

The Mediating Role of Organizational Learning and Knowledge Sharing in the Relationship between Culture and Organizational Innovation

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Abstract

Any organization needs to innovate in order to survive in today's turbulent and changing world. Understanding the changes in the surrounding environment, looking for innovative and innovative responses, cannot be achieved unless it is institutionalized in the sponsoring culture of the organization. And the organization becomes a learning organization using the flow of knowledge. The present study aims to investigate the relationship between organizational culture, knowledge sharing, organizational learning and innovation. The research population consists of all knowledge workers in the Education Organization of Fars province, from which 190 people were selected as samples using the non-random targeted sampling method. The research data was collected by distributing questionnaires among samples. After collecting data, the distribution of the data related to the variables was examined using the Kolmogorov–Smirnov test; then, the Pearson's correlation coefficient and structural equation modeling were used to test the research hypotheses. The results of this study show that there is a significant relationship between variables of organizational culture, knowledge sharing, organizational learning and organizational innovation. Also, the results of examining the components of organizational culture demonstrated that adhocracy and clan cultures have positive effects on other variables while hierarchy and market cultures negatively affect the dependent variables. As well as the role of mediator between organizational culture and organizational learning, knowledge sharing and organizational innovation proven. On the other hand, it was found that knowledge sharing can also play the role of mediator between organizational culture and innovation.

Keywords: Organizational Culture, Innovation, Knowledge Sharing, organizational learning.

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Introduction

During the past thirty years, researchers have paid much attention to innovation (Gatignon et al. 2002). In a turbulent economic environment, innovation is a very important strategic drive for acquiring new opportunities and protecting knowledge assets as well as gaining competitive advantage (Hurmelinna et al., 2008; Laith Ali & Shahizan Hassan, 2013; Dong et al., 2012). The reason innovation is a critical factor in the success of organizations is that innovative firms have more flexibility with the phenomenon of change, and they can respond more quickly to change, create opportunities and gain competitive advantage over other companies (Darroch, 2005; Lorens et al., 2005; Dong, 2010). The importance of innovation has led researchers to identify variables that accelerate innovation (Becheikh et al., 2006).

Today, companies have become competing in knowledge. The company's knowledge-based theory suggests that knowledge is strategically the most important source and the main determinant of sustainable competitive advantage (Grant, 1996; Drucker, 2000). Some researchers believe that knowledge management activities are one of the most important stimulus of innovations (Darroch et al., 2002; Liao & Chang, 2011; Liao et al., 2012, Safa and Solms, 2016). Knowledge-based view in an organization that carries a source-based perspective considers knowledge as a strategic resource (Grant, 1996; Gold et al., 2001;

Laith Ali & Shahizan Hassan, 2013). In this context, knowledge sharing is one of the important processes of knowledge management (Nonaka & Tkeuchi, 1995). When individuals are knowledge creators, create new knowledge and share it, they become innovative. Organizational learning is also one of the most important driving forces of innovation (Sanz et al., 2011; Darroch, 2005). According to Liao, knowledge management and organizational learning activities must work together to achieve the best performance (Liao et al., 2012). On the other hand, organizational culture is considered to be the most important input for knowledge (Dong et al., 2011) and organizational learning is the most important input for innovation (Sanz et al., 2011; Liao et al. 2012). Because culture is a set of beliefs and customs in an organization that can be used for the growth or prevention of learning and innovation, depending on the type of organizational culture (Sanz et al. 2011; Liao et al. 2011; Jimenez et al., 2011; MacDermott et al., Aboudi et al., 2014). Organizational culture is the most important consideration in dealing with environmental changes (Sanjaghi and Akhavan, 2013). Because in order to change the organization's work process as a result of environmental changes, the threats of the environment can be transformed into opportunity using an appropriate and flexible organizational culture (Taheri et al., 2013).

The relationship between organizational learning and innovation is on the rise, and organizational learning can increase the capacity of an organization's innovation. Companies that have a tendency to learn are able to explore and examine the external environment for discovering new paradigms of technology, which leads to innovation (Dolatabadi et al., 2012). With the intensification of international sanctions and economic pressure from Western countries, the need for paying attention to dynamic and active economic has become more important. There are also solutions to counter sanctions, one of which is the potential of sanctions and a resilient economy. Resilient economy is the theoretical and practical foundation for modeling a particular type of economy that has been actively preparing itself to face sanctions. In this case, the country, by relying on its capabilities and innovation, has been developing new ideas based on indigenous knowledge, and by reducing its dependence on imports of goods and attention to domestic production, it will eliminate the negative effects of sanctions and will help economic prosperity. Education is among the organizations that can play a significant role in educating the creative and innovative force of society in such conditions (Mahdizadeh et al., 2013).

