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EXAMINATION OF THE EFFECTS OF IS STRATEGIST ROLE LEADERSHIP AND BUSINESS STRATEGY'S ROLE ON LEARNING ORIENTATION AND ORGANIZATIONAL GROUP CULTURE IN INFORMATION TECHNOLOGY COMPANIES

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Abstract

Business strategies can affect the organization as a whole in a positive way by ensuring that the role creates a good balance in the internal and external environment of the organizations. For this reason, information technology (IT) department managers (CIO), who are actively involved in the role of business strategies, have important contributions to both the business value of the information system and the effectiveness of individuals in the organization in the institutional sense. On the other hand, information systems (IS) strategic leadership is also very important in terms of organizational group culture. IS strategic leadership has an active role in achieving successful corporate results by fully fulfilling the vision of the organization. For this, the effective role of IS strategic leadership in the business activities of the CIO is of remarkable importance for the success of the organization against its competitors. Learning orientation is known as an organizational value that enables the formation of information processing behaviors by producing information. Learning orientation is important in increasing the internal and external change rate of the organization and ensuring that the organizational group culture is effective and positively affected. In this context, the research was conducted by collecting questionnaires from employees of information technology companies registered and traded in Borsa Istanbul. The analysis of the data collected from 417 employees was made using the SmartPLS 4 package program. Structural equation modeling (SEM) was preferred as the analysis method. Considering the results of the analysis, it is supported by the hypotheses that the information system strategic role leadership and business strategy role have a positive effect on learning orientation and organizational group culture, while learning orientation has both an independent and mediator variable effect. It is not possible to evaluate the results for all sectors, as the data in the research were collected from information technology companies. For this reason, it is recommended to contribute to the literature by making comparative analyzes with different sectors by considering the sample size in future studies.

Keywords: Information System, Strategist Role Leadership, Learning Orientation, Business Strategies Role, Organizational Group Culture

BİLGİ TEKNOLOJİLERİ ŞİRKETLERİNDE BİLGİ SİSTEMİ STRATEJİK ROL LİDERLİĞİ VE İŞ STRATEJİLERİ ROLÜ'NÜN ÖĞRENME YÖNELİMİ VE ORGANİZASYONEL GRUP KÜLTÜRÜ ÜZERİNDEKİ ETKİLERİNİN İNCELENMESİ

Özet

İş stratejileri role örgütlerin iç ve dış çevresinde iyi bir denge oluşturmasını sağlayarak örgütü bir bütün olarak olumlu yönde etkileyebilmektedir. Bu nedenle iş stratejileri rolün de etkin olarak görev alan bilgi teknolojileri (IT) departmanı müdürleri (CIO) hem bilgi sisteminin iş değerini hem de kurumsal anlamda bireylerin örgüt içinde etkin olmasında önemli katkıları vardır. Diğer taraftan bilgi sistemleri (IS) stratejik liderliği örgütsel grup kültürü açısından da oldukça önemlidir. IS stratejik liderliği örgütün vizyonunu tam olarak yerine getirerek kurumsal anlamda başarılı sonuçlar elde edilmesinde etkin bir role sahiptir. Bunun için CIO'nun iş faaliyetlerinde IS stratejik liderliğin etkin role sahip olması örgütün rakipler karşısında başarılı olmasında dikkate değer öneme sahiptir. Öğrenme odaklılık ise bilgi üreterek bilgi işleme davranışlarının oluşmasını sağlayan örgütsel bir değer olarak bilinmektedir. Öğrenme odaklılık örgütün iç ve dış değişim oranını arttırarak örgütsel grup kültürünün etkin olmasını ve olumlu yönde etkilenmesini sağlamada önemlidir. Bu kapsamda araştırma Borsa İstanbul da kayıtlı ve işlem gören bilgi teknolojileri şirketlerindeki çalışanlardan anketler toplanarak yapılmıştır. 417 çalışandan toplanan verilerin analizi SmartPLS 4 paket programı kullanılarak yapılmıştır. Analiz yöntemi olarak yapısal eşitlik modellemesi (SEM) tercih edilmiştir. Analiz sonuçlarına bakıldığında bilgi sistemi stratejik rol liderliği ve iş stratejileri rolü'nün öğrenme yönelimi ve organizasyonel grup kültürü üzerinde olumlu yönde etkisi olduğu aynı zamanda öğrenme yöneliminin hem bağımsız hem de aracı değişken etkisinin olduğu hipotezlerle desteklenmektedir. Araştırma da veriler bilgi teknolojileri şirketlerinden toplandığı için sonuçların tüm sektörler için değerlendirilmesi mümkün değildir. Bu nedenle gelecekte yapılacak araştırmalarda örneklem kitlesinin dikkate alınarak farklı sektörlerle karşılaştırmalı analizlerin yapılıp literature katkıda bulunulması önerilmektedir.

