Studying the relationship between culture and organizational commitment with knowledge management (case study of Tehran’s Tavanir Company)

Ali Pourashraf, Fatemeh Ziglari, Jeiran Khansari

ABSTRACT

Knowledge management in leading organizations helps to create sharing of knowledge among employees and create value by converting human capitals to organizational intellectual property. This research tries to examine relationship between culture and organizational commitment with knowledge management in Tavanir company. The research methodology of this study was descriptive-correlational one. A questionnaire method is used to gather data and evaluating knowledge management, organizational commitment and culture features. The questionnaire has 38 questions about knowledge management, 24 questions about organizational commitment and 30 questions about organizational culture and its' designed by Likert scale and distribute among 300 members of organization. Sampling was simple random one and 267 people participated as research subjects. The results show that there is direct and significant relationship between knowledge management and organizational culture, however, a significant relation between organizational commitment with knowledge management and organizational culture with organizational commitment have not been observed.

Key words: Organizational Culture, Organizational Commitment, Knowledge Management, Tavanir Co.

Introduction

In case of knowledge importance as a main resource for organizations, an increasing wisdom has been created in business environment [19]. The new knowledge-based economy cares for spreading and applying information and the knowledge and their production. In new economy, individuals and organizations are bound to maintain and promote the knowledge a capital in line with innovation. Learning ability, adoptability and change, are the main factors for companies and organizations survival in knowledge-based economies. Knowledge management has attracted attention of academics, researchers and executive managers in organizations [3]. Knowledge management as an interdisciplinary definition, includes a foundation of different abilities in fields of management, library and informing science, economy, computer and etc. This is why in publishingmarket; different books with different views are published by different experts [4]. Knowledge management is novel effort of century called era of wisdom, to maintain, direct and increase the knowledge capitals of organizations purposefully, and it mentions that investing in science will bring the best and the most benefit. Wirosok believes that organizations must take a precise look on organizational culture before knowledge acts. Organizational culture, is referred as a main factor in knowledge management. Ability and capability of using the information and technology and innovation ability in management and processes relies on the learning ability which is hidden in organization. Knowledge management system in learner organization, must be able to coordinate working activities and individuals learning altogether and also must include sufficient motivations and incentives so can attract all members and involves them in activities within the organization. Existence of a knowledge- based culture and an appropriate human foundation (Culture), are the main reasons of being successful in implementing knowledge management in organizations. Statistics indicate that 50 percent of knowledge management implementation's problems lies in culture and human force, and structural and technological problems take 25% separately. Donport and Prosat believe that knowledge management in pioneer organizations utilizes creating knowledge sharing culture among employees and creates value for organization by turning human capitals into organized intellectual assets. Different aspects of each organization, considering local conditions of that organization, may influence knowledge management of
employees. Hence, considering importance of this topic, in present research, it is tried to study the relationship between commitment and organizational culture with knowledge management in Tavanir Co.

2. Theoretical foundations

2.1. Knowledge management:

2.1.1. Knowledge management literature:

Knowledge management has root in several topics which play rules in organizations (businesses) development, such as comprehensive quality management, business process re-engineering, information systems and human resources management. Knowledge management is created by strategy consultants and conferences organizers and scientific meetings of management in early 1990s, however discussion about this knowledge had been begun earlier [20]. In 1965, Marshal stated that a huge part of enterprises' investing is composed of their knowledge. He also argued that knowledge is the most powerful engine of production; hence, organizations have focused on its management increasingly. From historical point of view, three generations of knowledge management are known. The period between 1990-1995 is the first one. In this time period, most effort was concentrated on knowledge management definition, studying its potential advantages for organizations or companies and designing special projects of knowledge management [21]. Progress in artificial intelligence science affected knowledge management researches, especially in knowledge saving case, as well. Second generation had been emerged in 1996, by creating new jobs for knowledge management specialists and knowledge senior managers. They combined different resources of knowledge management, and got into organizations serious daily problems rapidly. In this generation, knowledge management research concentrates on topics such knowledge definition, business philosophy, systems, operations frameworks and applications. In operational level, knowledge management insisted that knowledge management is systematic in case of organizational change, and evaluating systems manage contents and tools and they must develop altogether. This novel viewpoint, has resulted the third generation of knowledge management which is already created by new methods and results. According to Vig, difference between this generation and previous ones, lies in size of cohesion or integration of knowledge management withphilosophy, strategy, objectives, activities, systems and organization procedures, and this fact that how the knowledge management is turned to be a part of daily life and incentive of employees. It seems that the third generation focuses on the connection between science and the action.