In order to create any changes in the organization, the organization must first be culturally transformed. When the

organization has a flexible culture, it easily accepts changes and continues to operate in accordance with the changing environment (Shafizadeh et al., 2013). In this regard, it is important to pay attention to the issues affecting innovation such as organizational culture, organizational learning and knowledge sharing and their effects. Because, with an appropriate organizational culture and attention to knowledge processes, the organization can be led toward being a learning organization that can increase innovation and enhance national production through the creativity of individuals and the creation of appropriate platforms for the growth of this creativity (Taheri et al., 2013). Therefore, the present research aims to explore the variables that lead to innovation in this organization in order to make the education organization innovative, which is the key to promoting science and knowledge in the country. Based on the findings, the present study investigates the role of the mediator of organizational learning and knowledge sharing between different types of organizational culture and organizational innovation in the education organization of Fars province. And seeking to find out whether there is a meaningful relationship between knowledge sharing, organizational learning, organizational innovation and organizational culture?

Literature review

Organizational learning

Garvin argues that the learning organization is an organization that has the ability to create, acquire, and transfer knowledge, and modifies its behavior so that it reflects new knowledge and insights (Lee et al., 2016). Ultimately, in another definition, the learning organization is a thinking that encourages a system approach, communication, and the promotion of individual and technical skills; it facilitates and encourages learning among its members and with the acquisition of the necessary knowledge and information, enables them to rapidly and effectively respond to environmental changes (Ghanbari et al., 2014). An organization whose learning culture has been institutionalized is called learning organization. The learning organization knows how to use knowledge and give its employees time and tools to create and employ knowledge (Ardharn and Vinai, 2018). A learning organization creates knowledge and employs it in doing tasks and experience. It works to correct its behavior in order to adapt to the changes. Thus, the creation and use of new knowledge for continuous growth and learning is possible in the never-ending cycle.

Knowledge sharing

Knowledge sharing, as one of the stages of knowledge management, refers to activities that are related to the flow of knowledge from one sector or person to another, involving

communication, transformation, interpretation, and purification of knowledge. Knowledge sharing, as a complex but value-creation activity, is the foundation of many knowledge management strategies of organizations (Riege, 2005, Kathiravelu et al, 2014). On the one hand, knowledge sharing is the transformation of organizational knowledge into individual or group knowledge during the process of internalization and socialization, and, on the other hand, knowledge sharing can be the translation of individual or group knowledge into organizational knowledge during the process of extrusion and composition. It is worth noting that the sharing of tacit knowledge leads to socialization and the sharing of explicit knowledge leads to composition (Wang, 2012). The purpose of knowledge sharing is creating new knowledge or exploiting existing knowledge (Howell and Annansingh, 2013).

Organizational Culture

Many scholars believe that any organization has a personality and culture in any organization is as a personality in a human being. Organizations can be described as flexible, creative, supportive organizations, or vice versa (Alein et al., 2015). Organizational culture is the main values, assumptions, and interpretations in the approaches that characterize the characteristics of an organization that are categorized in four categories of: adhocracy culture, clan culture, market culture, and hierarchy culture (Quinn & Cameron, 2006).

Organizational Innovation

Innovation is an activity aimed at creating, transferring, changing and responding to new ideas. Different researchers have presented similar definitions of these phenomena, in a way that it can be said that in their view, innovation is not only the conscious invention of new ideas, but also the introduction and application of these ideas (Johnson, 2004, Hussein et al, 2016).

Although creativity is used synonymously with innovation, most researchers believe that the two terms of creativity and innovation should be considered separately (Jahanian and Haddadi, 2015). According to Damanpour (1991), innovation is divided into two radical and incremental categories. The researchers have realized that radical innovation within the organization is very different from the incremental innovation, and radical innovation is essential for the company's long-term success (Damanpour, 1991). In general, according to the texts, the most important types of innovations are: technological innovation versus administrative innovation, incremental innovation versus radical innovation, and product innovation versus process innovation. According to the texts, there is also a clear distinction between technological innovation and administrative innovation, while technological innovation involves new technology of products and services, and administrative innovation focuses on policies, procedures, and

organizational form (Damanpour & Evan, 1984; Dong et al. 2012).

Research background

Huber (1991) believes that the depth and breadth of organizational learning has a positive relationship with four similar structures, namely, knowledge sharing, information distribution, information interpretation, and organizational memory. In a learning organization, learning improves the ability to innovate (Senge, 1990). Weiling and Kwok (2006) discuss the impact of organizational factors on the four components of organizational learning in enterprise system implementation that are knowledge sharing, distribution of information, information interpretation, and organizational memory. Therefore, company's technology vision affects the amount of resources dedicated to organizational learning in implementing organizational innovation, and knowledge sharing affects distributing information among organizations. These capabilities are gradually shaped by organizational learning (Vick et al., 2015). Liao (2010) explores the mediating role of organizational learning between the dimensions of knowledge management and organizational innovation. Also, Liao et al. (2011) conducted a study in Malaysia and confirmed the mediating role of organizational learning between knowledge acquisition and organizational innovation.

