RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND TEACHERS' ENTREPRENEURIAL ORIENTATION WITH THE MEDIATING ROLE OF KNOWLEDGE MANAGEMENT

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ABSTRACT

This study aims to investigate the effect of organizational culture on the entrepreneurial orientation of the high school teachers with regard to the mediating role of knowledge management in Iranian Saveh City in 2012. The population of the research included 600 teachers of Saveh high school teachers, among whom 234 subjects were selected as the research sample by using Cochran formula and relational stratified random sampling method. After distributing and collecting the questionnaires we applied the Structural Equation Modeling using Smart PLS 2 and LISREL 8.8 to analyze the collected data and to test the hypotheses. This analysis was done in two sections: measurement model and structural model. In the first section, technical features of the questionnaire were investigated and the required corrections were applied. In second section, structural coefficients of the model were used to test our proposed hypotheses. Our results showed that organizational culture and its dimensions have a significant effect on the entrepreneurial orientation of the teachers. The findings also showed that the mediating variable of knowledge management has a significant effect on the relationship between organizational culture and the entrepreneurial orientation of the teachers.

KEYWORDS: Knowledge Management, Organizational Culture, Entrepreneurial Orientation, Innovation
INTRODUCTION

Nowadays, the schools play a vital role in the innovativeness and development of the societies so that along with the fields of teaching (by the teachers) and researches (by the students), the third mission of the school is to transfer the available knowledge of the schools to the society, because such a transfer will lead to the economic development of the society at large (Etkowitz, 2004). The inevitable importance of this third mission of the schools forces us to pay special attention to the students. The available literature of the field leads us to the entrepreneurial concepts, and one of the most frequent concepts of this field is the entrepreneurial orientation. From the individual point of view, entrepreneurial orientation refers to the important capabilities of the persons in accepting the factors of entrepreneurship including the risk-taking, innovation, pro-activeness, aggressive approach, and autonomy (Covin and Wales, 2011). On the other hand, the rapid changes in the external environments of the organization and the increase of the competition between the competitors have made the managers to re-think about the proper ways of knowledge management (Fong and Kowk, 2009). As a crucial part of the life of the organizations, knowledge is based on the people of the organization and their capabilities on one hand, and on their group characteristics on the other hand, while this latter factor is mainly affected by several factors including the organizational culture; so that the values and norms of the employees of the organization play a key role in the proper and complete implementation of the process of knowledge management in the organization (Ciganek, et al., 2010).

Organizational culture is one of the effective factors on the successfulness of the knowledge management in organizations. Indeed, organizational culture is the base of the knowledge management and plays an important role in the success or failure of the organizational strategies. In order to be implemented in an organization, knowledge management has to be coordinated with the available values and norms of that organization because every organization has its exclusive organizational culture that shows the people of that organization how to understand and mean the events. Moreover, the experts of the knowledge management have shown that the organizational culture supports the sharing of knowledge in the organization. These experts believe that the organizational culture is a suitable ground for promoting the needed knowledge and skills for improving the processes of knowledge management (Jones, 2009). Meanwhile, the role of the effective factors on the entrepreneurship in organization is of special importance. As Wiklund and Shepherd have stated, creating the knowledge in organization will reinforce the entrepreneurial activities in organization and consequently it will lead to the improvement of the organizational performance. Entrepreneurial orientation is a concept that is frequently used in the literature of the entrepreneurship and in relation with the concept of knowledge management (Lee and Sukoco, 2007).

Organizational culture can act as a source for creating sustainable competitive advantages because it cannot be easily imitated and adopted by the competitors. On the other hand, knowledge management cannot be successfully run without having a suitable and trustful culture of participation in organization. If a culture fails to encourage the sharing and distribution of knowledge, then the knowledge management will encounter several problems (Davenport & Prusak, 1998).
Yet the situation of the entrepreneurial concepts in organization depends on the proper application of different parts of the knowledge management such as knowledge creation and knowledge transfer. Specifically, entrepreneurial orientation of the people (that refers to their risk-taking, innovation, pro-activeness, aggressive approach, and autonomy) is affected by different organizational factors like the organizational culture; so that the coordination between the values and norms of the organization (that is the manifest of the organizational culture) will lead to creation and reinforcement of the components of entrepreneurial orientation in the individuals. Weak organizational culture will hinder the individuals to attempt to preserve their efficiency and power and make them fail to share and disseminate their knowledge (Wang, 2003). Organizational culture is necessary for facilitating the participation of the employees and creating the knowledge. Thus when the organizations don’t have a proper understanding of their own organizational culture and its dimensions and indexes, they will practically encounter several problems such as the organizational confliction and deterioration of their performance. This is why the organizations have to help their managers understand the organizational culture in order to be able to catch a suitable vision about the governing atmosphere over their organization and emphasize on their strengths and try to treat the weaknesses.