2.1.2. Knowledge management definition:

In order to recognize each concept, we must have a comprehensive definition about it. There is no exception for knowledge management, hence first, it has to be defined (Salehi and Kheirandish, 1387). Knowledge management is a system and makes some procedures for organization components: Knowledge identification (determination of vacuums and to provide the objectives), knowledge training (fixing the defects), applying the knowledge (implementation and operational effectiveness of knowledge), knowledge sharing (creating appropriate technologies to share knowledge), knowledge development (employees dynamic and increasing their capabilities), knowledge saving (maintenance, accessibility and updating knowledge) and knowledge evaluation (evaluating knowledge efficiency of organization). Science, is the most important topic in knowledge management. It is vain to talk about knowledge management without a proper and deep understanding of knowledge. Knowledge is a combination of experiences, information and expert arranged attitudes. Knowledge is not data, nor information. Knowledge can create new information and knowledge, but information is impresible and passive; meaning it cannot produce other information by itself. Aristotle divides knowledge into three categories: Theoretical knowledge that aims to understand and explain the phenomena; Manufacturing knowledge which aims to understand phenomenon's manufacturing and production method; Functional knowledge which aims to transfer the way of dealing with phenomenon. Researchers consider two types of interactions as essential in knowledge production of an organization:

1) Interaction between tacit knowledge and explicit knowledge;
2) Interaction between individual and organizational knowledge, in fact, interaction or continuous sharing of knowledge in this way, will lead to creation of new knowledge.

Queen has defined knowledge in four functional levels: level one: knowing things, which is achieved through formal education. Level two: Knowing HOWs; in this level the scientific principles of a discipline, or book learnings comes to effective implementation. Level 3: Knowing Whys i.e. a deep how being knowledge of cause and effect relations of a discipline. At this level, the person goes beyond performing the duties and solves a more complex and wide problem. Level four: creativity with consideration of WHYs, this level of knowledge makes the organization dynamic.

From informing point of view, knowledge flow consists of four main activities of producing, saving, transferring and applying the knowledge.
2.2. Organizational culture:

2.2.1. Organizational culture definition:

There are diverse definitions for organizational culture; but here, some prevalent ones are brought. Some scientists and experts have focused on organizational culture values. Organizational culture represents common perception of organization's members which affects their behavior. In any organization, there are values, symbols, rituals and myths that have constantly changed over time. These shared values determine how the employees have understood their world and how respond to it [7]. The main core of organizational culture is composed of values which is in common between organizations' members and based on these values, organizational behaviors are made [5]. Some others have focused on intangible and unwritten parts of organization. Hence, they consider the culture as what will be trained to new members as an appropriate phenomenon and indicates intangible and unwritten part of organization [13], and eventually, some others have paid attention to environmental factors in organizational culture definition. Edgar Shine, considers the culture as a pattern of fundamental assumptions which will be created, discovered and grown by a determined group to effect external adaptation problems and internal integration.

2.2.2. Characteristics of a powerful organizational culture:

1- Agreement between senior management and lower level employees: Although the organizational culture is a set of beliefs and common values which affects the thought and behavior of organization's members, but it must be always noted that may there is a visible significant separation between fundamental beliefs and dreams of senior management and lower level employees of organization [14]

2- Agreement between members: In a strong organizational culture, there is agreement between organization's members and importance of special values [11]. A strong organizational culture makes it easy to move in path to fulfill the objectives. This is provided a result of employees' agreement and understanding with common organizational culture [15].

3- Cultural forms and expressions: In organization, we always see ceremonies, stories, heroes and slogans [11].

4- Forming the attitudes: In any organization, culture considering its strength, can influence forming the attitudes and behaviors of organizations' members. In a strong culture there is an attraction inherently, which persuades individuals to coalesce.

5- Increasing the efficiency: One assumption which is mentioned repeatedly is that a powerful culture makes the organization able to perform its duties appropriately. Two researchers called Dill and Kennedi believe a strong organizational culture elevates the performance and increases the efficiency [15].

6- Extensive accompaniment of employees: Organizations with a powerful organizational culture usually benefits of extensive accompaniment of employees. In such situation, managers try to extend awareness domain of employees and increase the understanding and to decrease the attitudes in diverse parts of the organization [14].

