

# **THE EFFECTS OF ORGANIZATIONAL CULTURE ON THE RELATIONSHIP OF ORGANIZATIONAL LEARNING AND INNOVATION: A RESEARCH IN A PRIVATE HEALTH INSTITUTION**

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## **ABSTRACT**

This study aims to explain the impact of organizational culture on organizational learning and the concept of innovation. These concepts were examined comparatively and a large literature research based on comparative studies was conducted. A triangular relationship was established to determine the effects of organizational culture on the relationship of organizational learning and innovation. A survey comprising “Ogbonna and Harris (2000) organization culture, Calantone et al. (2002) organizational learning, and Wang and Ahmed (2004) innovativeness” scales was applied. The application was carried out in a private hospital in Bakirkoy district. In the survey conducted at the hospital, it was found that the concepts of organizational culture, organizational learning, and innovation are highly correlated, moreover, it was found that organizational culture has a great impact on innovation as well as organizational learning.

In short, it shows that organizational culture is essential for accomplishing organizational learning and innovation

**Anahtar Kelimeler:** Organizational Culture, Organizational Learning, Innovation, Health Institutions

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## 1. Introduction

Organizations do not only force individuals to be physically in the same space, but also create a common cultural space for individuals with very different social embeddedness. In fact, in organizations where interaction of individuals is intense, this cultural space determines the contribution of inter-individual relations to the individuals and the organization as a whole. Organizational culture, which is defined by the system of norms, behaviors, values, beliefs, and habits that direct the behavior of the people within the organization through various ceremonies, rituals, traditions, stories, myths, symbols, language, and heroes (Güçlü, 2003; Dinçer, 1992:271), can be an important factor in the success of both the individuals and the organization as a whole. It is an ideal organizational culture that will unite employees around a common vision for the production and use of knowledge and, in particular, technical know-how. The knowledge and technical know-how in question express both the individual achievements of the employees and the achievements of the organization as a whole. And what is necessary for this purpose is that organizational learning processes acquire a normative quality in an organizational culture. Organizational learning, which expresses the change in organizational knowledge (organizational rules, roles, technologies), and adding to or removing from the knowledge in question (Koç, 2009), can be institutionalized by being placed within the organizational culture. Similarly, it is important to place innovation, which is defined as going beyond a conventional practice or the degree of difference of a material production compared to the previous production method (Yahyagil, 2001), within the organizational culture so that it is adopted by employees and the organization as a whole.

## 2. Literature Review

The topics of organizational learning, organizational innovation, and organizational culture have been studied extensively in national and international business literature. There are many studies that deal with these three factors in relation to each other as well as other factors. Schein states that understanding the culture three professions (managers, engineers, and operators) have is effective on organizational learning (Schein, 1996:19). In his study in 2002, Ando showed that organizational culture has an impact (although not on its own) on organizational learning (Ando, 2002). In addition, Joseph and Dai, supporting Ando's findings, showed that organizational culture influences organizational learning in an empirical study in which they analysed the relationship between organizational culture, organizational learning, employee participation, and employee productivity (Joseph & Dai, 2009:248). Ghorbani and Sabbagh also found a direct and meaningful relationship between the two variables in a study they conducted at a university (Ghorbani & Sabbagh, 2010). In 2012, Wanto and Suryasaputra investigated the effect of the two variables on competition strategy and performance, and showed that

both variables have an effect on competition strategy but have no direct effect on performance (Wanto & Suryasaputra, 2012). Azadi et al. also reached meaningful results in their study, which examined the relationship between organizational learning and organizational culture with their sub-dimensions among the employees in educational institutions (Azadi et al., 2013). Hsu also found a meaningful relationship in her study, in which she examined the effect of organizational culture, organizational learning, and information technology strategies on the information management and performance (Hsu, 2014). In their empirical study examining the relationship between the two variables, Lee and Chen showed that the two variables do not only have a mutual relationship, but also a mutual interaction, the results of previous studies by moving a bit forward, carrying the results of their previous studies one step forward (Lee & Chen, 2015).