The adhocracy cultures help advance the development of new

products or services. Hierarchy culture prevents product innovation (Sanz, 2011), According to Dolatabadi et al. (2015), learning affects innovation both directly and indirectly. and market culture, will be examined in future research. Dong et al. (2010) examined the relationship between organizational culture and knowledge creation in Chinese companies. The results of the research showed that there is a strong relationship between organizational culture and the creation of knowledge. In particular, the collectivist culture has a strong positive relationship with the creation of knowledge. Tseng (2010) also examined the relationship between a variety of organizational culture, knowledge creation and organizational performance in 650 Taiwanese companies. The results of the research showed that the adhocracy culture enhances knowledge creation and increases the organizational performance. The results showed that clan culture and hierarchy culture are less conducive to knowledge creation and organizational performance. Julia et al. (2011) examined the relationship between culture and product innovation in Spanish companies. The results showed that the adhocracy culture has a positive and strong relationship and hierarchy culture has a negative relationship with product innovation. They pointed out that the type of innovation, such as radical and incremental innovation, as well as other types of clan. Liao et al. (2012) found that

organizational culture has an impact on organizational learning and innovation. Through acquisition of knowledge, learning is also a strong intermediary variable between knowledge acquisition and organizational innovation and a weak intermediary variable between organizational culture and organizational innovation. Chaud et al. (2013) examined the relationship between a variety of organizational culture and service quality through organizational learning in Korean companies. The results showed that clan culture and adhocracy culture are effective in organizational learning, while hierarchy culture is not effective. There are also three types of organizational learning that affect service quality. They pointed out that three types of organizational learning are the intermediate between organizational culture and service quality.

Research Methodology

The method of this research is descriptive correlational. The statistical population of this research includes all employees of the Education Organization of Fars province. Since the questionnaire should be distributed among the knowledge carriers and the knowledge carriers were more in the middle and top levels of the organization, non-random sampling method was used and the sample size was estimated to be 190 people. After distributing the questionnaires, 173 correct questionnaires were returned to the researcher. After collecting data,

Kolmogorov-Smirnov test was first used to examine the distribution of data of the research variables. Then, using Pearson correlation coefficient and structural equation modeling, the research hypotheses were tested. To measure organizational culture, Quinn and Cameron (1997) developed a questionnaire, which has sixteen questions in relation to four dimensions of organizational culture. To measure organizational learning, the standard questionnaire of Sinkla et al. (1999) has been used, which evaluates three dimensions of organizational learning in eleven questions. Monkla's standard questionnaire (1994) including thirteen questions is used to measure knowledge sharing. Also, for measuring organizational innovation, the standard questionnaire of Dong et al. (2012) is used, which has twenty-two questions. The questionnaires are based on the Likert scale; each section consists of seven options from strongly agree to strongly

disagrees. At the next stage, the questionnaires were translated because most respondents are not familiar with English. The questionnaire was translated into Farsi according to the suggested backward technique of Garyke and Daklas (2005), and then translated into English to estimate that English and Persian versions of the questionnaires are the same. Of the subjects, 24.7% were men and 75.3% were women. Also, 28.9% were under 35 years of age, 40.5 (35-45), 17.4 (45-55), and 13.2 were more than 55 years old. The level of education for the undergraduate students was 55.8% and the master degree was 44.42%

Data analysis

Given the probability of the variables in the Kolmogorov-Smirnov test, which is greater than .05, the H_0 hypothesis that variables are of normal distribution is accepted, and at 95% confidence level, i.e. with an error level of .05, the research variables have a normal distribution.

Table 1: Kolmogorov-Smirnov test

| Components | Test statistics | Sig. | Test result |
|---------------------------|-----------------|------|-------------|
| Adhocracy culture | 1.128 | .127 | Normal |
| Clan culture | .962 | .313 | Normal |
| Market culture | .951 | .327 | Normal |
| Hierarchy culture | .830 | .497 | Normal |
| Organizational culture | .837 | .485 | Normal |
| Organizational learning | .787 | .565 | Normal |
| Organizational innovation | .489 | .970 | Normal |
| Knowledge sharing | .843 | .475 | Normal |

Test of research hypotheses

Main hypothesis 1: There is a significant relationship between organizational culture (in general) and knowledge sharing.

Sub-hypotheses 1:

1-2 There is a meaningful relationship between the Adhocracy culture and the sharing of knowledge in the organization.

1-2 There is a significant relationship between Clan culture and knowledge sharing in the organization.

1-3 There is a meaningful relationship between market

culture and knowledge sharing in an organization.

1-4 There is a significant relationship between hierarchy culture and knowledge sharing in the organization.

Table 2: Testing first main hypothesis and first sub-hypotheses

| Hypothesis | The relationship between | | r | R ² | Sig. | Test result |
|----------------------------|--------------------------|--|-------|----------------|-------------------------|-----------------|
| | 1 st variable | 2 nd variable | | | | |
| Main hypothesis 1 | Organizational culture | Knowledge sharing | .750 | .56 | .000 | H1 is confirmed |
| Sub-hypothesis 1-1 | Adhocracy | Knowledge sharing | .620 | .336 | .000 | H1 is confirmed |
| Sub-hypothesis 1-2 | Clan culture | Knowledge sharing | .632 | .319 | .000 | H1 is confirmed |
| Sub-hypothesis 1-3 | Market culture | Knowledge sharing | -.389 | .247 | .000 | H1 is confirmed |
| Sub-hypothesis 1-4 | Hierarchy culture | Knowledge sharing | -.231 | .114 | .000 | H1 is confirmed |
| r: correlation coefficient | | R ² :coefficient of determination | | | Sig: significance level | |

As the result of this test shows, the level of significance is .000 and less than .05. Therefore, at a 95% confidence level, there is a significant relationship between organizational culture and knowledge sharing. According to the correlation coefficient of .750, it can be said that the relationship between organizational culture and knowledge sharing is positive and direct. In sub-hypotheses, there is a positive relationship between variables of adhocracy and clan culture with knowledge sharing at 95% confidence level. But there is an inverse relationship between variables of market and hierarchy culture with knowledge sharing.

