

Investigating Organization's Innovation Performance in Industrial Markets Based on Market Orientation and Knowledge Creation Capacities

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Abstract

In the era of the knowledge economy, innovation has become one of the key sources of competitive advantage. Successful innovation is influenced by various contextual and environmental factors. The present study, with a combined approach, seeks to investigate the internal and external factors affecting an organization's innovation performance. The purpose of this research is to examine the effect of market orientation and knowledge creation capabilities on an organization's innovation performance, emphasizing the mediating role of relational learning and absorptive capacity. The research method is applied in terms of objective and descriptive survey in terms of nature. The statistical population included all active food industry companies, of which 200 samples were selected based on Jackson's definition and available sampling method. The results of the analyses done using the structural equation model confirm the effect of internal and external identified factors on the organization's innovation performance, revealing that market orientation capability has a positive effect on an organization's innovation performance through the mediating role of relational learning. Also, the ability to create knowledge through the mediating variable of absorptive capacity has a positive effect on an organization's innovation performance.

Keywords: Market orientation capability, Knowledge creation capability, Relationship learning, Absorptive capacity building, Innovation performance.

1. Introduction

In 1965, Peter Drucker proposed that knowledge, as the key element of production, would replace equipment, capital, materials, and labor. Two decades later, he pointed out that future competitive advantage will be determined by knowledge resources. Today, rapid changes in the business world have shortened the life cycle of the main competitive factors. In these market conditions, there is no longer a long-term competitive factor. Therefore, businesses should determine their competitive advantage by understanding market conditions, innovative knowledge, and promoting innovation (Liao et al., 2009). In other words, organizations that are able to acquire, adapt, and exploit the knowledge obtained from external sources have more chances to achieve higher levels of innovation performance and competitive advantage (Lin et al., 2012). Innovation must be based on knowledge; in the age of knowledge, innovation has become one of the key sources of competitive advantage, and to achieve sustainable competitive advantage, organizations must focus on innovation and strengthen their capabilities (Uwem et al., 2024; Liao et al., 2009). Successful innovation is influenced by various environmental and background factors (Roberts, 2003). For example, to improve innovation performance, organizations are

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motivated to perform learning activities to improve innovative capabilities in the context of technological changes and increasing global competition (Dwyer et al., 1987). In addition, organizations can learn from each other through relational learning to increase knowledge reserves. Relational learning means that management can develop and promote learning capabilities in the relationship between the supplier and the customer. In this kind of relationship, relational learning cannot be created by only one of the parties but requires the desire of both parties to cooperate and participate in learning activities (Selens & Sallis, 2003). Despite the importance of relational learning in acquiring knowledge and creating innovation, the studies conducted on the relationship between relational learning and innovation performance are very limited. In addition to extra-organizational relationship learning, companies should have intra-organizational capacity to improve their innovation performance. Absorptive capacity is defined as the ability that enables organizations to effectively acquire and use external knowledge, which in turn affects their innovation (Prajojo & Ahmed, 2006). To obtain the knowledge needed to promote innovation, organizations cannot only rely on their external communication networks but must simultaneously improve their internal absorptive capabilities to actively access knowledge, because the absorptive capacity of organizations affects the effectiveness of innovative activities. In previous studies, the investigation of the simultaneous effect of internal and external factors on the innovation performance of the organization has not been given much attention (Chen et al., 2009). For this reason, the current research examines the factors affecting an organization's innovation performance with a combined approach that considers the organization's internal and external capabilities together. To investigate the issue more deeply, market orientation and knowledge creation capabilities have been investigated as drivers of relational learning and absorptive capacity in the organization, respectively. Based on this, the current study seeks to answer these questions: 1. Are relational learning and absorptive capacity predictors of organizational innovation performance? 2. Does relational learning influence the relationship between market orientation and innovation performance? 3. Does absorptive capacity affect the relationship between the ability to create knowledge and innovation performance?.

2. Theoretical foundations and literature Review

Market orientation

Market orientation is one of the components of organizational culture that is efficient and effective in creating expected behaviors to create superior value for buyers and superior performance for the organization. Some experts have defined that market orientation includes the three components of customer orientation, competition orientation, and inter-task coordination (Narver & Slater, 1990), while some others consider market orientation to include the creation of market intelligence, dissemination of intelligence, and accountability in the organization. Despite the fact that there are two different theoretical viewpoints to explain the concept of marketing, theorists of both viewpoints agree that the main goal of marketing is to create customer satisfaction and organizational commitment of employees (Jaworski & Kohli, 1993).

Many studies that have been conducted about market orientation show that an organization's market orientation is positively related to its better performance in areas such as profitability, sales growth, and the success of new products (Wasim et al., 2024; Pelham & Wilson, 1996; Slater & Naror, 2000). The basis of the current research is the argument that market orientation culture can strengthen the learning activities between two organizations. Therefore, the cultural concept of market orientation has been used in the analysis of this study (Johnson & Sohi, 2003).