In their study, Acar and Acar showed that organizational culture and organizational innovation have a positive impact on the performance of organizations (Acar & Acar, 2012). As a result of their studies on the effect of organizational culture on innovation capability, Yeşil ve Kaya state that some characteristics of organizational culture (e.g. ad-hocracy) constitute an appropriate infrastructure for innovation (Yeşil & Kaya, 2012). In their study, Büschgens et al. showed that managers should build organizational culture in accordance with their innovation strategies (Büschgens et al., 2013). Zhu showed that some elements within the organizational culture have an impact on how technology-driven innovation is perceived and met by employees (Zhu, 2015). Hurley and Hult, on the other hand, found that there is a relationship between innovation and learning as a result of the empirical study they conducted by integrating innovation, organizational learning, and being market-oriented (Hurley & Hult, 1998). As a result of his research on small-scale technology firms, Therin similarly reached the conclusion that organizational learning process affected the innovation performance of the firms (Therin, 2002). Yeung and colleagues, carrying this conclusion further, showed that this effect may change depending on the conditions of the company (Yeung et al., 2007). Garrido and Camarero also identified this effect of organizational learning on innovation in organizations providing cultural services such as museums (Garrido & Camarero, 2010). In their study conducted on SME's in Malaysia, Salim and Sulaiman reached the conclusion that organizational learning positively affects the company's innovation ability and enhances firm performance in innovation (Salim & Sulaiman, 2011). Özdevecioğlu and Biçkes empirically showed that organizational learning has an impact on product, process strategy, and market innovation (Özdevecioğlu & Biçkes, 2012). Recent studies also support this relationship (Uğurlu & Kurt, 2016; Kızıloğlu, 2015; Maktabi & Khazaei, 2014). The main purpose of this research is determine the relationship between organizational culture, organizational learning, and organizational innovation in order to achieve success and effectiveness in health sector and to explain this relationship based on statistical evaluations. Thus, it is intended that the study will provide

a different perspective to the subject, which is widely discussed in the international literature, by moving the subject to a triangular platform.

### 3. Organizational Culture

The concept of culture, expressing the whole heritage coming from the history of societies (Güçlü, 2003), carry the meanings of "all material and non-material entities taking part in the historical process of social development, all the entities used in forming and transferring them to the next generations, and all the entities that take the sovereignty of the individual within the society as a basis," "the entire works of art and thought of a particular society or nation," "the form of reasoning, taste, and criticism developed through learning and experience," "the knowledge that the individuals acquire," and "agriculture" (Turkish Language Association, 2017). Culture consists of the following elements; Attitudes: A systematically shaped psychological tendency, attributed to human beings, towards an object, an emotion, or an idea (Demir, 2005). Norms: A collection of non-written standards and rules that occur according to values and beliefs and express the way individuals should behave (Şişman, 2007). Values: A criterion in people's behavior and attitudes (Türk, 2007). Symbols: Actions, behaviors, signs, colors, objects, etc. that have a certain meaning for people (Doğan, 2007). Myths: Fairy tales that have symbolic meanings, a sacred value, and are worthy of respect (Doğan, 2007). Ceremonies: Applications of values in organizations, groups, and societies regarding ideal effects and values (Doğan, 2007). Heroes: Dead or living, real or fictional persons with intensively replicated qualities in tradition and culture (Türk, 2007). Ideologies: Stereotypical perspectives formed through cognitive accumulation and exhibited in the face of phenomena and events. Language: Enables people to learn, interpret, and symbolize culture. This concept was first introduced into management science in 1979 by Andrew M. Pettigrew with his essay "On Studying Organizational Cultures," published in the *Administrative Science Quarterly* (Pettigrew, 1979). Organizational culture can be expressed as "rules, attitudes, wishes, beliefs, thoughts, and sciences that govern a society or community and that are transmitted by its individuals" (Baytok, 2006). After Pettigrew, the subject has gained a serious position in the organizational behavior literature and reached the diversification in terms of definition as indicated in Table 1 below.

Organizational culture is studied in four dimensions: innovative, competitive, socialist, and bureaucratic. Innovative culture is a type of culture that consists of values that give importance to innovation, development, taking risks, being open to new ideas, adapting to new competition conditions and growing. Competitive culture is a type of culture that gives importance to productivity and hard work in order to achieve competitive advantage and to carrying out duties conscientiously in order to achieve goals. Socialist culture is a type of culture where the organization is considered as a large family, human resources is important, social dialogue is strengthened, behaviours are exhibited according to traditions, and being loyally committed to the organization is accepted as an important value (Bakan,

2008). In a bureaucratic culture, on the other hand, rational and legal structures outweigh others, detailed work or job descriptions are made, and rules and standards must be complied with (Sezgin, 2010).