Main hypothesis 2: There is a significant relationship between organizational culture (in general) and organizational learning.

Sub-hypotheses 2:

2-1 There is a meaningful relationship between the Adhocracy culture and organizational learning.

2-2 There is a significant relationship between Clan culture and organizational learning.

2-3 There is a significant relationship between market culture and organizational learning.

2-4 There is a significant relationship between hierarchy culture and organizational learning

Table 3: Testing second main hypothesis and second sub-hypotheses

| Hypothesis | The relationship between | | r | R ² | Sig. | Test result |
|----------------------------|--------------------------|--|-------|----------------|-------------------------|-----------------|
| | 1 st variable | 2 nd variable | | | | |
| Main hypothesis 2 | Organizational culture | Organizational learning | .720 | .524 | .000 | H1 is confirmed |
| Sub-hypothesis 2-1 | Adhocracy | Organizational learning | .638 | .407 | .000 | H1 is confirmed |
| Sub-hypothesis 2-2 | Clan culture | Organizational learning | .483 | .233 | .000 | H1 is confirmed |
| Sub-hypothesis 2-3 | Market culture | Organizational learning | -.422 | .178 | .000 | H1 is confirmed |
| Sub-hypothesis 2-4 | Hierarchy culture | Organizational learning | -.664 | .441 | .000 | H1 is confirmed |
| r: correlation coefficient | | R ² :coefficient of determination | | | Sig: significance level | |

Main hypothesis 3: There is a significant relationship between organizational culture (in general) and organizational innovation

Sub-assumptions 3:

3-1. There is a significant relationship between the Adhocracy culture and innovation.

3-2 There is a significant relationship between Clan culture and innovation.

3-3 There is a significant relationship between market culture and innovation.

3-4 There is a significant relationship between hierarchy culture and innovation.

According to the findings in table 3, the level of significance is .000 and correlation coefficient is .720

between the two variables; therefore, at a 95% confidence level, there is a significant relationship between organizational culture and organizational learning. As the result of this test shows, the significance level of all sub-hypotheses is also .000. Therefore, there is a significant relationship between all variables. In particular, there is a positive and direct relationship between variables of adhocracy and clan culture with organizational learning. But there is an inverse relationship between variables of market and hierarchy culture with organizational learning.

Table 4: Testing third main hypothesis and third sub-hypotheses

| Hypothesis | The relationship between | | R | R ² | Sig. | Test result |
|----------------------------|--------------------------|--|-------|----------------|------|-----------------|
| | 1 st variable | 2 nd variable | | | | |
| Main hypothesis 3 | Organizational culture | Organizational innovation | .576 | .28 | .000 | H1 is confirmed |
| Sub-hypothesis 3-1 | Adhocracy | Organizational innovation | .405 | .164 | .000 | H1 is confirmed |
| Sub-hypothesis 3-2 | Clan culture | Organizational innovation | .387 | .155 | .000 | H1 is confirmed |
| Sub-hypothesis 3-3 | Market culture | Organizational innovation | -.466 | .217 | .000 | H1 is confirmed |
| Sub-hypothesis 3-4 | Hierarchy culture | Organizational innovation | -.503 | .253 | .000 | H1 is confirmed |
| r: correlation coefficient | | R ² :coefficient of determination | | | Sig: | |
| | | significance level | | | | |

According to the findings in table 4, the level of significance is .000 and correlation coefficient is .576 between the two variables; therefore, at a 95% confidence level, there is a significant relationship between organizational culture and organizational innovation. As the result of this test shows, the significance level of all sub-hypotheses is also less than .05. Therefore, at a significance level of

95%, there is a positive and direct relationship between variables of adhocracy and clan culture with organizational innovation. But there is an inverse and negative relationship between variables of market and hierarchy culture with organizational innovation.

Main hypothesis 4: There is a significant relationship between knowledge sharing with organizational learning.

Table 5: Testing main hypotheses 4

| Hypothesis | The relationship between | | r | R ² | Sig. | Test result |
|----------------------------|--------------------------|--|------|----------------|-------------------------|-----------------|
| | 1 st variable | 2 nd variable | | | | |
| Main hypothesis 4 | Knowledge sharing | Organizational learning | .710 | .53 | .000 | H1 is confirmed |
| r: correlation coefficient | | R ² :coefficient of determination | | | Sig: significance level | |

As can be seen, according to the significance level of .000 and correlation coefficient of .710 there is a significant and positive relationship between knowledge sharing and organizational learning

Main hypothesis 5: There is a significant relationship between knowledge sharing with organizational innovation.