The literature review shows that one of the main barriers against the creation and reinforcement of the dimensions of entrepreneurial orientation in the employees is the contradiction between their own values on one hand, and the inability of the organization to run a proper cycle of the knowledge management on the other hand. Moreover, organizational culture has an important contribution in the establishment of the knowledge management, and changing the organizational culture is one of the most important aspects of every knowledge management system. Considering the importance of the subject, this research aimed to study the direct effects of organizational culture on the entrepreneurial orientation with regard to the mediating role of the knowledge management in the relationship between the two above-mentioned variables.

LITERATURE REVIEW

1. Organizational culture:

Nowadays, in the current turbulent environments, the organizations have to change their structures and processes to be adapted to the environmental needs in order to fulfill their missions. Prior to conducting any change, the organizations must define and investigate their own organizational culture. Understanding and evaluating the potential effects of the culture and management will lead to come to a better understanding of the tangible and intangible effects of the culture on the management. Several definitions have been offered for the organizational culture from different points of view. Robbins (2005) defines the culture as a system of concepts and beliefs that are common amongst the members of the organization and determine their behavior against each other and against the others outside the organization. Denison (2000) points out that the organizational culture is the fundamental values, beliefs, and moral principles of the organization that plays a basic role in the organizational management system. According to Barney (1986) organizational culture is an important driving engine in the movements of the organizations (Wang, et al, 2011); and Tseng (2010) states that the organizational culture is an effective factor on the interactions between the members and their values. Based on different
definitions, different models have been offered for the organizational culture and its characteristics.

In this research we have adopted Denison's model of organizational culture (2006) that is newer and more compete in comparison to the other available models. Figure 1 shows Denison's model of organizational culture. In his model, cultural characteristics include the involvement in work, compatibility (adoptability), mission, and consistency. The description of each of the above characteristics along with their measurement indexes are as follow:

![Denison's Organizational Culture Model](image)

**FIGURE 1: DENISON'S ORGANIZATIONAL CULTURE MODEL (DENISON, ET AL, 2006)**

A) **Involvement (Being involved in work)**: effective organizations make their employees able, establish their organization on the basis of working groups, and develop the capabilities of their human resources at all levels; thus the members of the organization feel commitment against their work and see themselves as a part of the body of the organization. At all levels, the individuals feel that they are involved in decision makings and these decisions are effective in their work, and their work is directly tied with the organizational goals (Rahimnia and Alizadeh, 2009: 156) In this model, the mentioned characteristic is measured by measuring three indexes:

- **Empowerment**: the individuals have the needed authority, initiative, and ability to administer their work. This makes them feel the sense of ownership and responsibility in organization.
- **Team orientation**: team works in order to fulfill the common goals are highly appreciated in the organization, so that like the managers, the employees feel that they are responsible for their work. These organizations rely on the groups for doing the works.
• **Capability development**: in order to supply their needs and survive in the completion arena, the organizations develop the skills of their employees continually (Denison, et al, 2006).

**B) Consistency**: consistency includes the values and systems that are the foundations of creating a strong culture in the organization (Rahimnia and Alizadeh, 2009: 156). Consistency is measured by three indexes as follow.

• **Core values**: the members of the organization are common in some values that form their identity and the clarity of their expectations.

• **Agreement**: the members of the organization are able to come to an agreement in the cases of the difference of their attitudes. This agreement includes the agreement on fundamental levels and the ability of resolving the contradictions.

• **Coordination and integration**: organizational departments that have different functionalities can co-work to meet their common goals and objectives. The organizational frontiers will not be messed through such co-working (Denison, et al, 2006).

**C) Adaptability (Compatibility)**: the organizations that are integrated well will change difficultly; thus internal integration and external adaptability can be advantages and priority for the organization. Adaptable organizations are conducted by the customers; they take risks, take lessons of their mistakes, and they are open to change on the basis of their capacity and experience (Rahimnia and Alizadeh, 2009: 156). They are frequently improving the abilities of the organization in order to value the customers. Adaptability is measured by three indexes as follow:

• **Creating change**: the organization is able to create new ways for meeting its needs and know the environment of the organization, and respond to the current stimuli and predict the future changes.