**Table 1. Organizational Culture Definitions**

Value activities of an organization whose values are addressed by the members	J. C. Spender
Shared, extensive and powerful basic value system	C. O. Reilly
Judgments made in the manner of "This is how things are done here"	T. Deal Kennedy
Scheduled information to be considered as a whole	G. Hofstede
Beliefs that occur in business life and handled with continuous and objective judgments	J. M. Kouzes
Ceremonies and myths given to employees	W. G. Ouchi
Shared values such as stories, myths, heroes, and slogans expressing symbolic values	T. Peters & R. H. Waterman
Basic principles that the organization develops by making internal and external problems compatible	E. H. Schein
Situations in which the organization learns how to deal with problems and develops during the integration and adaptation period	F. Luthans
To establish the basis of philosophies, ideologies, values, assumptions, beliefs, expectations, approaches, and norms that will keep the organization together, provide a harmonious state, and aim to get good results	Szilagyi & Wallace
All the beliefs that show how the administrators see the space they are in and how they handle innovations	Sabuncuoğlu & Tüz

**Source:** R. W. Griffin and G. Moorhead, (1989), *Organizational Behavior*, Houghton Mifflin Co. USA, Aktaran: H. Eşki, (2009). *Strategic Management and Organizational Culture: A Relational Analysis*. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi* S. 24, ss. 165-172.

#### 4. Organizational Learning

Organizational learning refers to the change (additions, transformations, or removals) in organizational knowledge (e.g. organizational rules, roles, traditions, strategies, structures, technologies, cultural practices, talents, etc.). Organizational learning theories attempt to explain the processes that lead to or prevent changes in organizational knowledge and the effects of learning and knowledge on behaviors and organizational outcomes (Koç, 2009). Huber (1991) discusses four stages in his literature review of how the learning process takes place. These are:

- Acquiring Information,
- Distributing Information (Sharing),

- Interpretation of Information,
- Storage of Information (Organizational Memory) (Huber, 1991; 91).

Crossan et al. have proposed sub-processes of learning in relation to different levels of learning at the individual, group, and organizational level. The authors describe these sub-processes as Intuiting, Interpreting, Integration, and Institutionalization (Crossan et al., 1999; 525).

Organizational learning refers to a process. Its main difference from the concept of learning organizations, with which it is often confused, is that while learning organization refers to an organizational form, organizational learning refers to a process and series of activities (efforts) (Örtenblad, 2001). There are four basic elements defined in the literature in measuring the tendency towards organizational learning. These elements are as follows.

Commitment to learning, which refers to an organization's enhancing an environment of learning within the organization and giving value and support to learning; shared vision, which coordinates inter-departmental focus diversity and eliminates communication barriers; open-mindedness, which refers to openness to new ideas and enables people to approach organizational routines critically; and, lastly, intra-organizational knowledge sharing, which refers to the creation of a cumulative collection of information obtained from different sources through sharing the information within the organization system, either as it is or by reprocessing, between departments (Calantone et al., 2002).

**Table 2.** *Learning Level and Methods*

Learning Level	Process	Input and Output
At Individual Level	Intuiting	Experiences, Images, Metaphors
	Interpreting	Language, Cognitive Map, Conversation/Dialogue
At Group Level	Integration	Common Understanding, Mutual Compatibility, Interaction Systems
At Organizational Level	Institutionalization	Routines, Control Systems, Rules, and Procedures

**Source:** Mary M. Crossan, Henry W. Lane & Roderick E. White, (1999), *An Organizational Learning Framework: From Intuition to Institution*, *The Academy of Management Review*, Vol. 24, No. 3, pp. 522-537.