Anahtar Kelimeler: Bilgi Sistemleri, Stratejik Rol Liderliği, Öğrenme Yönelimi, İş Stratejileri Rolü, Örgütsel Grup Kültürü

Introduction

Learning orientation, which reflects whether the existing practices and beliefs in organizations maximize performance or not, proactively directs organizations to new information (Baker et al., 2013). In research, Bennett (1998) states that there are innovative behaviors, clear management, effective leadership and task distribution in learning-oriented organizations and argues that there is no rigid bureaucracy (Mavondo et al., 2005). This explanation is especially important for information technology companies that are in constant change and development. In organizations where learning orientation is effective, individuals constantly question the

organizational norms that shape the activities within the organization. In this respect, learning orientation encourages individuals in the organization and directly affects the increase in learning activities. This is especially important for the employees working in the departments to create a group culture within their departments. Learning orientation is conceptualized as organizational values that affect the organization's knowledge acquisition and knowledge use orientation (Sinkula et al., 1997). It encourages the acquisition of new knowledge by questioning the extent to which the current practices and beliefs of the organization affect organizational performance and whether they carry it to the desired level (Ibidunni et al., 2022). In the research, both the independent and mediation variable effects of learning orientation are examined. The positive effects of Business Strategies Role and IS Strategist Role Leadership on learning orientation are supported by the results of the analysis. This situation shows that continuous learning should be supported both in terms of leadership and strategic point of view in the information technology department. Learning orientation is stated as a concept in which an organization's relations with knowledge are expressed (Correia et al., 2023). Hardley and Mavondo (2000) stated that learning is the most important resource for organizations to maintain their competitive advantage (Lee and Tsai, 2005). The concept of organizational culture received a great deal of attention by management science researchers in the late 80s and early 90s, when they were investigating why some American businesses failed to compete against Japanese businesses. When the effectiveness differences between enterprises are examined, it is seen that national culture cannot provide an adequate explanation (Schein, 1990). In the studies conducted on the difference of this effectiveness, it has been determined that the superior financial performance of the enterprises is due to the concept of organizational culture, which consists of a strong set of managerial values and beliefs that determine the way they do business (Barney, 1986). There are various definitions of the concept of organizational culture in the literature. Organizational group culture is examined in the research. There is a difference between the culture of the organization as a whole and the culture of the departments. It is very normal to have a difference between the culture of the IT department and the culture of the human resources, marketing, finance and other departments. In order to understand the concept of organizational group culture, it is necessary to understand organizational culture first. Hofstede (1998) defined organizational culture as “the collective programming of the mind that distinguishes members of one organization from members of another organization”. It supports this view, in other words, it is stated that culture is not a variable, but a paradigm for interpreting organizational life processes, and it is explained that organizations are cultures (Cheung-Judge & Holbeche, 2012). It can be stated that organizational culture has an important role in the formation of the goals and strategies of the organization, and it also has an important effect on the organizations to gain competitive advantage, especially in today's business world where competition is high and change is fast. Organizational group culture is the culture that employees create among themselves in the environments they are together. For this reason, the research was conducted by collecting data from the employees in the information technology department of the companies in the information technology sector. The analysis of the data collected from 417 employees was made in the smartpls program. Hypotheses were supported in the analysis results. Since the sample of the research consists of information technology companies registered in Borsa Istanbul, it is recommended to contribute to the literature with comparative analyzes by taking this situation into account in future research.

Literature Review

Business Strategies Role

Business strategies are important in establishing a good balance in the organization as a whole and in performing the role well within the organization (Ding et al., 2014). Business strategies have the feature of integrating business-oriented roles to roles. Another important factor in the role of business strategies is information technology (IT) orientation as a business orientation (Chun & Mooney, 2009; Smaltz et al., 2006). Business strategies role is stated as an organizational-centered concept in the effective fulfillment of organizational strategy (Chen et al., 2010). It is stated that business strategies will affect the performance of the organization positively by creating a good balance in the internal and external environment of the organization (Preston et al. 2008). At the same time, CIOs who play an active role in the business strategies role can be effective in increasing both the business value of the information system and the corporate performance (Karahanna & Watson, 2006). At the same time, the role of business strategies is also important in responsibilities. Because in order to manage IT, it is also important to coordinate the teams to improve business processes with a disciplined management approach and to be strategically involved in decision making and planning. Business strategies also have a responsibility that increases the value of the IT department and restructures and renews the business processes in the department (Applegate & Elam, 1992). In the IT department of business strategies role, information and data have an important function in the development and implementation of strategies with a technology-oriented approach (Feeny et al., 1992). In this context, the effects of business strategies role on learning orientation and organizational group culture are examined in the research. Hypotheses:

H1: Business strategies role has a positive effect on learning orientation in companies in the information technology sector.

H2: Business strategies role has a positive effect on organizational group culture in companies in the information technology sector.