7- Decreasing the relocation: in powerful culture, individuals like their own jobs and do it well. Satisfaction is high and leaving the job is less. In this case, organizational culture is a positive factor in line with effectiveness.

8- Matching and compatibility: Organizational culture that is incompatible with external environment is doomed to failure. A research which was done about cultures of hundreds of companies indicates that if organizational culture fails to be compatible with external factor, then it is unsuccessful [11].

2.3. Organizational commitment:

There are 5 definition of organizational commitment. Kanishro [24] states that existence of different definitions actually represents this fact that how organizational commitment, determines individuals relationship with organization. These people act different in the ways of improvement or explanation of these relationships. According to Mavdy [24], commitment is identification with an organization which includes a strong belief and accepting organization's objectives and values, willingness to spend a significant effort for organization and a strong desire for staying in organization [18]. According to Morhead Griffin [27], commitment is feeling of identification and dependency to organization. Through recent decades, because of employees understanding of commitment and generally regardless the fact that commitment is considered as a key factor of organizational effectiveness and efficiency, organizational commitment has been a favorite research topic of organizational and behavioral researchers [24]. Previous research about organizational commitment, had focused on one dimensional methods for evaluation and commitment and applying behavioral and attitude (emotional). Today, it is recognized that commitment is a multi-dimensional structure and its consequences along these dimensions are also variable. If an organization wants to reduce absenteeism and transfer, and in that way, wants to improve working behavior by training more commitment between employees, then it is important to understand the way of commitment improvement and what it can do for training proper type [24].
Mayer et al., are leaders of commitment’s multidimensional approach. They have presented three dimensions of organizational commitment:

- Emotional commitment: is recognized as individual’s emotional dependency to organization and being identified through it.
- Continuous commitment: This dimension is based on Baker investments theory (1960). This theory is on this basis that by passing time, individual accumulates a capital in organization and whatever his/her experience is more, this capital is more accumulated and its lost will be more expensive for individual.
- Alen and Mayer (1990) state: the third dimension of organization commitment, in normative commitment which shows a sense of duty to continue working with organization. People with a high level of normative commitment, have this feeling that they must stay in current organization.

3. Developing the assumptions and conceptual model

Research objectives:

Studying the relationship between organizational culture and commitment with knowledge management.

Identifying the factors affecting organizational culture, organizational commitment and knowledge management in Tavanir Co.

Presenting the strategies to improve the status of knowledge management in Tavanir Co.

3.1. Research questions:

1- Which factors influence knowledge management in Tavanir Co.?
2- Which factors influence organizational culture in Tavanir Co.?
3- Which factors influence organizational commitment in Tavanir Co.?
4- What is the relationship between organizational culture and knowledge management in Tavanir Co.?
5- Is there any significant relationship between organizational commitment and knowledge management in Tavanir Co.?
6- What is the relationship between knowledge management and organizational commitment in Tavanir Co.?

3.2. Research assumption:

There is a significant relationship between organizational culture and knowledge management.

There is a significant relationship between organizational commitment and knowledge management.

3.3. Research’s conceptual model:

Conceptual model of this research is proposed in figure 1 according to questions and assumptions of research. In this model, three indices of knowledge management, organizational culture and organizational commitment along with components of each one are presented.

4. Research methodology:

This research is an applied research and based on data gathering procedure, it may be considered as
a descriptive research as well, and since the research aims to study the relationship between research variables, correlation researches are utilized. Considering the main objective of research and also location of research which are Tavanir Co. and its all employees and managers (860 individuals), in this study, a simple method of stratified sampling is used. Number of the samples is determined using Cochran formula. The sample size is calculated using the following formula:

\[ n = \frac{Nz^2pq}{N\hat{d}^2 + z^2pq} \] (1)

Therefore, the quantity of statistical sample is specified as 267, and for more assurance and considering different conditions, 300 questionnaires are provided and distributed in different centers of Tavanir Co. Information gathering tool here is questionnaire. This questionnaire is provided to evaluate research variables. 5 items Likert scale is used. In this study, standard questionnaires of Queen's measuring organizational culture (2000), organizational commitment questionnaire of Lebt Medin and colleagues (2007), and a questionnaire to evaluate the effectiveness of knowledge management processes by Fang and Chui (2009) are used. The validity of the questionnaire was confirmed by content validity method. In order to reliability test, Cronbach's alpha coefficient was used. After the test, the alpha coefficient of 0.78 for organizational culture, 0.97 for knowledge management and 0.87 for organizational commitment are achieved indicating good reliability of the study instrument. In this study, descriptive inferential statistics is also used. Descriptive statistics present summary of some measurements about sample, and inferential statistics let us judge about all statistical population based on sample results and get into an overall result. In inferential statistics part, to examine the relationship between research variables (major and minor premises), path analysis method is used. In order to implement statistical techniques, AMOS20 software is utilized.