Table 6: Testing main hypotheses 5

| Hypothesis | The relationship between | | r | R ² | Sig. | Test result |
|----------------------------|--------------------------|--|------|----------------|------|-----------------|
| | 1 st variable | 2 nd variable | | | | |
| Main hypothesis 5 | Knowledge sharing | Organizational innovation | .549 | .301 | .000 | H1 is confirmed |
| r: correlation coefficient | | R ² :coefficient of determination | | | Sig: | |
| | | significance level | | | | |

As can be seen, according to the significance level of .000 and correlation coefficient of .549, there is a significant and positive relationship between knowledge

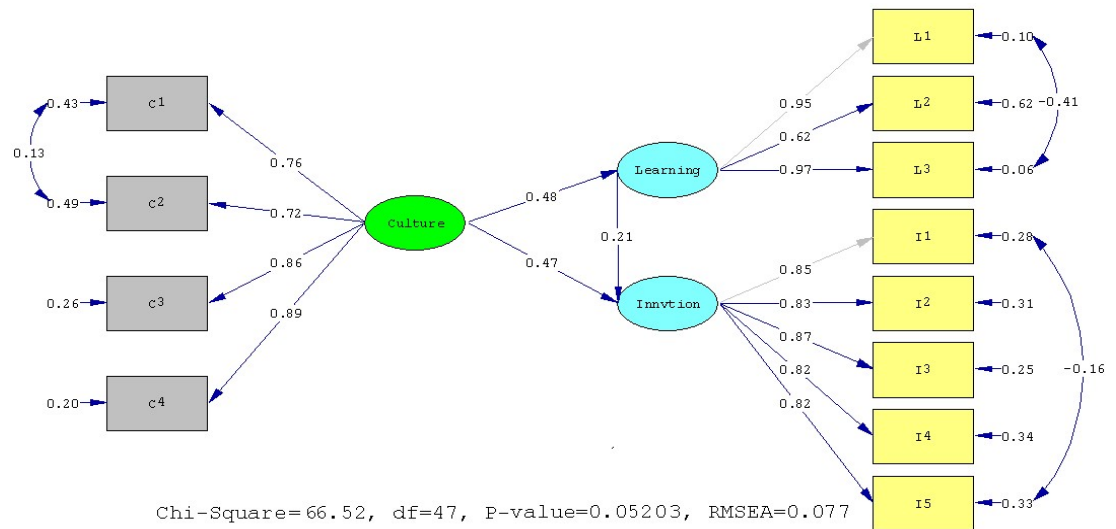
sharing and organizational innovation Main hypothesis 6: There is a significant relationship between organizational learning and organizational innovation.

Table 7: Testing main hypotheses 6

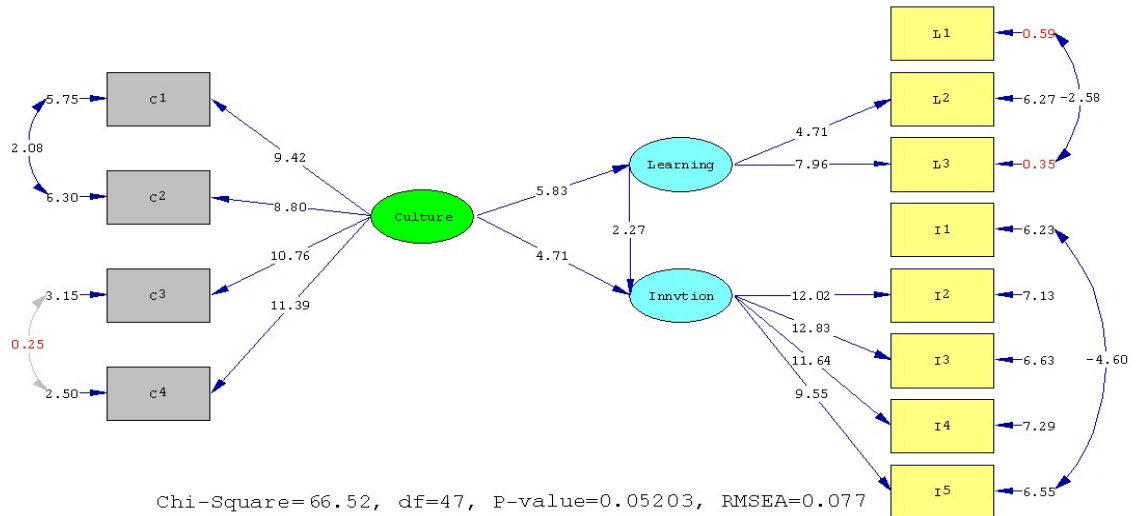
| Hypothesis | The relationship between | | r | R ² | Sig. | Test result |
|----------------------------|--------------------------|--|------|----------------|------|-----------------|
| | 1 st variable | 2 nd variable | | | | |
| Main hypothesis 6 | Organizational learning | Organizational innovation | .619 | .383 | .000 | H1 is confirmed |
| r: correlation coefficient | | R ² :coefficient of determination | | | Sig: | |
| | | significance level | | | | |

As can be seen, according to the significance level of .000 and correlation coefficient of .619, there is a significant and positive relationship between organizational learning and innovation.

Main Hypothesis 7: Organizational learning has a mediating role between organizational culture and organizational innovation



The structural model in the mode of significant coefficient shows that:



In order to investigate the significance of the effect of organizational learning in the relationship between

organizational culture and organizational innovation, Sobel test is used.