IS Strategist Role Leadership

When the concept of leadership is mentioned, a leader has the power to motivate individuals to work and bring them together and act in cooperation (Vromm & Jago, 2007). A leader is the ability to use his/her power to successfully achieve his/her goals by influencing a group in order to reach the determined goals. Strategic leadership focuses on the ability of individuals to carry out and manage the tasks/responsibilities assigned to them (Finkelstein & Hambrick, 1996). In this context, strategic leadership means the ability to choose and implement strategies that have a significant impact on organizational performance. In order to explain the concept of information system (IS) strategic leadership, it is necessary to explain the concept of CIO first. The CIO is defined as the IS leader in an organization as the highest level manager (Armstrong & Sambamurthy, 1999). There are four important concepts in the IS strategic leadership concept. First: the desire to be successful by focusing on fulfilling responsibilities (Broadbent & Kitzis, 2005a). Second: the desire to explore technology and business concepts together (Chen et al., 2010). Third: There is an organizational-centered leadership understanding without the influence of the IS strategic leadership presence (Smaltz et al., 2006). Fourth: leadership at

the executive level, which has an impact on organizational performance (Karahanna & Watson, 2006). The fourth criterion covers IS leadership in detail, both organizationally and technologically. Karahanna and Watson (2006) state in their research that IS strategic leadership is aimed at improving IS profits that affect the organization by taking into account the performance process (Broadbent & Kitzis, 2005b). Therefore, organizational performance is very important in IS strategic leadership. For IS strategic leadership, it is stated that it will be possible to achieve success in corporate results by adopting the IS vision of the CIO. For this reason, it is argued that the CIO can achieve the IS vision by performing business and IS activities (Ding et al., 2014). In this context, the effects of IS strategic role leadership on learning orientation and organizational group culture are examined in the research. Hypotheses:

H3: IS strategic role leadership has a positive effect on learning orientation in companies in the information technology sector.

H4: IS strategic role leadership has a positive effect on organizational group culture in companies in the information technology sector.

Learning Orientation

Learning orientation; it is seen as an adaptation process towards success in new or challenging situations. It is stated that learning-oriented individuals see such situations as opportunities for self-development and believe that abilities can also be developed. In addition, it is stated that efforts to discover and learn can provide self-development, individuals are persistent in the face of obstacles and failures, and see mistakes as a means of development (Inkumsah et al., 2021). It is stated that learning orientation is an organizational value that enables the formation of information processing behaviors by producing information (Sinkula et al., 1997). Learning orientation can increase the internal and external change rate of the organization, but the process of establishing learning orientation in the organization may take a long time (Baker & Sinkula, 1999). The effort of individuals within the mental structure formed within the scope of learning orientation is seen as an instrumental strategy to develop abilities that can provide high-level performance in the future (Zafar & Mehmood, 2019). In organizational context, learning orientation; it is defined as an activity that actively encourages learning with an effort to create new knowledge to improve the abilities of the members of the organization in order to strengthen the competitiveness of the enterprise (Palumian, 2021). In this context, both the independent and mediator variable effects of Learning Orientation are examined in the research. Hypotheses:

H5: Learning orientation has a positive effect on organizational group culture in companies in the information technology sector.

H6: There is a mediation effect of learning orientation between business strategies role and organizational group culture in companies in the information technology sector.

H7: There is a mediation effect of learning orientation between IS strategic role leadership and organizational group culture in companies in the information technology sector.

Organizational Group Culture

The concept of group culture emphasizes flexibility and change in organizations, providing a strong internal focus on competing values framework. Since group culture allows individuals to communicate closely with each other, importance is also given to basic principles: team orientation (O'Reilly et al., 1991) and clan culture (Cameron et al., 2006). The purpose of organizational group culture is to provide group support (Cameron & Quinn, 1999). Belonging, commitment, trust and participation are core values of organizational group culture. The fact that individuals are in a strong organizational group culture shows that their loyalty and commitment are strong (Lucas & Kline, 2008). This situation increases the sense of belonging of individuals to the group they are in and it can be easier for individuals to express their opinions both in decision making and problem solving (Seago, 1996). D'Iribarne (2002) explains in research that organizational group culture, employee participation and sense of belonging reinforce each other. Organizational group culture means that employees in the same working environment have a high level of participation in communication and decision-making processes with each other. In organizational group culture, it is very important to share information among employees and support each other. Organizational group culture is accepted as an important concept that motivates employees to participate in the organization. In this context, the effects of IS strategist role leadership, business strategies role and learning orientation on organizational group culture are examined in the research.

METHODOLOGY

The analysis of the research was made using the SmartPLS 4 package program. Structural Equation Modeling was done with SmartPLS 4 program. Structural equation modeling (SEM) was preferred as the analysis method. For analysis, data were collected from companies in the information technology sector in Istanbul. In total, 417 personnel from companies operating in this field participated in the survey.