<table>
<thead>
<tr>
<th>Table 1: Level of reliability using Cronbach's alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Organizational culture</td>
</tr>
<tr>
<td>Organizational commitment</td>
</tr>
<tr>
<td>Knowledge management</td>
</tr>
</tbody>
</table>

5. Data analysis

5.1. Model's fitting test:

Considering fitting test proposed in figure 2, there is a weak relationship between knowledge management with organizational commitment and organizational culture. Also in knowledge management variables part it may be stated that considering approximation coefficients, maintaining the knowledge has the most effect on knowledge management. Eventually, in organizational culture part, dominant properties have the most effect on organizational commitment. Considering the high obtained coefficient in culture and knowledge management, seems there is a significant relationship between these two components. Also in this test, values of 157.90 for chi-square, 74 degrees of freedom, GFI=0.943 , CFI=0.956 and RMSEA=0.04 are obtained which represent a good fitting.

Fig. 2: Conceptual model in relationships test
Table 2: Titles and abbreviations of words used in conceptual model

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO</td>
<td>Dominant properties</td>
</tr>
<tr>
<td>OI</td>
<td>Organization leadership</td>
</tr>
<tr>
<td>EM</td>
<td>Employees management</td>
</tr>
<tr>
<td>OG</td>
<td>Organization solidarity</td>
</tr>
<tr>
<td>SF</td>
<td>Strategic focus</td>
</tr>
<tr>
<td>SF</td>
<td>Success features</td>
</tr>
<tr>
<td>CC</td>
<td>Continuous commitment</td>
</tr>
<tr>
<td>NC</td>
<td>Duty commitment</td>
</tr>
<tr>
<td>EM</td>
<td>Emotional mandating</td>
</tr>
<tr>
<td>MK</td>
<td>Maintaining knowledge</td>
</tr>
<tr>
<td>SK</td>
<td>Saving knowledge</td>
</tr>
<tr>
<td>DK</td>
<td>Distributing knowledge</td>
</tr>
<tr>
<td>CK</td>
<td>Creating knowledge</td>
</tr>
<tr>
<td>GK</td>
<td>Getting knowledge</td>
</tr>
</tbody>
</table>

In following, in order to study relationship between research variables, being significant of this relationship is studied.

5.2. Studying variables’ relationships (Meaningfulness test):

Table 3: variables relationships

<table>
<thead>
<tr>
<th>Approved/Rejected</th>
<th>Significant</th>
<th>T statistic</th>
<th>Standard deviation</th>
<th>Approximation coefficient</th>
<th>Variable 2</th>
<th>Variable 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejected</td>
<td>0.958</td>
<td>0.052</td>
<td>0.076</td>
<td>0.004</td>
<td>Organizational culture</td>
<td>Organizational commitment</td>
</tr>
<tr>
<td>approved</td>
<td>***</td>
<td>6.842</td>
<td>0.103</td>
<td>0.702</td>
<td>Organizational culture</td>
<td>Knowledge management</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.803</td>
<td>-0.025</td>
<td>0.106</td>
<td>-0.026</td>
<td>Organizational commitment</td>
<td>Knowledge management</td>
</tr>
</tbody>
</table>

According to table 3, among all research indices, only the relationship between organizational culture and knowledge management is approved and there is no significant relationship between organizational culture with organizational commitment and also knowledge management with organizational commitment.