• **Customer focus**: the organization is able to understand the customers and respond their needs and to be prepared to supply their doming needs. Indeed the customer focus is a level at which the organization is conducted toward the customer satisfaction.

• **Organizational learning**: this index measures the signals that the organizations receive and interpret; and the opportunities that the organizations create to encourage the creativity, knowledge and abilities (Denison et al., 2006).

**D) Mission**: it would be said that the most important feature of the organizational culture is its mission. The organizations that don't know where they are and what is their situation will be in a wrong path. Successful organizations have a clear idea of their own goals and direction so that they clearly define their organizational and strategic goals and the mission of themselves. Most problematic organizations are those who have to change their mission. When an organization changes its mission, then it has to change its strategy, structure, culture and behavior as well. In such conditions, a strong leader specifies the mission of the organization and creates a culture that supports that vision (Rahimnia and Alizadeh, 2009). This characteristic is measured by three indexes as follow:
2. Entrepreneurial orientation:

Entrepreneurial orientation provides a mental framework and a perspective on entrepreneurship that is mirrored in the current activities of the organization and its organizational cultures. Most researchers believe that the organizations can meet their goals more efficiently with a strong entrepreneurial orientation (Dess and Lumpkin, 1995). Lumpkin and Dess (1996) have proposed five constructs for measuring the entrepreneurial orientation that are summarized in table 1.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>The company tends to new ideas and creative processes whose result can be a new product, service or technological processes.</td>
</tr>
</tbody>
</table>
3. Knowledge management:

Knowledge management is one of the tools for organizations to adjust themselves with the changes of competitive environment and to survive in this environment. Our today changing world forces the organizations to look for new tools like the knowledge management. Knowledge management is a process that helps the organizations to find, select, organize, and publish important information. It is an expertise that is necessary for activities such as problem solving, dynamic learning, and concluding (Davenport and Prusak, 1998). Knowledge management can improve a range of organizational performances by enabling the organization to have a smarter performance. In recent years, knowledge management is considered as a vital strategy for gaining the competitive advantage (Yang, 2010). Different researchers have focused on different dimensions of the knowledge management and have defined it from different points of view. There are several definitions for the knowledge management, but it is important to note that the main objective of the knowledge management is to improve the organizational performance by approaching to the explicit planning, implementation tools, processes, systems, structures, and culture of creating, sharing, and utilizing the knowledge in all decision makings (Holt, et al, 2007). Karl Wiig (2002) believed that the knowledge management is to create the needed procedures for identifying and absorbing the information and knowledge from the internal and external environment and transferring them into the decisions and activities of the organization and persons (Wiig, 2002).

Knowledge management includes human behaviors, attitudes, and human capabilities, business philosophies, patterns, operations, procedures, and technologies (Wiig, 2002). Knowledge management can be used as the creation, acquisition, sharing, and implementation of the knowledge for promoting the organizational performance (Dilek and Ars, 2008; Wen, 2009; Rehman, et al., 2010). Knowledge management emphasizes on the identification and presentation of the knowledge, so that it can be shared officially and re-evaluated. Most researchers believe that knowledge management is to convert the data into information, and then to convert the information into knowledge (Vaccaro, et al, 2010). Perhaps the best definition that encompasses the common points of other definitions is the definition provided by NASA in
which the knowledge management is defined as to make the relevant knowledge accessible for those who need that knowledge at the due time (Jafari, et al, 2007).

Knowledge management and its relevant fields emphasize on the fact that in the modern global economy, accessing the sustainable competitive advantage is dependent on the ability of organizations in developing and using knowledge-based resources in the organization. Indeed knowledge management is the strategic value-adding attempts of the organization in order to improve the effectiveness of the organization during the changes of the business and social environment (Joo and Lee, 2009).

Newman and Conrad (2000) state that the knowledge streams in the organization by some processes through which the data is converted into information, the information is converted into primary knowledge, and finally that primary knowledge is converted into meta-knowledge. They resemble this process to a life cycle and state that the mentioned cycle includes for steps (Fig. 2).