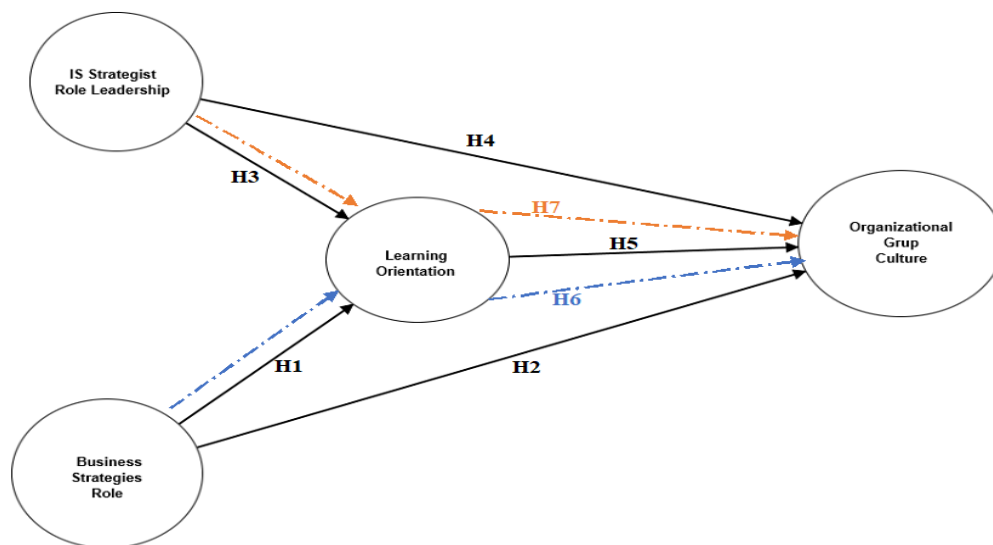


Figure 1. Research Model

In the preparation of business strategies role questions (Cronbach's alpha = 0.747), Ding et al. (2014)'s study was used. The study of Ejdy's (2015) was used in the preparation of the learning

orientation questions (Cronbach's alpha = 0.839). In preparing the organizational group culture questions (Cronbach's alpha = 0.77) Huang et al. (2011)'s studies were used. In the preparation of IS strategist role leadership questions (Cronbach's alpha =0.747), Ding et al. (2014)'s study was used. Questionnaire questions were given at the end of the research under the name of Appendix 1.

Since the analysis of the variables examined in the research requires a quantitative approach based on the relationships between statistical concepts, the research framework includes examining the relationships between the variables and testing the hypotheses (Thomas et al., 2015).

Population and Sample

Questionnaires were collected from employees of information technology companies registered and traded in Borsa Istanbul. A total of 417 employees, 212 men and 205 women white collar employees, responded to the survey. While 148 (35.4%) of the participants were in the 25-34 age group; 244 (58.5%) of them are in the 35-44 age group. The number of employees over the age of 45 is 25 (0,05). While 326 (78.1%) of the employees who answered the questionnaire were university graduates; 84 (20.1%) have master's degrees and 7 (0.01%) have doctorate degrees.

At the same time, employees were asked about the level of reaching the goals they set individually in the survey. Distribution of employees according to their answers to this question; The level of reaching the goals of 34 participants was “Very Low”, the level of reaching the goals of 52 participants was “Low”, the level of reaching their goals by 123 participants was “Medium”, the level of reaching their goals by 157 participants was “High”, and the level of reaching their goals by 51 participants was “Very High”.

Analyzes

Structural equation modeling was used in the present research. Partial least squares (PLS_SEM) was used for research, measurement and evaluation of the structural model with the help of SmartPLS 4 software. Evaluation of the model via SmartPLS involves two steps. In the first step, the internal consistency, reliability, convergent validity and discriminant validity of the measurement model are evaluated.

Table 1. Outer Loadings and T Statistics

		Factor Outer Loadings				T Statistics Value					
	Item	BSR	SRL	LO	OGC		Item	BSR	SRL	LO	OGC
Outer Loadings	Item1	0,68	0,86	0,68	0,74	Outer Loadings T Stat.	Item1	10,83*	24,35*	15,93*	16,48*
	Item2	0,68	0,81	0,72	0,65		Item2	10,91*	21,55*	16,49*	11,43*
	Item3	0,71	0,89	0,65	0,84		Item3	11,14*	27,79*	13,92*	22,84*
	Item4	0,83		0,66	0,69		Item4	17,95*		14,48*	13,99*
	Item5	0,74		0,78			Item5	12,05*		15,55*	
	Item6			0,86			Item6			24,21*	
	Item7			0,72			Item7			15,83*	

*: p value <0,05

It is preferred that each of the external load values be higher than 0.70 (Hulland, 1999). In this research, the Bootstrapping option was used to determine the statistical significance of the external loads and to calculate the T-Statistics values. All calculated values are shown in Table 1.