Sobel test

$$z = \frac{a \times b}{(b^2 \times s_a^2) + (a^2 \times s_b^2) + (s_a^2 \times s_b^2)} = 23.88$$

assumptions of Formula 4-2:

a: The value of the path coefficient between the independent variable and the intermediary variable = .48

b: The value of the path coefficient between the intermediary variable and dependent variable = .21

Sa: Standard error of the path between the independent variable

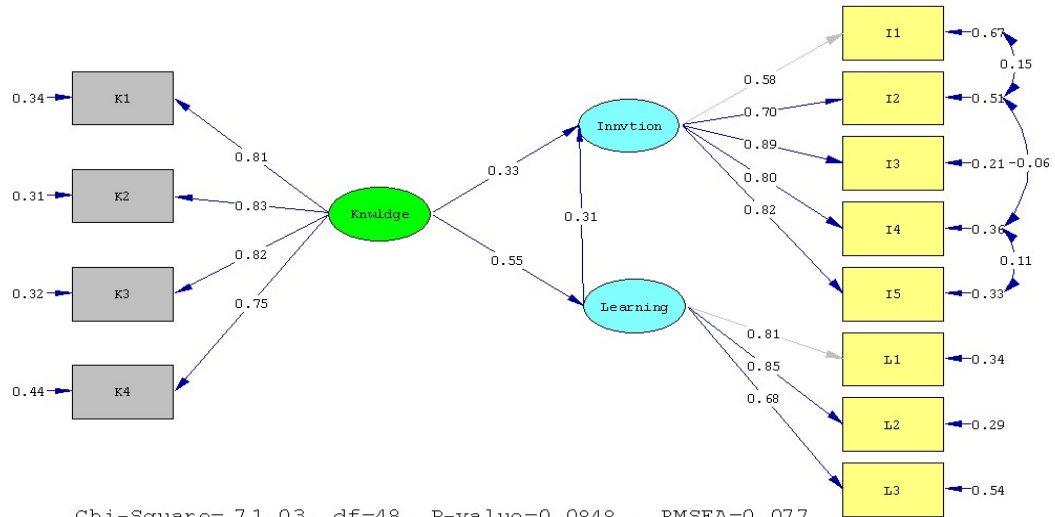
and the intermediary variable = .102

S_b : Standard error of the path between the intermediary variable and dependent variable = .125

Considering that the value of the Sobel test is greater than 1.96, it can be said that the effect of the intermediary variable of organizational learning on the

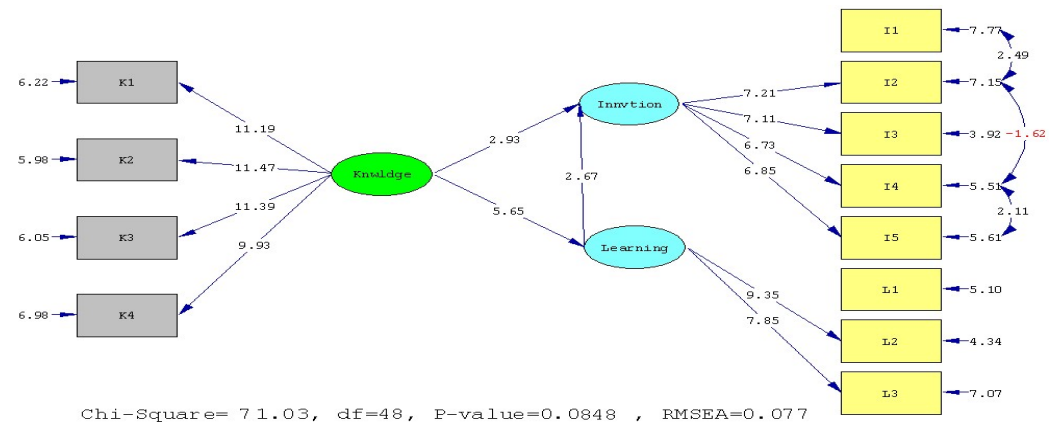
relationship between organizational culture and organizational innovation is significant at the 95% confidence level.

8. Organizational learning has a mediating role between knowledge sharing and organizational innovation.



Chi-Square= 71.03, df=48, P-value=0.0848 , RMSEA=0.077

The structural model 2 shows the significant coefficient mode.



Chi-Square= 71.03, df=48, P-value=0.0848 , RMSEA=0.077

In order to investigate the significance of the effect of knowledge sharing in the relationship between

organizational culture and organizational innovation, Sobel test is also used.

$$z = \frac{a \times b}{(b^2 \times s_a^2) + (a^2 \times s_b^2) + (s_a^2 \times s_b^2)} = 25.88$$

a: The value of the path coefficient between the independent variable and the intermediary variable = .78