## **5. Organizational Innovation**

When the definitions of the concept of innovation are reviewed, it is seen that there is diversity. Innovation is defined as introducing a new product or discovering a new market by Schumpeter, one of the two basic functions of an organization by Drucker, the implementation phase of changes in the organization by Mohr, new products and services, supply of existing products to new markets, or new ideas such as new marketing techniques by Simmonds, organizations' developing and adopting new ideas by Damanpour, approaching objects and processes from a new perspective and seeing new relations by Evans, developing new product-market-technology-organization combinations by Boer and During (Popa et al., 2010; Boer & During, 2001; Rogers, 1998; Evans, 1991; Damanpour, 1991; Simmonds, 1986; Mohr, 1969; Drucker, 1954; Schumpeter, 1930). Organizational innovation, on the other hand, can generally be defined as the production of new mechanisms, systems, policies, programs, processes, products, or services within the organization or by outsourcing (Mendoza, 2015; Damanpour & Gopalakrishnan, 2001). Organizational innovation is addressed in five dimensions in the literature. These are (Günday et al., 2011; Wang & Ahmed, 2004): product-based innovation based on the use of new information and technologies or the combined use of existing information and technologies, emerging due to developing technology, changing customer needs, short product life, or global competition pressure, including new and important developments in the parts or use of products; process innovation, which involves significant changes in techniques, methods, and equipment used, new and developmental practices in production and distribution methods aimed at reducing production and distribution costs and increasing quality; marketing innovation, which refers to meeting customer needs better through activities such as positioning, promoting, and designing products in marketing mix, opening to new markets or implementation of new marketing methods aimed at repositioning the existing product in the market to increase sales, involving significant changes in the marketing mix policies; behavioural innovation that refers to continuous behavioural change of the organization towards innovation, which ensures the formation of an innovation culture at the individual, group, and administrative levels and comprehension of new ideas; strategic innovation, which emerges by recognizing and obtaining the favourable position in the market and refers to development of new competitive strategies that will add value to the organization.

## **6. Research**

### **6.1. Methodology**

The study is aimed at determining the relationship between organizational culture, learning, and innovation. The relationship of these three elements with each other, the effects of which on the performance of companies have been shown by the studies carried out to date (Wahjudi et al., 2013; Günday, 2011; Calantone et al., 2002), has been examined many times with binary analysis. However,

there are not many studies that deal with these three elements together and reveal the impact of organizational culture on learning and innovation.

**The hypotheses to be examined in the study are as follows.**

H1: Organizational culture affects organizational learning positively and significantly.

H2: Organizational culture affects organizational innovation positively and significantly.

H3: Organizational learning affects organizational innovation positively and significantly.

**Figure 1. Research Model**

The research was conducted at a university hospital. As in every organization, each hospital has a different culture. Organizational values are an important element supporting organizational culture in health institutions. Hospitals can create a strong organizational culture by moving the rules, values, and belief system shared by the people within the organization to a more advanced level (Gemlik et al. 2015, p.5).

The data used in the study were obtained by survey. The questionnaires were distributed to employees within the hospital as a form and 600 responses were collected. The data were processed in SPSS 22.0 and validity and reliability tests were performed.

**6.2. Survey form and descriptive statistics**

The questionnaire consists of 4 scales: demographic, organizational culture, organizational learning, and organizational innovation scale. The demographic scale consists of seven questions.

<b>Employee Age Range</b>	<b>Distribution</b>	<b>Percentage</b>
18 - 30	174	29.0
21-40	219	36.5
41-50	169	28.2
51 and above	38	6.3
Total	600	100.0
<b>Gender</b>	<b>Distribution</b>	<b>Percentage</b>
Male	167	27.8
Female	433	72.2
Total	600	100.0
<b>Educational Status</b>	<b>Distribution</b>	<b>Percentage</b>
Elementary School	9	1.5
High School	51	8.5
Associate Degree	117	19.5
Undergraduate Degree	207	34.5

Master's Degree	141	23.5
Ph.D.	75	12.5
Total	600	100.0
<b>Marital Status</b>	<b>Distribution</b>	<b>Percentage</b>
Married	272	62
Single	228	38
<b>Amount of Time Worked in the Sector</b>	<b>Distribution</b>	<b>Percentage</b>
0-1 year	25	4.2
2-5 years	100	16.7
6-10 years	130	21.7
11-15 years	76	12.7
16-20 years	117	19.5
21 years and above	152	25.3
Total	600	100.0
<b>Amount of Time Worked in the Institution</b>	<b>Distribution</b>	<b>Percentage</b>
0-1 year	34	5.7
2-5 years	139	23.2
6-10 years	120	20.0
11-15 years	76	12.7
16-20 years	101	16.8
21 years and above	130	21.7
Total	600	100.0
<b>Title</b>	<b>Distribution</b>	<b>Percentage</b>
Physician/Academician	132	22.0
Nurse	271	45.2
Health Technician	73	12.2
Laboratory Technician/Chemist	53	8.8
Other Health Staff	71	11.8
Total	600	100.0