Table 2. Construct Reability and Validity

	Cronbach's alpha	CR (rho_a)	CR (rho_c)	(AVE)	R Squae	Inner VIF			
						BSR	SRL	LO	OGC
BSR	0,85	0,85	0,85	0,53				1,00	1,00
SRL	0,89	0,89	0,89	0,73				1,00	1,00
LO	0,89	0,89	0,89	0,53	0,47				1,00
OGC	0,82	0,83	0,82	0,54	0,54				

SRMR: 0,04

CR: Composite Reliability AVE: Average Variance Extracted

In Table 2, Cronbach Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), R Square and Inner Variance Inflation Factor (VIF) values are given as Construct Reability and Validity values. It is known that the Cronbach Alpha value of each independent variable and dependent variable is greater than 0.70. Thus, it can be concluded that the distributed questionnaire passed reliably. Convergent validity is obtained over the values of outhur loadings. AVE values should be above 0.50 and CR values above 0.70 in order to ensure an appropriate Convergent validity (Hair et al., 2017). VIF values were checked in order to determine whether there is a multicollinearity problem in the data set. VIF values should be presented when the model is a reflective model (Wong, 2019). The fact that these values are less than 5 indicates that there is no multicollinearity problem. The Chi-Square value is a value interpreted by the sample size and is greatly affected by the sample size. Chi-square (R Square) values above 0.26 indicate a strong relationship (Cohen, 2013). The SRMR value for the predicted model was found to be 0.04. An SRMR value of less than 0.08 is indicative of good fit (Hu & Bentler, 1999).

Table 3. Discriminant Validity Results (Fornell-Larcker etc.)

	Fornell-Larcker Criterion				Heterotrait- Monotrait Ratio			MSV	ASV
	BSR	SRL	LO	OGC	BSR	SRL	LO		
BSR	<u>0,73</u>							0,29	0,25
SRL	0,45	<u>0,85</u>			0,45			0,40	0,32
LO	0,52	0,63	<u>0,73</u>		0,51	0,63		0,46	0,38
OGC	0,54	0,61	0,68	<u>0,73</u>	0,55	0,61	0,67	0,46	0,38

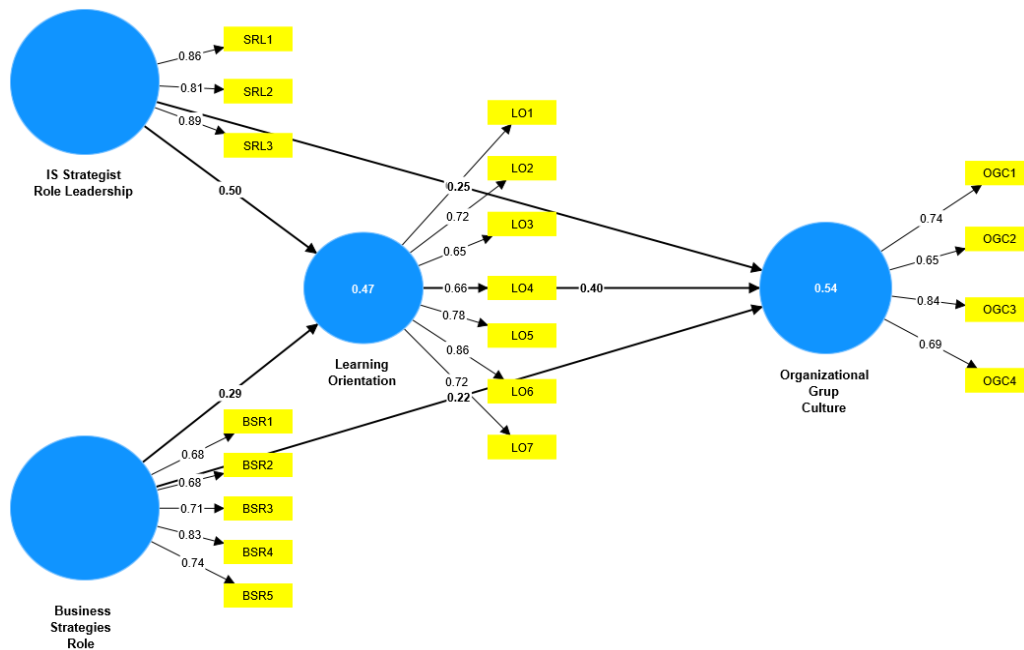


Figure 2. PLS-SEM Path Model of the Research

Path coefficients for the structural model created using SmartPls 4 are shown in Figure 2. A total of seven path coefficients are shown in relation to the model that we previously determined in the research model. Bootstrap was used to evaluate the significance of the path coefficients. The bootstrap sample considered as dual sampling is 5000. In the standard t-test, 1.65 (Significance Level = 10%), 1.96 (Significance Level = 5%) and 2.58 (Significance Level = 1%) hypotheses, which were preferred as 5% significance level in our research, were investigated according to this evaluation.