FIGURE 2: GENERAL MODEL OF KNOWLEDGE MANAGEMENT (NEWMAN AND CONRAD, 2000)

A. Creating the knowledge: this step includes all activities that are related to creation of new knowledge in system, and it contains developing, discovering, and capturing the knowledge.

B. Preserving the knowledge: includes all activity that makes the knowledge persistent in the system. In this regard, the researchers refer to the most important factor of knowledge preservation, that is, the organizational memory. Organizational memory is the ability of the organization to preserve the knowledge.

C. Transferring the knowledge: this step refers to all activities that are involved in transferring the knowledge stream from one person to the next. It contains all relevant communications, translations, interpretations, and purification of the knowledge.
D. Applying the knowledge: it refers to all activities that are related to the application of the knowledge in the organizational processes.

Darroch (2003) presented one of the most comprehensive and practical classification of the dimensions of the knowledge management. He revised Newman and Conrad's model and summarized four dimensions of the knowledge management in 3 dimensions: (1) knowledge acquisition, (2) knowledge dissemination, and (3) responsiveness to knowledge. Darroch's dimensions have the comprehensiveness of the cultural management field on one hand and pay special attention to the customer in the field of cultural studies on the other hand (Darroch, 2003). Additionally, he planned a questionnaire for his research on the assessment of organizational culture. His questionnaire is very frequent in social sciences, thus in this research we have adopted his questionnaire.

4. Organizational culture and entrepreneurial orientation:

As we mentioned in theoretical literature of the research, the scientists of different fields believe that the entrepreneurial activities play an important role in the successfulness of the organization. On the other hand, an important factor that is vital for the implementation of such activities in organization is the entrepreneurial orientation of the people in organization. If the employees of the organization have the characteristics such as risk-taking, innovation, autonomy, pro-activeness, and aggressive approach and apply such characteristics in their decision makings, then they would facilitate the improvement of the organizational performance (Lumpkin and Dess, 1996). In order to create the entrepreneurial orientation in its employees, the organization has to focus on its own culture and move toward the coordination between the values and norms of the employees with the norms and values of the organization (Parnell & Lester, 2007). Organizational culture is one of the most important and most effective factors on the identification, improvement, and development of the entrepreneurial organizations as mentioned in many researches that have been conducted in the field of entrepreneurship (Ghahremani, et al, 2010; Al-Swidi & Mahmood, 2011; Lee, et al, 2011).

Considering the theoretical foundations of this research on the relationship between the organizational culture and the entrepreneurial orientation, our first hypothesis is as follow: "organizational culture has a significant effect on the entrepreneurial orientation of the employees".

5. Organizational culture and the knowledge management:

Organizational culture is an aspect of the knowledge management. It is always important in the literature of the knowledge management to find an organizational culture that is relevant to the knowledge management (Jones, 2009). In an organization where the formation of the working teams and participation in the works and the trust between the employees are all known as cultural factors of that organization, these cultural factors will facilitate the free flow of the knowledge along the organization. Moreover, these factors will play their role in creation, acquisition, and dissemination of the knowledge. Thus we can conclude that the organization have to provide the freedom for the employees to participate in their activities in order to help them create, develop, and apply the knowledge (Ciganek et al., 2010). Davenport and
Prusak (1988) stated that the organizational culture considers the goals and missions of the organization and so it has a decisive role in the knowledge management. With their successful activities in the knowledge management, many organizations have shown their inherent culture as a vital factor in achieving the success (Hackett, 2000). Indeed, according to Davenport and Prusak (1988), organizational culture preserves the goals and mission of the organization and so it is necessary for all activities of knowledge management. Several studies have shown that organizational culture can be a main barrier against the success of the knowledge management (Alavi, et al., 2009). Thus the organizational culture can be both a facilitator and a barrier for the success of the knowledge management (Ciganek et al., 2010; Kaur et al., 2012). Previous studies clearly support the relationship between the organizational culture and the activities of the knowledge management, though it is not clearly known what aspects of the organizational culture facilitate the knowledge management and what aspects of it hinder the knowledge managements or what aspects have the highest effects on the organizational success and/or failure.

Delong and Fahey (2000) have shown that the organizational culture can affect the knowledge management in four following ways:

1) The role that the organizational culture plays about the nature of the knowledge and its importance for the management in organization;

2) The role that the organizational culture plays in the relationship between the employees and the knowledge of the organization;

3) Cultural patterns that specify how the knowledge has to be used in different situations; and

4) The processes through which the knowledge is created, legitimized, and disseminated in the organization.

