the existing construct in the population and one can consider it 0.5 if it is not available

q = the percentage of people who lack the existing construct in the population ($q = p - 1$)

d = standard error of difference that is 0.05. So, by applying the above mentioned population volume, we have:

$$n = \frac{3119 \times 1.96^2 \times 0.5 \times 0.5}{3118 \times 0.05^2 + 1.96^2 \times 0.5 \times 0.5} = 342 \quad (2)$$

As shown in table 1, this sample is identified with given ratios for each organization (Sarmad, Bazargan & Hejazi, 1998).

In the present study, a standard questionnaire that measures the relationship between organizational memory and organizational learning is devised based on five Likert scale (very low, low, medium, high and very high) by the researcher. The questionnaire consists of two parts. The first part measures organizational memory and consists of 21 questions. The second part measures organizational learning and consists of 13 questions. Face validity is used to measure the validity of the questionnaire. To this end, the questionnaire was submitted to eight professors of the field and they were asked to comment on each questions' capability to evaluate the relevant goal. According to their opinions, small changes were made in the questionnaire and finally the validity of the questionnaire was confirmed. Concerning the reliability of the questionnaire, a sample including 30 questions was distributed among the statistical population and Chronbach's alpha was computed by SPSS software. The obtained Chronbach's alpha was 0.86 for the organizational memory questionnaire and 0.89 for the organizational learning questionnaire. It indicates that the questionnaire enjoys proper reliability. The ratios of Chronbach's alpha are presented in table 2.

Table 2. Chronbach's alpha ratios of the aspects of organizational memory

Variable	Crhonbach's alpha
Personal memory	0.85
Cultural memory	0.87
Management memory	0.86
R&D memory	0.87
Organizational learning	0.89

5. Result of the Study

To test the above mentioned hypotheses, Spearman's test was utilized. First, the tests were used to study the main hypothesis and then other sub-hypotheses were examined.

By conducting Spearman's correlation test to study the significance of the relationship between the variables of main hypothesis in public organizations of Kerman at 95% confidence level, P-Value was computed as $\text{sig} = 0.000$. Since $\text{sig} < 0.05$, H_0 is rejected. It means that there is a positive and significant relationship between organizational memory and organizational learning in the public organizations of Kerman.

By conducting Spearman's correlation test to study the significance of the relationship between the variables of first sub-hypothesis in public organizations of Kerman at 95% confidence level, P-Value was computed as $\text{sig} = 0.03$. Since $\text{sig} < 0.05$, H_0 is rejected. It means that there is a positive and significant relationship between personal memory and organizational learning in the public organizations of Kerman.

By conducting Spearman's correlation test to study the significance of the relationship between the variables of second sub-hypothesis in public organizations of Kerman at 95% confidence level, P-Value was computed as $\text{sig} = 0.001$. Since $\text{sig} < 0.05$, H_0 is rejected. It means that there is a positive and significant relationship between cultural memory and organizational learning in the public organizations of Kerman.

By conducting Spearman's correlation test to study the significance of the relationship between the variables of third sub-hypothesis in public organizations of Kerman at 95% confidence level, P-Value was computed as $\text{sig} = 0.001$. Since $\text{sig} < 0.05$, H_0 is rejected. It means that there is a positive and significant relationship between management memory and organizational learning in the public organizations of Kerman.

By conducting Spearman's correlation test to study the significance of the relationship between the variables of

fourth sub-hypothesis in public organizations of Kerman at 95% confidence level, P-Value was computed as $\text{sig} = 0.003$. Since $\text{sig} < 0.05$, H_0 is rejected. It means that there is a positive and significant relationship between R&D memory and organizational learning in the public organizations of Kerman.

6. Conclusions and Suggestions

The present paper examined the relationship between organizational memory and organizational learning in the public organizations of Kerman. Confirming the above mentioned hypotheses indicates that organizational memory as a comprehensive computerized system to collect the cumulative knowledge in an organization and make this knowledge available in order to improve the productivity and effectiveness of knowledge-based procedures.

The present study indicates that the major application of organizational memory is to help organizational learning process. Considering that there is a positive and significant relationship between organizational memory and organizational learning in this research, namely, the more attention is paid to organizational memory, the more organizational learning happens, such organizations should pay more attention to organizational learning processes and, consequently, to organizational memory and have some plans for this area in order to act in an effectively and efficiently. Considering that there is a significant positive relationship between each dimension of organizational memory (personal memory, cultural memory, management memory and R&D memory) and organizational learning in the organization. Therefore, the importance of organizational memory for this organization in achieving the efficiency and appropriate use of resources and increase the productivity (that is benefits of organizational learning) has been determined. Based on these findings and to improve, facilitate, share, and disseminate the knowledge in such organizations, following suggestions are provided for all managers of public organizations:

1. Supporting organizational culture to share and transfer the knowledge
2. Identifying knowledge storing places
3. Identifying the elites who possess the required organizational knowledge
4. Establishing a strong organizational memory acceptance culture and contributing in this process
5. Creating a strong learning culture in the organization
6. Enhancing the application of organizational memory in order to resolve the new problems, learning, and decision making by senior managers

6.1 Research Limitation

Lack of sufficient knowledge in the field of academic research in public organizations, no standardization of administrative functions and processes of the surveyed organizations and deficiency conducted field investigation in this field can be attributed to the limitations of this study. Also, lack of time and cooperation of these organizations' employees to complete the questionnaire or in person interview of the research topic can be considered as part of the problems of this research.

6.2 Future Research Directions

There are numerous types of organizational memory. But this study investigates relationship between only three types of organizational memory and organizational learning. It is suggested to other researchers to investigate relationship of other types of organizational memory and organizational learning. Also, since this study was conducted in public organizations, different results can be obtained on private companies. Therefore, with comparative study between results of public organizations and private companies one can understand the difference.

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