H1: Business strategies role has a positive effect on learning orientation in companies in the information technology sector.

H2: Business strategies role has a positive effect on organizational group culture in companies in the information technology sector.

H3: IS strategic role leadership has a positive effect on learning orientation in companies in the information technology sector.

H4: IS strategic role leadership has a positive effect on organizational group culture in companies in the information technology sector.

H5: Learning orientation has a positive effect on organizational group culture in companies in the information technology sector.

Table 4. H1-H5 Hypothesis results

	Paths	(O)	(M)	S.S. (STDEV)	T Statistic	2.5%	97.5%	Decision
H1	BSR → LO	0.29	0.29	0.06	4,98*	0.17	0.40	Accept
H2	BSR → OGC	0.22	0.22	0.06	3,65*	0.10	0.34	Accept
H3	SRL → LO	0.50	0.50	0.06	7,78*	0.37	0.62	Accept

H4	SRL → OGC	0.25	0.25	0.10	2,58*	0.06	0.44	Accept
H5	LO → OGC	0.40	0.41	0.09	4,25*	0.21	0.58	Accept

O:Original Sample, M: Sample Mean, S.S.: Standard Deviation, *:p<0,05

In this research, the Bootstrapping option was used to determine the statistical significance of the path coefficients and to calculate the T-Statistics values. All calculated values are shown in Table 4. The t value of (BSR) Business strategies role and (LO) Learning orientation default path is 4.98. Statistical findings revealed that there is a significant positive relationship between both variables. The t value of the default path between (BSR) and (OGC) is 3.65. Thus, it can be said that there is a significant positive relationship between both variables. The third hypothesis aimed to investigate a positive relationship between (SRL) and (LO). In this direction, the t value of 7.78 indicates that there is a positive significant relationship between both variables. The fourth hypothesis empirically tested the positive correlation effect between SRL and OGC. The findings prove that there is a positive relationship between these two variables. The fifth hypothesis explores the effect between LO and OGC. Accordingly, the t value of the assumed path between both variables is 4.25. Thus, the hypotheses are accepted and supported.

Mediating Role Effect

A mediator variable is a variable that partially or completely interferes with the path from one variable to another (Hayes, 2009).

H6: There is a mediation effect of learning orientation between business strategies role and organizational group culture in companies in the information technology sector.

H7: There is a mediation effect of learning orientation between IS strategic role leadership and organizational group culture in companies in the information technology sector.

Table 5. Mediating Effect Hypothesis Results

	Paths	(O)	(M)	S.S. (STDEV)	T Statistic	2.5%	97.5%	VAF	Decision
H6	BSR → LO → OGC	0.12	0.12	0.04	3,27*	0.06	0.20	0,22	Accept
H7	SRL → LO → OGC	0.20	0.21	0.06	3,27*	0.09	0.33	0,44	Accept

O:Original Sample, M: Sample Mean, S.S.: Standard Deviation, *:p<0,05

The table above shows that BSR has a positive and significant effect with LO and OGC (t: 3.27, p<0.05). It also shows that SRL has a positive and significant effect with LO and OGC (t: 3.27, p<0.05).

CONCLUSION AND EVALUATION

It is clearly seen that learning orientation is closely related to organizational group culture. Learning orientation is needed in every organization in order to increase the communication and interaction of employees with each other. Learning mostly takes place by observing and interacting with the environment. On the other hand, while formalized and complex structures delay learning, structures that spread the decision effect to the whole organization improve

learning (Farrell, 1999). This situation shows the importance of organizational structures in terms of learning orientation. Learning orientation directly or indirectly affects business performance through competitive advantage and provides critical insights to management. It can also benefit not only innovation but also other activities of the organization (Calantone et al., 2002). Within the scope of learning orientation; It is stated that personal characteristics can be developed, success can be achieved when effort is made, return is beneficial, and task difficulties and possible failures can provide learning opportunities with adaptation (VandeWalle, 2003). However, the importance of IS Strategist Role Leadership and Business Strategies Role should not be forgotten in terms of their impact on organizational group culture. The leadership effect on the strategist role of the CIO in the information technologies department positively affects both the learning orientation and the group culture of the organization. Business strategies role is also supported by hypotheses that positively affect learning orientation and organizational group culture. For this reason, when a general evaluation is made, more importance is given to organizational culture in order to keep up with competition and change in organizations. The reason for this is that organizational culture creates stability and harmony within the organization. Organizational culture means that it provides stability in the organization, that it is the glue that holds the organization together and that it reveals conciliatory values in the organization. In addition, it also provides harmony within the organization at the point of strategy development to cope with emerging problems (Schmiedel et al., 2019). It has been determined by many researches that organizational culture is effective in the performance of the organization and its being effective and having a say in the sector. With many empirical studies, it has been concluded that organizational culture improves organizational performance. In addition, in a research, it was observed that organizational culture is effective in long-term financial success (Gamage & Tajeddin, 2022). Since the sample population of the research consists of information technology companies registered in Borsa Istanbul, it is recommended that future research should take this limited situation into consideration. There is a need for comparative analyzes between sectors in terms of contributing to the literature.