Considering the theoretical foundations of this research on the relationship between the organizational culture and the knowledge management, our second hypothesis is as follow: "organizational culture has a significant effect on the knowledge management of the employees".

6. Knowledge management and the entrepreneurial orientation:

The fulfillment of the entrepreneurship requires special tools. One of the most suitable tools for growing the entrepreneurship and creating the organizational entrepreneurship is to employ the entrepreneurship-based knowledge management. The knowledge alone is not a considerable resource for the organization. Knowledge is not merely for knowledge, but it is for the application and for improving the performance (Allameh, et al, 2006). Thus in all aspects of the knowledge management, the organizations have to look for the innovation and entrepreneurship. Nowadays, knowledge is considered as the most important and most fundamental factor of competition (Subramaniam & Youndt, 2005). The effective knowledge management facilitates the knowledge communications and changes the needs of the innovation. Furthermore, such a management causes the increase of the innovative behaviors and consequently, the increase of the people's orientation toward the entrepreneurship in organization (Ranjit, 2004). Hence, the
knowledge management plays a key role in supporting and nurturing new and innovative ideas. Yang (2005) states that the integration of the knowledge and management will lead to the increase of new products and it will enable the companies to be pro-activeness in the market and exceed their competitors. Besides, Ansari (2009) has shown that the knowledge management in the organization can be effective on the entrepreneurial activities and organizational entrepreneurship.

The mentioned relevant relationship between the knowledge management and the entrepreneurial orientation leads us to the third hypothesis of the research: "knowledge management has a significant effect on the entrepreneurial orientation of the employees".

THEORETICAL FRAMEWORK OF THE RESEARCH

The conceptual model of this research has been drawn based on the three main constructs of the research, i.e. the organizational culture, knowledge management, and entrepreneurial orientation, each of which play a different role in the model. In this model, the organizational culture is an independent or predictive variable, entrepreneurial orientation is a dependent or criterion variable, and the knowledge management is a mediating variable. In terms of the relationship between the constructs of the research, we considered the effect of the organizational culture on the entrepreneurial orientation on one hand, the mediating role of the knowledge management in the relationship between the organizational culture and the entrepreneurial orientation on the other hand. Figure 3 shows the conceptual model of the research.

FIGURE 3: CONCEPTUAL MODEL OF THE RESEARCH

METHODODOLOGY OF THE RESEARCH

The methodology of this research is functional according to its objective, and it is a descriptive-correlative survey according to its data collection method because it has polled the opinions of the involved subjects (student of Iranian Alzahra University) to confirm its hypotheses. Moreover, this is a quantitative research with regard to the type of its collected data.
Accordingly, we planned and distributed a series of questionnaires in order to collect the opinions of the employees of library of Alzahra University, and the collected results were recorded. Since in this research the causal relationship was going to be studied, the methodology of the research is causal with regard to the relationship between the variables; and we have used the structural equation model to come to a comprehensive analysis of our conceptual model. Structural equation model is the best tool for the researches in which the observed variables have measuring errors, and the relationship between their variables is complex. Using this method we can study the indexes or observed variables on one hand and to assess the causal relationship between the latent variables and the explained value of variance (Hair and et al., 2010). Structural equation model encompasses two models: measurement model and the structural model; and the variables of the model are divided into two groups: latent variables and observed variables (Kline, et al, 2010). In this study, organizational culture, knowledge management, and entrepreneurial orientation are three main constructs each of which are based on the models of different authors as will be explained in the "measurement tool" section of this paper. Besides, each of these constructs is made of different dimensions, while each of these dimensions has been assessed by some items or questions (observed variables) as summarized in table 1.

1. Statistical population, sampling method, and sample size:

The population of the research contains all high school teachers of Iranian Saveh City that were selected by Stratified random sampling method. Considering the sample size and using the Cochran formula, we came to a sample of 234 subjects. The sample size (n) is calculated according to equation 1 on the basis of the Cochran formula:

\[ n = \frac{z^2pqN}{Nd^2 + z^2pq} \]  

\textit{(equation 1)}

where: \( p=q=50\% \) (on the basis of probabilistic method); \( z \) is the standard statistic for normal distribution that is equal to 1.96 at the confidence level of 95%; \( d \) is the maximum allowable error (equal to 5% for this research); and \( N \) is equal to 600 subjects. Thus 234 subjects were selected and in order to be sure, 250 questionnaires were distributed among the students of different university campuses in Tehran, and 227 questionnaires were replied and returned by the samples (response rate of 97%).