Table 4: variables relationships

<table>
<thead>
<tr>
<th>Approved/Rejected</th>
<th>Significant</th>
<th>T statistic</th>
<th>Standard deviation</th>
<th>Approximation coefficient</th>
<th>Variable 2</th>
<th>Variable 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>Organizational culture</td>
<td>Dominant properties</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>5.876</td>
<td>0.078</td>
<td>0.457</td>
<td>Organizational culture</td>
<td>Organization leadership</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>6.532</td>
<td>0.11</td>
<td>0.72</td>
<td>Organizational culture</td>
<td>Employees management</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.5</td>
<td>0.674</td>
<td>0.081</td>
<td>0.055</td>
<td>Organizational culture</td>
<td>Strategic focus</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.204</td>
<td>1.271</td>
<td>0.067</td>
<td>0.085</td>
<td>Organizational culture</td>
<td>Success features</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>3.836</td>
<td>0.106</td>
<td>0.407</td>
<td>Organizational culture</td>
<td>Organization solidarity</td>
</tr>
</tbody>
</table>

In organizational culture part also the relationships between strategic focus and success features with organizational culture are rejected and other ones are approved.

Table 5: variables relationships

<table>
<thead>
<tr>
<th>Approved/Rejected</th>
<th>Significant</th>
<th>T statistic</th>
<th>Standard deviation</th>
<th>Approximation coefficient</th>
<th>Variable 2</th>
<th>Variable 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>Organizational commitment</td>
<td>Normative commitment</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>7.795</td>
<td>0.124</td>
<td>0.968</td>
<td>Organizational commitment</td>
<td>Continuous commitment</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>7.755</td>
<td>0.147</td>
<td>1.141</td>
<td>Organizational commitment</td>
<td>Emotional commitment</td>
</tr>
</tbody>
</table>

In commitment part also, a significant relationship with all three commitments is observed.
<table>
<thead>
<tr>
<th>Approved/Rejected</th>
<th>Significant</th>
<th>T statistic</th>
<th>Standard deviation</th>
<th>Approximation coefficient</th>
<th>Variable 2</th>
<th>Variable 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>Knowledge management</td>
<td>Maintaining knowledge</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>8.726</td>
<td>0.114</td>
<td>0.994</td>
<td>Knowledge management</td>
<td>Distributing knowledge</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>7.255</td>
<td>0.102</td>
<td>0.741</td>
<td>Knowledge management</td>
<td>Saving knowledge</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>7.529</td>
<td>0.088</td>
<td>0.666</td>
<td>Knowledge management</td>
<td>Creating knowledge</td>
</tr>
<tr>
<td>Approved</td>
<td>***</td>
<td>7.154</td>
<td>0.119</td>
<td>0.854</td>
<td>Knowledge management</td>
<td>Getting knowledge</td>
</tr>
</tbody>
</table>

In knowledge management part, the relationships with all components are approved.

6. Discussion and conclusion:

In present research, the relationship between organizational culture and commitment with knowledge management is studied. In knowledge management variables part, we may say according to approximation coefficients, maintaining knowledge has the most effect on knowledge management. Also in organizational commitment section, emotional commitment has the most influence. In organizational culture part, dominant properties has the most effect on organizational culture. In knowledge management components section, relationships of all components with knowledge management are approved. In commitment section, there is significant relationship between all three commitment and organizational commitment. In organizational culture part, the relationships between strategic focus and success features with organizational culture are rejected and the relationships of other components and organizational culture are approved. Results of assumptions tests just approve the relationship between organizational culture and knowledge management. Hence, there is no significant relationship between components of organizational culture and organizational commitment and also components of knowledge management and organizational commitment in Tavanir Co.

7. Research suggestions:

Considering obtained results, following points are suggested:

1- According to organizational needs, working teams must be created and along with training teamwork skills to individuals, it must be tried to increase participation sense and continuous commitment and with maximum utilization of these teams, collaborative management of employees and solidarity improvement occurs.

2- Management's full commitment against ideas, creative activities, such as funding for implementation of ideas and making conditions for employees to access their needed information and also utilizing different idea-creation techniques such as Brainstorming and Delphi techniques along with necessary incentives can be effective in improving the production of organizational knowledge.

3- By defining objectives and success criteria and also creating knowledge-based atmosphere and culture in organization, it is possible to encourage employees to increase production and transfer of knowledge in the organization.

4- By presenting appropriate trainings, it is possible to optimize the need feel of creating a proper culture in organization and by creating working team and keeping knowledge-centric individuals, data and available information in organization will be preserved.

8. Future work suggestion:

1- Adoptive studying of research topic among two organizations or more in order to a better investigation on research variables.

2- Investigating the relationship between localized organizational culture and knowledge management process.

3- Investigating each components of organizational culture and knowledge management components separately using structural equations model.

References