References

- Applegate, L. M., & Elam, J. J. (1992). New information systems leaders: A changing role in a changing world. *MIS quarterly*, 469-490.
- Armstrong, C. P., & Sambamurthy, V. (1999). Information technology assimilation in firms: The influence of senior leadership and IT infrastructures. *Information systems research*, 10(4), 304-327.
- Baker, W. E., Mukherjee, D., & Perin, M. G. (2022). Learning orientation and competitive advantage: A critical synthesis and future directions. *Journal of Business Research*, 144, 863-873.
- Baker, W. E., & Sinkula, J. M. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of the academy of marketing science*, 27(4), 411-427.

- Barney, J. B. (1986). Organizational culture: can it be a source of sustained competitive advantage?. *Academy of management review*, 11(3), 656-665.
- Bennett, T. (1998). *Culture: A reformer's science*. Sage Publications Ltd.
- Broadbent, M., & Kitzis, E. (2005a). Interweaving business-driven IT strategy and execution: Four foundation factors. *Ivey Business Journal*, 69(3), 1-6.
- Broadbent, M., & Kitzis, E. S. (2005b). *The New CIO Leader* Harvard Business School Press. Boston, MA.
- Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial marketing management*, 31(6), 515-524.
- Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture: Based on the competing values framework*. Reading, MA: Addison-Wesley.
- Cameron, K. S., Quinn, R. E., Degraff, J., & Thakor, A. V. (2006). *Competing values leadership: Creating value in organizations*. Northampton, MA: Edward Elgar.
- Chen, D. Q., Preston, D. S., & Xia, W. (2010). Antecedents and effects of CIO supply-side and demand-side leadership: A staged maturity model. *Journal of Management Information Systems*, 27(1), 231-272.
- Cheung-Judge, M.Y. & Holbeche, L. (2011). *Organization Development: A Practitioner's Guide for OD and HR*, London: Kogan Page
- Chun, M., & Mooney, J. (2009). CIO roles and responsibilities: Twenty-five years of evolution and change. *Information & management*, 46(6), 323-334.
- Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge
- Correia, R. J., Dias, J. G., Teixeira, M. S., & Campos, S. (2023). Building competitive advantages and business success: the role of learning orientation, reward systems and entrepreneurial orientation. *European Business Review*, 35(1), 92-119.
- Ding, F., Li, D., & George, J. F. (2014). Investigating the effects of IS strategic leadership on organizational benefits from the perspective of CIO strategic roles. *Information & Management*, 51(7), 865-879.
- D'Iribarne, P. (2002). Motivating workers in emerging countries: Universal tools and local adaptations. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 23(3), 243-256.
- Ejdys, J. (2015). Innovativeness of residential care services in Poland in the context of strategic orientation. *Procedia-Social and Behavioral Sciences*, 213, 746-752.
- Farrell, M. A. (1999). Antecedents and consequences of a learning orientation. *Marketing Bulletin-Department of Marketing Massey University*, 10, 38-51.
- Feeny, D. F., Edwards, B. R., & Simpson, K. M. (1992). Understanding the CEO/CIO relationship. *MiS Quarterly*, 435-448.

- Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. Minneapolis, MN: West Publishing Company.
- Gamage, T. C., & Tajeddini, K. (2022). A multi-layer organizational culture framework for enhancing the financial performance in tourism and hospitality family firms. *Tourism Management, 91*, 1-16.
- Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. Sage publications.
- Hardley, F., & Mavondo, F. T. (2000). The relationship between learning orientation, market orientation and organisational performance. In *Australian and New Zealand Marketing Academy Conference 2000* (pp. 1496-1500). Griffith University.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication monographs, 76*(4), 408-420.
- Hofstede, G. (1998). Attitudes, values and organizational culture: Disentangling the concepts. *Organization studies, 19*(3), 477-493.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal, 6*(1), 1-55.
- Huang, X., Rode, J. C., & Schroeder, R. G. (2011). Organizational structure and continuous improvement and learning: Moderating effects of cultural endorsement of participative leadership. *Journal of International Business Studies, 42*(9), 1103-1120.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal, 20*(2), 195-204.
- Ibidunni, A. S., Agbi, B. D., & Kehinde, B. E. (2022). Interacting effects of tacit knowledge and learning orientation in improving firm performance. *Journal of the Knowledge Economy, 1-22*.
- Inkumsah, W. A., Abdul-Hamid, I. K., & Angenu, B. B. (2021). The effect of learning orientation on innovative service development and insurance firm performance. *Academy of Marketing Studies Journal, 25*(2), 1-12.
- Karahanna, E., & Watson, R. T. (2006). Information systems leadership. *IEEE Transactions on Engineering Management, 53*(2), 171-176.
- Lee, T. S., & Tsai, H. J. (2005). The effects of business operation mode on market orientation, learning orientation and innovativeness. *Industrial Management & Data Systems, 105*(3), 325-348.
- Lucas, C., & Kline, T. (2008). Understanding the influence of organizational culture and group dynamics on organizational change and learning. *The learning organization, 15*(3), 277-287.