2. Data collection instrument:

The questionnaire of the research includes three parts: the first part contains 60 questions about the organizational culture adopted from Denison (2000); the second part contains 18 questions about the entrepreneurial orientation adopted from Hughes & Morgan (2007: 659); and the third part contains 59 questions about the knowledge management adopted from Darroch's standard questionnaire (2003: 49). Table 2 shows the main constructs of the research, the dimensions of these constructs, and relevant questions to each dimension.

\begin{table}
\centering
\caption{Constructs of the Research and Their Dimensions and Items}
\begin{tabular}{|c|c|c|}
\hline
\textbf{Construct} & \textbf{Dimensions} & \textbf{Questions} \\
\hline
Organizational Culture & & \\
Entrepreneurial Orientation & & \\
Knowledge Management & & \\
\hline
\end{tabular}
\end{table}
2.1. Reliability:

In order to assess the reliability of the questionnaire we used PLS method. This method uses the item reliability (Rivard & Huff, 1988). Item reliability in turn is calculated by assessing the factor loadings through calculating the correlation value between the indexes of one construct with that construct. If this value is equal to or more than 0.4 (Hulland, 1999) then we can claim that the reliability of our measurement model is acceptable; but if the value of the factor loadings between a question and its relevant dimension is less than 0.4, then we can remove that question from our analysis model. We have to be careful in removing the questions because we have carefully study the theoretical foundations of the research and be careful if removing the question will not interrupt our research process. In this research, after calculating the factor loadings, the items whose coefficients were less than 0.4 were removed, so that 6 questions were removed from the first part of the questionnaire (i.e. organizational culture), 8 questions were removed from the second part (i.e. knowledge management), and 1 question was removed from the third part of the questionnaire (i.e. entrepreneurial orientation) and then the number of our items (observed variables) included 122 items to be used in the next analyses.

2.2. Convergent and divergent validity:

The validity of the questionnaire was determined by two criteria that are specific to the structural equation modeling: convergent validity and divergent validity. First we used the PLS exploratory factor analysis in order to evaluate the convergent and divergent validity. As shown in table 3, all dimensions have explained their constructs well. This point implies the suitable convergent and divergent validity of the questionnaire (Pavlou & Gefen, 2004).

<table>
<thead>
<tr>
<th>Latent variables</th>
<th>Observed variables</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational culture (Denison, 2000)</td>
<td>Involvement</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Compatibility</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Mission</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Consistency</td>
<td>15</td>
</tr>
<tr>
<td>Knowledge management (Darroch, 2003)</td>
<td>Knowledge acquisition</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Knowledge dissemination</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Responsiveness to knowledge</td>
<td>21</td>
</tr>
<tr>
<td>Entrepreneurial orientation (Hughes &amp; Morgan, 2007)</td>
<td>Risk taking</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Pro-activeness</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Competitive aggressiveness</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
<td>6</td>
</tr>
</tbody>
</table>

TABLE 3: PLS EXPLORATORY FACTOR ANALYSIS FOR EVALUATING THE CONVERGENT AND DIVERGENT VALIDITY
At the next step, specifically in order to evaluate the convergent validity we used AVE criterion. The results of this criterion for dimensions of the two variables of the research are presented in table 4.

**TABLE 5: RESULTS OF THE AVE OF THE RESEARCH CONSTRUCTS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>INV</th>
<th>ADA</th>
<th>MIS</th>
<th>CON</th>
<th>KA</th>
<th>KD</th>
<th>RK</th>
<th>RIS</th>
<th>INN</th>
<th>PRO</th>
<th>AGG</th>
<th>AUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVE</td>
<td>0.79</td>
<td>0.86</td>
<td>0.82</td>
<td>0.80</td>
<td>0.70</td>
<td>0.62</td>
<td>0.61</td>
<td>0.69</td>
<td>0.65</td>
<td>0.64</td>
<td>0.62</td>
<td>0.63</td>
</tr>
</tbody>
</table>

Where: INV = involvement; ADA = adaptability; MIS = mission; CON = consistency; KA = Knowledge Acquisition; KD = Knowledge Dissemination; RK = responsiveness to Knowledge; RIS= Risk Taking; INN= Innovativeness; PRO = Proactiveness; AUT = Autonomy; AGG = Aggressive Competition.