Scales	Sub-Dimensions	Number	Number of Items	Mean	St. Dev.	Min.	Max.
Organizational Culture Scale	Innovative Culture	600	4	2.84	0.94	1.00	5.00
	Competitive Culture	600	4	3.12	0.82	1.00	5.00
	Bureaucratic Culture	600	4	3.11	0.93	1.00	5.00
	Socialist Culture	600	4	2.94	0.98	1.00	5.00
Organizational Innovation Scale	Behavioral Innovation	600	4	3.08	0.86	1.00	5.00
	Product Innovation	600	4	2.98	0.81	1.00	5.00
	Process Innovation	600	4	3.06	0.89	1.00	5.00
	Market Innovation	600	4	2.88	0.84	1.00	5.00
	Strategic Innovation	600	4	3.04	0.72	1.00	5.00
Organizational Learning Scale	Commitment to Learning	600	4	3.14	0.92	1.00	5.00
	Shared Vision	600	4	2.97	0.95	1.00	5.00
	Open-Mindedness	600	4	3.05	0.85	1.00	5.00
	Intra-Organizational	600	5	3.02	0.93	1.00	5.00
	Knowledge Sharing						

Sub-Dimensions	Number of Items
Competitive Culture	4
Product Innovation	1
Process Innovation	4
Market Innovation	1
Strategic Innovation	4

**Table 5.** Validity and Reliability Analysis of Organizational Culture Scale

Factors	Items	Factor Loading	EFA	Cronbach's Alpha
Bureaucratic Culture	The factor that keeps our hospital together is that it has a proper corporate structure that operates within the framework of the official rules and policies set forth..	0.820	25.603	0.87
	The procedures and regulations that determine what employees will do and how they will do it within the organizational structure of our hospital constitute a very formal and bureaucratic structure.	0.811		

	The best managers in our hospital are considered to be the coordinators, organizers, and administrators.	0.697		
	Thanks to the structure of our hospital which is based on continuity and stability, it is ensured that operations are carried out correctly, efficiently, and properly.	0.613		
Innovative Culture	Thanks to the dynamic and entrepreneurial structure of our hospital, our employees are willing to take risks when necessary.	0.782	25.002	0.88
	Our hospital gives importance to being prepared for any difficulties encountered during growth and acquisition of new resources.	0.776		
	The element that holds our hospital together is its commitment to innovation and development, which creates awareness and desire for being the first in the sector.	0.732		
	The managers in our hospital are entrepreneurial, innovative, and risk-taking.	0.714		
Socialist Culture	The best managers in our hospital are considered to be the counselors, parents, and mentors.	0.802	22.998	0.86
	The structure of our hospital that gives importance to human resources supports the morale, motivation, and harmony of the employees.	0.795		
	Our hospital manages to make its employees feel like they are part of a large family, and cares about individual needs and needs of employees.	0.758		
	The element that holds our hospital together is the commitment, loyalty, and traditions of our institution.	0.505		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity			939	
Approx. Chi-Square			4800.681	
df			66	
Sig.			.000	

**Table 7.** *Validity and Reliability Analysis of Organizational Innovation Scale*

Factors	Items	Factor Loading	EFA	Cronbach's Alpha
Behavioral Innovation	In our hospital, we show tolerance to those who do their job using different ways/methods.	0.806	8.474	0.86
	We encourage employees in our institution to be original.	0.793		
	We aspire to search for different/unique solutions for our business and try to do it in new ways/methods.	0.779		
	When we want to try new ways/methods in our business, we get intensive support from our managers.	0.752		
Market Innovation	Our hospital uses the most advanced technology in offering new services to the health sector.	0.826	4.720	0.84
	The new services offered by our hospital generally give our hospital an upper hand against our new competitors.	0.778		
	When compared to our competitors, the current marketing methods we use for our services are revolutionary in the health sector.	0.720		
Product Innovation	Our hospital is generally a pioneer in providing new services to the health sector.	0.800	2.993	0.88
	The new services that we offer are generally considered original by our patients.	0.789		
	Compared to our competitors, our hospital has provided more innovative services in the last 5 years.	0.720		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity Approx.				.905
Chi-Square				3806.526
df				45
Sig.				.000