- Mavondo, F. T., Chimhanzi, J., & Stewart, J. (2005). Learning orientation and market orientation: Relationship with innovation, human resource practices and performance. *European journal of marketing*, 39(11/12), 1235-1263.
- O'Reilly III, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of management journal*, 34(3), 487-516.
- Palumian, Y., Gunawan, K. A., Tarigan, Z. J. H., & Umbara, A. N. (2021). *The role of knowledge sharing and learning orientation in improving innovative work behavior among Millennials in Indonesia* (Doctoral dissertation, Petra Christian University).
- Preston, D. S., Leidner, D. E., & Chen, D. (2008). CIO leadership profiles: Implications of matching CIO authority and leadership capability on IT impact. *MIS Quarterly Executive*, 7(2), 57-69.
- Schein, E. H. (1990). Organizational Culture: What it is and How to Change it. In *Human resource management in international firms: Change, globalization, innovation* (pp. 56-82). London: Palgrave Macmillan UK.
- Schmiedel, T., Müller, O., & Vom Brocke, J. (2019). Topic modeling as a strategy of inquiry in organizational research: A tutorial with an application example on organizational culture. *Organizational Research Methods*, 22(4), 941-968.
- Seago, J. A. (1996). Work group culture, stress, and hostility: correlations with organizational outcomes. *JONA: The Journal of Nursing Administration*, 26(6), 39-47.
- Sinkula, J. M., Baker, W. E., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge, and behavior. *Journal of the academy of Marketing Science*, 25, 305-318.
- Smaltz, D. H., Sambamurthy, V., & Agarwal, R. (2006). The antecedents of CIO role effectiveness in organizations: An empirical study in the healthcare sector. *IEEE transactions on engineering management*, 53(2), 207-222.
- Thomas, J. R., Silverman, S., & Nelson, J. (2015). *Research methods in physical activity*, 7E. Human kinetics.
- Wong, K. K. K. (2019). Mastering partial least squares structural equation modeling (PLS-Sem) with Smartpls in 38 Hours. IUniverse.
- VandeWalle, D. (2003). A goal orientation model of feedback-seeking behavior. *Human resource management review*, 13(4), 581-604.
- Vroom, V. H., & Jago, A. G. (2007). The role of the situation in leadership. *American psychologist*, 62(1), 17-24.
- Zafar, H., & Mehmood, K. K. (2019). Innovation as a mediator between innovative culture, transformational leadership, knowledge management, learning orientation, and performance. *JISR management and social sciences & economics*, 17(1), 149-164.

Appendix 1: Scales

Business Strategies Role		
BSR1. Business units participate in strategic planning and decision-making activities.	Ding et al. (2014)	
BSR2. The business, management and control objectives for which the strategy is effective are realized.		
BSR3. It guides strategy-supported business and managerial process reengineering.		
BSR4. It guides strategy-backed business objectives and management/control objectives.		
BSR5. A strategy evaluation standard is being established.		
Learning Orientation		
LO1. Employees in the organization I work for make an effort to share their experiences.	Ejdys (2015)	
LO2. In my organization, the management repeatedly emphasizes the importance of information sharing.		
LO3. In my organization, unsuccessful organizational attempts from the past are always analyzed.		
LO4. Criticisms from customers are evaluated in the organization I work for.		
LO5. The quality of the decisions and activities taken over time in the organization I work for is constantly evaluated.		
LO6. In the organization I work for, the information arising from the activities is shared between the departments.		
LO7. There are many organizational memories that keep the lessons learned from history alive in the organization where I work.		
Organizational Group Culture		
OGC1. In my organization, management encourages employees to work as a team.	Huang et al. (2011)	
OGC2. In my organization, management encourages employees to exchange ideas.		
OGC3. At my organization, management holds group meetings for employees where they can really discuss things together.		
OGC4. In my organization, management creates teams to solve problems.		
IS Strategist Role Leadership		
SRL1. In the organization where I work, employees participate in the strategic planning and decision-making process.	Ding et al. (2014)	
SRL2. In my organization, employees participate in the creation of its vision and mission.		
SRL3. In the organization where I work, employees participate in the formulation and implementation of the strategy in line with the corporate strategy.		