The criterion value for the acceptance level of AVE is 0.5 (Hulland, 1999). As it is shown in table 4, all AVE values for the constructs are higher than 0.5 and these values confirms the convergent validity of the research questionnaire at an acceptable level.

On the other hand, in divergent validity, the difference between the items of a construct is compared to the items of other constructs of the model. To do this, the square root of the AVE in each construct is being calculated against the values of the correlation coefficient between the constructs. In this regard, we will need a matrix that includes the matrix main diagonal of the AVE coefficient of each construct, and the values of the upper and lower of the main diagonal.
includes the correlation coefficient between each construct and the other constructs. This matrix is shown in table 5.


<table>
<thead>
<tr>
<th>Variable's dimensions</th>
<th>AUT</th>
<th>INN</th>
<th>PRO</th>
<th>AG</th>
<th>RIS</th>
<th>KA</th>
<th>KD</th>
<th>RK</th>
<th>INV</th>
<th>ADA</th>
<th>MIS</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INN</td>
<td>0.37</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO</td>
<td>0.30</td>
<td>0.35</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGG</td>
<td>0.11</td>
<td>0.23</td>
<td>0.14</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
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Where: INV = involvement; ADA = adaptability; MIS = mission; CON = consistency; KA = Knowledge Acquisition; KD = Knowledge Dissemination; RK= responsiveness to Knowledge; RIS= Risk Taking; INN= Innovativeness; PRO= Pro-activeness; AUT = Autonomy; AGG = Aggressive Competition.
As it can be seen from the above matrix, the square root of AVE for any construct is greater than the correlation coefficient of that construct with the others, which shows that the divergent validity of the constructs is acceptable.

ANALYZING THE DATA OF THE RESEARCH

In the next step, we conducted confirmatory factor analysis using LISREL 8.8 in order to assess the used measuring model. The fitness conditions of the model are as follow: the significant level obtaining from the chi-square test (p-value) is higher than 0.05; the ratio of chi-square to degree of freedom is less than 3; the value of the statistic of Root Mean Square Error of Approximation (RMSA) is less than 0.05; the value of comparative fitness index (CFI), general fitness index (GFI), adjusted general fitness index (AGFI), and non-norm fitness index (NNFI) are higher than 0.9. As it is shown in figure 4, p-value is equal to 0.072; RMSA is equal to 0.028; and the ratio of chi-square (113.55) to degree of freedom (51) is equal to 2.23 and thus it is less than 3. Moreover, other outputs of LISREL showed that the value of CFI is equal to 0.921, the evaluated value of Z is higher than 1.96; and the values of GFI and AGFI are equal to 0.940 and 0.944 respectively. Thus the measurement models of the three main constructs of the research have an acceptable fitness.

FIG 4: CONFIRMATORY FACTOR ANALYSIS BY LISREL 8.8 SOFTWARE
The causal relationships between the organizational culture and entrepreneurial orientation, the organizational culture and knowledge management, and finally the knowledge management and entrepreneurial orientation was assessed using the structural equation model and the Smart PLS 2 software. As shown in figure 5, the relationship between the three main constructs of the research is a direct significant relationship; accordingly, the organizational culture has a positive significant effect on the entrepreneurial orientation (hypothesis 1). According to the output of Smart PLS 2 software, 42% of the changes in the entrepreneurial orientation are predicted by the organizational culture. Besides, the effect of organizational culture on the knowledge management (hypothesis 2), and the effect of knowledge management on the entrepreneurial orientation (hypothesis 3) is positive and significant as well. The causal coefficients of the paths between the three main constructs of the research show the direct and indirect effect of the organizational culture on the entrepreneurial orientation (indirectly through the mediating variable of the knowledge management) so that the direct effect has been equal to 72%, indirect effect has been equal to 20% (41% × 49%), and the total effect has been equal to 92% (20% + 72%).

![FIGURE 5: STANDARD COEFFICIENTS](image-url)

In order to confirm the hypotheses of the research we used the Bootstrapping command in Smart PLS software. The resulted output shows the t-values (Fig. 6). When the t-values stand in the interval between higher than +1.96 and less than -1.96, then the relevant parameter will be significant and accordingly, the hypotheses of the research are confirmed (Esposito-Vinzi et al., 2018).
2010). As shown in figure 6, the t-coefficients between the three main constructs of the research are higher than 1.96 and hence the corresponding hypotheses of the research are confirmed.