Relational learning

According to the resource dependence theory, an organization forms cooperative relationships and organizes its resources in response to environmental uncertainty. Organizations tend to enter the relational learning process to exert more control over environmental uncertainty or prevent its negative consequences (Li, 2006). Relational learning is formed based on cooperation between organizations and includes a set of social exchanges and cognitive activities based on communication, which consists of the three dimensions of information sharing, collaborative sensemaking, and specific relational memory, and can be conceptualized as one of the characteristics of communication (Najafi-Tavani et al., 2020). Sharing information means exchanging

information with the contact party regarding the product, customer needs, strategies, etc. and the effective flow of knowledge facilitates communication between parties and refers to the extent to which organizations exchange information with each other. Then the created knowledge is integrated with the knowledge storage (common relational memory) of organizations and this is the common output of relational learning. Sharing information between organizations is the starting point of relational learning. The parties of the relationship need to exchange information in order to coordinate and plan their work to achieve their organizational goals. Collaborative sensemaking acts as a mechanism for explaining information and communicating between information and its meaning. It refers to the creation of joint teams to solve problems through the interaction of members with each other and focuses on the extent to which organizations create coordinating teams to analyze and solve their problems (Fang et al., 2011). Specific relational memory is shared knowledge that is stored in the memory of both sides of the relationship and results from intra-organizational learning activities based on communication (Cegarra-Navarro, 2007). Specific relational memory updates and refreshes communication, integrates people's memory, and mentalities as a high-level learning activity, and emphasizes the extent to which they record and modify information related to their relationship with each other (Selens & Sallis, 2003).

When an organization adopts a learning approach, this issue is institutionalized in the organizational culture in the form of dimensions such as a common vision of learning among people, acceptance of new ideas without prejudice, and commitment to learning. In any case, creating a marketing strategy is only a starting point to maximize an organization's ability to collaborate with its stakeholders to learn about the market. For this purpose, it is also necessary to develop and manage interactive communication between the parties to create a market-oriented performance. Market orientation provides strong standards for learning among the organization's stakeholders. In fact, there is a significant relationship between market orientation and learning organization (Liao et al., 2009). Based on the above theoretical foundations, the first main hypothesis of the research is formed as follows:

H1: "Market orientation " has a positive and significant effect on "relational learning".

According to the dimensions identified for the concept of relational learning, the sub-hypotheses related to the first main hypothesis of the research are formed as follows:

H1-1: "Market orientation" has a positive and significant effect on "information sharing".

H2-1: "Market orientation" has a positive and significant effect on "collaborative sensemaking".

H3-1: "Market orientation" has a positive and significant effect on "specific relational memory".

Knowledge creation capability

Researchers have identified key steps for the knowledge management process. Some have considered the process of knowledge management to include three stages of absorbing, transferring, and using knowledge, and others have introduced acquiring, sharing, integrating, and using knowledge as the stages of the knowledge management process. Acquiring and creating knowledge are the first steps of the knowledge development process (Yang & Wang, 2006). The ability to create knowledge includes maintaining a continuous internal system for creating, processing, disseminating, and objectifying new knowledge in the organization, which increases the stock of existing knowledge. In fact, the creation of internal knowledge occurs in the organization when the members of the organization produce new knowledge within the boundaries of the company, transfer it to different departments, and integrate it. The ability to create internal knowledge includes adding new components to the company's knowledge base through organizational creativity, experience, internships, experimentation, research and development, and problem-solving. The creation of internal knowledge is basically achieved by investing in research and development and strengthening the problem-solving capabilities within the organization. The creation of internal knowledge is usually the reaction of the organization to the perceived need for that knowledge, which depends on the experience and knowledge base in the organization (Fores & Camison, 2016). However, it should be considered that in the organization, as a unit in contact with the external environment, members can create their knowledge inside the organization based on ideas and information outside the company (Lichtenthaler & Lichtenthaler, 2009).

Absorptive capacity

Absorptive capacity is defined as a set of organizational activities through which organizations acquire knowledge, adapt it, transform its results, and finally use it to create a dynamic organizational capacity. Based on this, the current research has conceptualized the concept of absorptive capacity in the four dimensions of acquiring knowledge, adapting knowledge, transforming knowledge, and applying knowledge. Knowledge acquisition is the ability to identify, value, and acquire external knowledge that is vital for the organization's operations. Knowledge adaptation means activities and processes that enable the organization to understand, analyze, and interpret the knowledge obtained from external sources. Knowledge transformation means the organization's ability to develop activities that facilitate the combination of existing knowledge and newly obtained or analyzed knowledge. Knowledge application means the organization's ability to commercially apply external knowledge to achieve organizational goals (Liao et al., 2009).