Factors	Items	Factor Loading	EFA	Cronbach's Alpha
Intra-Organizational Knowledge Sharing	We make sufficient efforts to share experiences and lessons learned from what happened in the past.	774	2.928	0.91
	In order to keep the lessons learned in the past alive in the memory, systematic speeches are given by our managers.	753		
	We have certain mechanisms to share lessons learned through systemic activities carried out from the department to the department (unit to unit, team to team).	752		
	Senior management in our hospital always emphasizes the importance of sharing information.	729		
	We always analyze our organizational efforts that we failed to share, and we discuss the lessons learned extensively.	701		
Commitment to Learning	The basic values of the organization give importance to learning in terms of development.	809	8.140	0.89
	Our managers agree that the learning ability of our organization brings a competitive advantage.	736		
	The general belief in our institution is that the learning of the employees is not an expense but an investment.	702		
	In our organization, learning is seen as a necessary and vital commodity to guarantee our presence in the system.	689		
Shared Vision	In determining the direction of our corporate system, employees see themselves as partners.	724	6.500	0.89
	There is a complete consensus in our views of all stages, functions, and departments of our corporate system.	697		
	There is a unity of purpose among all units and levels in our institution.	669		
	All employees in our institution are responsible for the objectives of the system.	644		
	We do not hesitate to reveal our critical assumptions about			

Open-Mindedness	our patients.	790	6.161	0.83
	We rarely collectively question our assumptions that affect our way of interpreting information about patients.	717		
	Employees in our institution are always questioned about the ways we perceive our place in the industry.	701		
	We judge the quality of the decisions taken and the activities performed at certain time intervals.	578		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy. Bartlett's Test of Sphericity Approx.				.955
Chi-Square				7513.956
df				136
Sig.				.000

### 6.3. Hypothesis tests

As shown in Table 9, the scales showed a significant relationship ( $p < 0.01$ ). Organizational culture positively correlates with organizational innovation at 0.787, and with organizational learning at 0.786. Organizational learning also positively correlates with organizational innovation at 0.789. As shown in Table 5, the arithmetic mean values for correlation analysis between biology attitude scale scores and criterion ranged between 2.9422 and 3.0428 and the standard deviation values ranged between 0.810 and 0.856 ( $r(12) = 0.787, p < 0.01, r(13) = 0.786, p < 0.01, r(23) = 0.789, p < 0.01$ ).

**Table 9.** Pearson Correlation Analysis

	1	2	3	Mean	St. Dev.
<b>Organizational Culture</b>	1			2.965	0.856
<b>Organizational Innovation</b>	.787**	1		2.942	0.820
<b>Organizational Learning</b>	.786**	.789**	1	3.0428	0.810

N:600

r: Pearson correlation n: Factor No \*\* $p < 0.01$

**Table 10. Linear Regression Analysis**

Models	Dependent Variable	Independent Variable	Model Summary		Coefficients					
			R	2			H			
Model I	Organizational Innovation	Organizational Culture	.786	.619	Constant	.708	.075		.484	.000
					OC	.753	.024	.786	1.151	.000
Model II	Organizational Learning	Organizational Culture	.786	.618	Constant	.838	.74		1.367	.000
					OC	.743	.24	.786	1.108	.000
Model III	Organizational Innovation	Organizational Learning	.789	.623	Constant	.509	.080		.356	.000
					OL	.800	.25	.789	1.451	.000

For Model I  $F = 970.394$  ( $p < 0.01$ ); For Model II,  $F = 967.735$  ( $p < 0.01$ ); For Model III,  $F = 989.172$  ( $p < 0.01$ ).

## 7. Conclusion

It is organizational culture that will enable learning within the organization and make learning processes and procedures a part of the organization. The adoption of learning processes by employees can be achieved by making them a cultural norm. Also, the findings regarding the effect of organizational culture on innovation support the literature (Zhu, 2015; Büschgens et al., 2013).

This result points out the necessity of an institutional atmosphere in order to gain an innovative perspective to the employees and to materialize innovation in different ways. Organizational culture seems to be an important platform for the emergence of both innovation and learning. The effect of organizational learning on innovation is also parallel with the literature (Özdevecioğlu & Biçkes, 2012; Salim & Sulaiman, 2011; Garrido & Camarero, 2010; Therin, 2002). This result emphasizes the necessity of a dynamic and constantly self-updating organizational memory for innovation. The results provide predictions in the same direction as the literature. In this study, these concepts are examined in a triangle relationship. However, the results were limited due to the fact that the analyzes used did not

allow to reach the sub-dimensions of culture, learning, and innovation. Using methodologically different analyzes will clarify the role of these sub-dimensions in this interaction.

### **Hypotheses Results:**

H1: Organizational culture affects organizational learning positively and significantly. Accepted

H2: Organizational culture affects organizational innovation positively and significantly. Accepted

H3: Organizational learning affects organizational innovation positively and significantly. Accepted

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