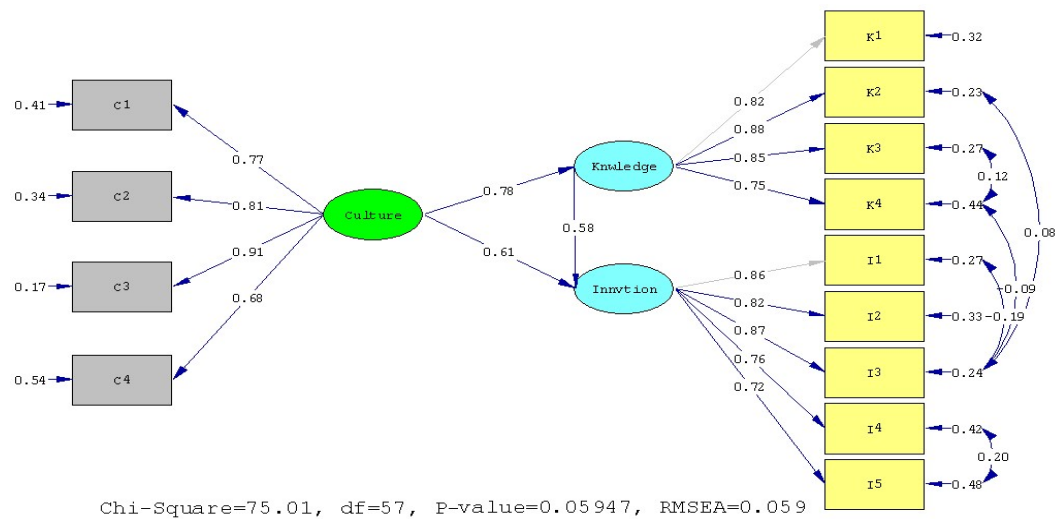
b: The value of the path coefficient between the intermediary variable and dependent variable = .58

Sa: Standard error of the path between the independent variable and the intermediary variable = .152

Sb: Standard error of the path between the intermediary variable and dependent variable = .124

Considering that the value of the Sobel test is greater than 1.96, it can be said that the effect of the intermediary variable of knowledge sharing on the relationship between organizational culture and organizational innovation is significant at the 95% confidence level.

9. Knowledge sharing has a mediating role between organizational culture and organizational innovation.



The structural model 3 shows the significant coefficient mode.

$$z = \frac{a \times b}{(b^2 \times s_a^2) + (a^2 \times s_b^2) + (s_a^2 \times s_b^2)} = 25.88$$

a: The value of the path coefficient between the independent variable and the intermediary variable = .78

b: The value of the path coefficient between the intermediary variable and dependent variable = .58

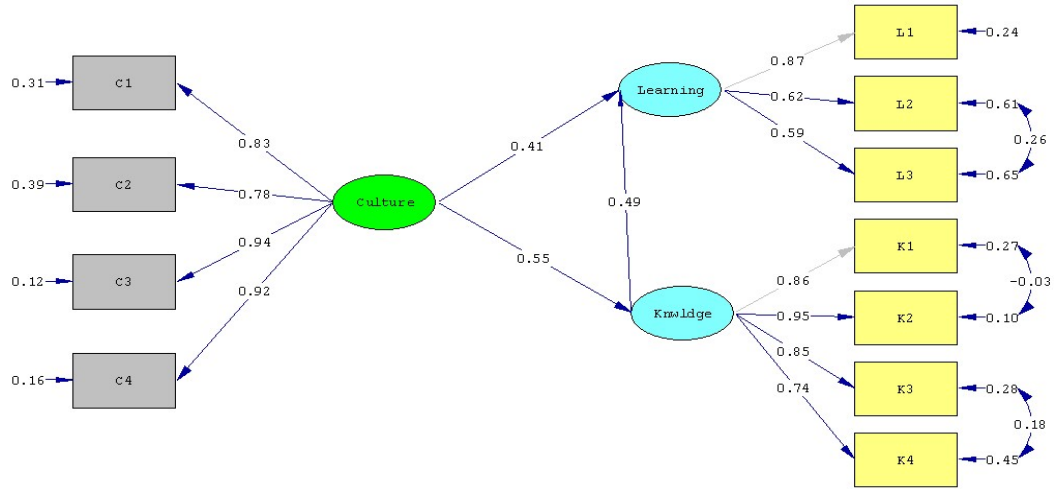
Sa: Standard error of the path between the independent variable and the intermediary variable = .152

Sb: Standard error of the path between the intermediary variable and dependent variable = .124

Considering that the value of the Sobel test is greater than 1.96, it can be said that the effect of the intermediary variable of knowledge sharing on the relationship between organizational culture and

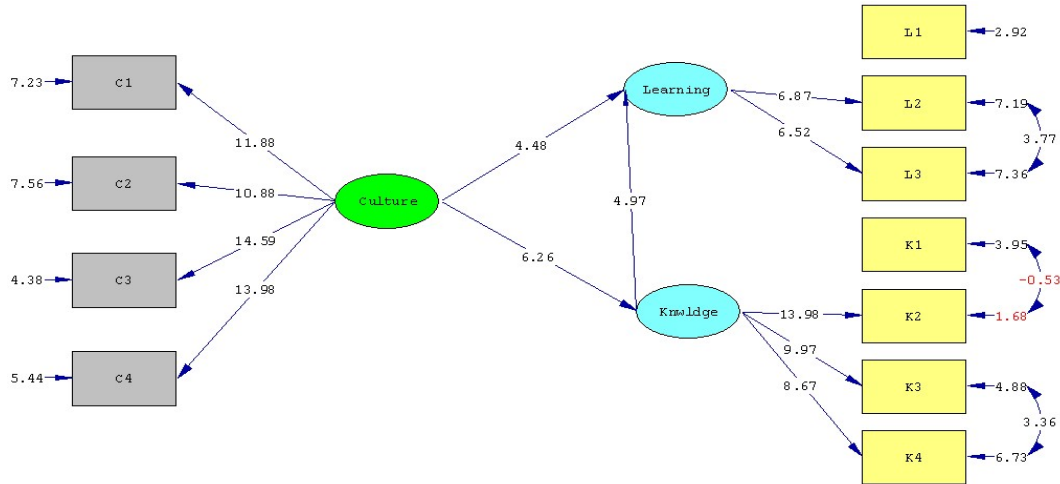
organizational innovation is significant at the 95% confidence level.