CONCLUSION AND SUGGESTIONS

As we said in the theoretical foundations of the research, along with the increase of the dynamisms of the environments and the complexity of today’s competitive world, the organizations are forced to change their internal structure in order to be matched with their environment. Nowadays, the survival and life of the organizations depends on their agility and flexibility. One of the most important factors for top managers of the organizations is the values, beliefs, and norms of their organization as is manifested in the organizational culture. On the other hand, knowledge plays a vital role in the organizations’ confrontation with the crises, but the knowledge itself is affected by the organizational culture, and the life cycle of the organization depends on those beliefs and norms. In our research, we found that if the organizational culture is sufficiently paid attention and runs in accordance with the future vision of the organizational activities, then then the process of knowledge management will be implemented better in the organization. This finding is consistent with the findings of Jones (2009) and Kigang, et al. (2010). Additionally, it is consistent with the findings of Cover, et al. (2012) who had found that a proper culture will lead to the successful implementation of the knowledge management in organization. On the other hand, considering the dimensions of the organizational culture, we can conclude that each of these dimensions can play a role in the relationship between the individuals and different organizational knowledge and specify how this knowledge can be employed in specific situations of the organization. This finding is consistent with DeLong and Fahey (2000).
As we mentioned earlier, the organizations have to provide suitable conditions for the employees so that the whole organization can find its entrepreneurial spirit and can easily and continuously deals with the entrepreneurial activities. Thus the suitable organizational culture is one of the most effective factors on the development and improvement of the entrepreneurial activities, while we know that the increase of the entrepreneurial activities will promote the organizational performance (Lumpkin and Dess, 1996; Alswidi and Mohammad, 2011). Moreover, Parnel and Lester (2007) state that the existence of the entrepreneurial culture and behavior in organizations will improve the performance of the organizations and will make the organization more competitive. The results of this hypothesis are consistent with the results of Ghahremani, et al. (2010) and Lee, et al. (2011) who found that the internal factors of the organization such the organizational culture are effective on the organizational entrepreneurship. The confirmation of this hypothesis leads us to claim that the organizations have to focus on their organizational culture in order to create the entrepreneurial orientation, and they have to do their best attempts to coordinate the values and norms of the employees with the values and norms of the organization.

The results of these analyses showed that the effect of the knowledge management on the entrepreneurial orientation is positive and significant. Accordingly, based on the findings of our research we can claim that the reinforcement of each of the components of knowledge management will lead to the reinforcement of the innovative and entrepreneurial behaviors in the employees. In other words, if the employees can access the resources of the knowledge, they will be more innovative and they can discover more new beneficial opportunities for the organization, and thus the performance of the organization will be improved considerably. The result of this hypothesis is consistent with the findings of Ansari, (2009), Yang (2005), Rahman, et al. (2010) and Dilek, and Ars (2008) that have shown that the knowledge management can be used for the creation, acquisition, sharing, and exploiting the knowledge in order to promote the organizational performance. Besides, this finding is consistent with Ranjit (2004) who had stated that the effective knowledge management facilitates the knowledge communications and changes the needs of the innovations and leads to the innovative behaviors of the people and pushes them toward the entrepreneurial behaviors in the organization.

Thus considering the complexities of the business environments and rapid changes of the technologies and the decrease of the life of the products, the organizations has to promote a culture among their members that reinforces their trust to each other so that they can easily share their information. This culture has to generates the innovation and creativity and leads to the entrepreneurial orientations in the employees and ultimately to the effectiveness and efficiency of the performance of organization.

Considering the fact that there are many factors which affects the entrepreneurial orientation and knowledge management, future researchers can study each of these effective factors and specify the role and importance of each of them. Moreover, future researches can focus on the adjusting role of these factors as well.

REFERENCES

Rahimnia, Fariborz & Alizadeh, Masoud, (2009), "Dimensions of the organizational culture based on Denison's model in the opinions of the academic staff of Ferdowsi University of
Mashhad", Educational and Psychological Researches Journal of Ferdowsi University of Mashhad, No. 35, pp. 147-170 [in Persian].


Jafari, m; Fesharaki, m. n; Akhavan, a. (2007). "establishing an integrated knowledge management system in iran aerospace industries organization", journal of knowledge management, Vol. 11, NO. 1, pp: 127-142.