10. Knowledge sharing has a mediating role between organizational culture and organizational learning.



Chi-Square=45.40, df=38, P-value=0.19086, RMSEA=0.037

The structural model 4 shows the significant coefficient mode.



Chi-Square=45.40, df=38, P-value=0.19086, RMSEA=0.037

$$Z = \frac{a \times b}{(b^2 \times s_a^2) + (a^2 \times s_b^2) + (s_a^2 \times s_b^2)} = 22.03$$

a: The value of the path coefficient between the independent variable and the intermediary variable = .55

b: The value of the path coefficient between the intermediary variable and dependent variable = .49

S_a: Standard error of the path between the independent variable and the intermediary variable = .13

S_b: Standard error of the path between the intermediary variable and dependent variable = .16

Considering that the value of the Sobel test is greater than 1.96, it can be said that the effect of the intermediary variable of knowledge sharing on the relationship between organizational culture and organizational learning is

significant at the 95% confidence level.

Discussion and conclusion

Findings of the research show that there is a significant relationship between organizational culture and knowledge sharing. Organizational culture, as the personality and foundation of the organization, plays an effective role in establishing the flow of knowledge sharing in the organization. In the education organization of Fars province, when the adhocracy and clan cultures dominate the organization, employees show more willingness to share knowledge. Conversely, when a hierarchy culture and the market culture govern the organization, the amount of knowledge sharing in the organization decreases. The results of this study are consistent with Jacobs & Rood (2011), Chen et al. (2010), and Linder and Wald (2011). Dong et al. (2010) examined the relationship between organizational culture and knowledge sharing in Chinese companies. The results of the research showed that there is a strong relationship between organizational culture and the knowledge sharing. In particular, the collectivist culture has a strong positive relationship with the knowledge sharing

There is also a significant relationship between organizational culture and organizational learning. By analyzing the results, it was found that the adhocracy culture and clan culture have a direct and positive relationship with organizational

learning and market culture and hierarchy culture have inverse and negative relationship with learning. Therefore, it is better for the organization's executives to embark on the institutionalization of the adhocracy culture and clan culture in order to realize the learning and institutionalization of the knowledge flow in their organization. Tasks should be based on group activities and act in such a way that employees consider the success of the organization as their own success, so that the maximum participation of individuals is achieved and the potential capacities of individuals are fully actualized. The results of this study are consistent with Hajipoor and Kashani (2010) and Liao et al.'s (2012) researches. Liao et al. (2012) found that organizational culture has an impact on organizational learning and innovation. Through acquisition of knowledge, learning is also a strong intermediary variable between knowledge acquisition and organizational innovation and a weak intermediary variable between organizational culture and organizational innovation. Chaud et al. (2013) examined the relationship between a variety of organizational culture and service quality through organizational learning in Korean companies. The results showed that clan culture and adhocracy culture are effective in organizational learning, while hierarchy culture is not effective. There are also three types of organizational learning that affect service quality. They pointed out

that three types of organizational learning are the intermediate between organizational culture and service quality.

In the study of the relationship between the organizational culture and innovation variables, the relationship between the two was proved and the results indicated that the adhocracy culture and clan culture have a positive and direct impact on innovation. It means that the employees who are involved in an organization with an adhocracy or clan culture are more innovative and creative. In contrast, when managers use hierarchy culture and market culture, employees can less show creativity. The results are consistent with the research of Lotfollahzadeh et al. (1393), Liao (2012), and Julia (2010). Julia et al. (2011) examined the relationship between culture and product innovation in Spanish companies. The results showed that the adhocracy culture has a positive and strong relationship and hierarchy culture has a negative relationship with product innovation. They pointed out that the type of innovation, such as radical and incremental innovation, as well as other types of clan and market culture, will be examined in future research.

In addition to the fact that organizational culture can directly affect innovation, it can also affect innovation through its impact on knowledge sharing. This research examined the mediatory role of sharing knowledge between organizational culture and innovation and the existence of this relationship was proved. When the

culture of the organization supports the sharing of knowledge, knowledge can easily flow into the organization, and employees can become more creative and innovative by utilizing the experiences and knowledge of others. Also, after identifying the mediating role of organizational learning between organizational culture, knowledge sharing and innovation, it can be concluded that managers can turn their organization into a learning organization through considering organizational culture, where individuals always seek to discover and create new ideas that will make the organization an innovative organization.

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