The ability to learn and develop internal knowledge requires cultural patterns and communication systems that prepare the organization for change and facilitate the ability to absorb external knowledge (Cassiman & Veugelers, 2006). Fores and Camison (2011) confirmed the relationship between the ability to create knowledge and absorptive capacity in an experimental study. They showed that even if companies are active in environments where knowledge flows freely, such as industrial areas, the absorptive and use of these free flows of knowledge are completely conditional on the development of an internal information base in the organization that already exists; because this internal information base enables the organization to understand external knowledge flows and integrate external knowledge with the internal knowledge of the organization (Fores & Camison, 2016). Based on this, the second research hypothesis is formed as follows:

H2: " Knowledge creation capability" has a positive and significant effect on " absorptive capacity".

According to the dimensions identified for the concept of absorptive capacity, the sub-hypotheses related to the second main hypothesis of the research are formed as follows:

H2-1: "Knowledge creation capability " has a positive and significant effect on "acquirability".

H2-2: "Knowledge creation capability " has a positive and significant effect on "adaptability".

H2-3: "Knowledge creation capability" has a positive and significant effect on "transformability ".

H2-4: "Knowledge creation capability " has a positive and significant effect on "applicability".

Innovation performance

Innovation is the process of turning an idea into a product so that it creates value for customers or makes them willing to pay for that product. The innovation process includes several stages, from idea discovery to its implementation, the success of which depends on the organization's efforts (Gupta & Malhotra, 2013). The organization's innovation performance is conceptualized in the form of product innovation performance and process innovation performance (Tang et al., 2013). Product innovation performance is the successful result of exploiting new knowledge (Currado et al., 2018). Product innovation includes introducing a new or improved product to the market and is focused on identifying new customer needs, product quality management, and developing an effective market development strategy. Process innovation refers to adapting to new or improved methods in order to produce products. The main goal of process innovation is to reduce production time and operational costs while improving production flexibility. This dimension of the innovation performance of the organization is focused on maximizing the efficiency of activities in order to produce products. In a competitive business environment, both product innovation and process innovation are important for the growth of the organization. While product innovation has a direct and obvious effect on the organization's outputs, the effect of process innovation is less visible outside the organization. However, when new products require a manufacturing and delivery process to reach customers, process innovation can influence the process of turning an idea into a product that can be delivered to customers and also inspire new products in the organization (Tang et al., 2013).

To develop innovation, organizations can learn from their business partners, customers, and suppliers through relational learning (Huber, 1991). Previous studies show that there is a positive relationship between organizational learning and organizational innovation performance (Baker & Sinkula, 2007; García-Morales et al., 2007). This means that the ability to learn a relationship strongly affects performance and enables organizations to acquire the knowledge and vital information needed to develop innovation from their network

members (Chen et al, 2009). Moreover, the relational approach to competitive advantage introduces relational learning as an important attitude in promoting competitiveness and creating profitability in relationships (Li, 2006). According to the above theoretical foundations, the third hypothesis of the research is formed as follows:

H3: "Relational learning" has a positive and significant effect on "organizational innovation performance".

According to the dimensions identified for the concept of relational learning, the sub-hypotheses related to the third main hypothesis of the research are formed as follows:

H3-1: "Information sharing" has a positive and significant effect on "organizational innovation performance".

H3-2: "Collaborative sensemaking" has a positive and significant effect on "organizational innovation performance".

H3-3: "Specific relational memory" has a positive and significant effect on "organizational innovation performance".

As mentioned before, absorptive capacity is one of the most important factors determining the organization's ability to acquire, adapt, transform, and profitably use of the new knowledge obtained to improve innovation performance (Zahra & George, 2002). Absorptive capacity enables organizations to effectively acquire external knowledge and use it as well as internal knowledge that affects their innovation capabilities and increases the effectiveness of their innovative activities (Daghfous, 2004). The organization's absorptive capacity is beneficial for organizational learning and research and development activities and can determine the levels of organizational innovation and competitiveness (Fichman, 2004; Vinding, 2006). Through absorptive capacity, organizations develop their knowledge and skills, improve their ability to absorb and analyze to apply future information, and gradually improve their performance in areas of technological development. Therefore, an organization that has a higher absorptive capacity can improve its innovation performance. In addition, the absorptive capacity of an organization is crucial for its innovative capabilities (Chen et al., 2009). Based on the above theoretical foundations, the fourth research hypothesis has been examined as follows:

H4: "Absorptive capacity" has a positive and significant effect on "organizational innovation performance".

According to the dimensions identified for the concept of absorptive capacity, the sub-hypotheses related to the fourth main hypothesis of the research are formed as follows:

H4-1: "Acquirability" has a positive and significant effect on "organizational innovation performance".

H4-2: "Adaptability" has a positive and significant effect on "organizational innovation performance".

H4-3: "Transformability" has a positive and significant effect on "organizational innovation performance".

H4-4: "Applicability" has a positive and significant effect on "organizational innovation performance".

3. Conceptual model of research

The current research aims to investigate the effect of market orientation and knowledge creation on an organization's innovation performance, emphasizing the mediating role of relational learning and absorptive capacity. The supporting literature for designing the model and formulating the hypotheses was explained in the theoretical foundations section of the research. Based on this, the conceptual model of the organization's innovation performance is designed as follows. Figure 1 shows the conceptual model of the research.

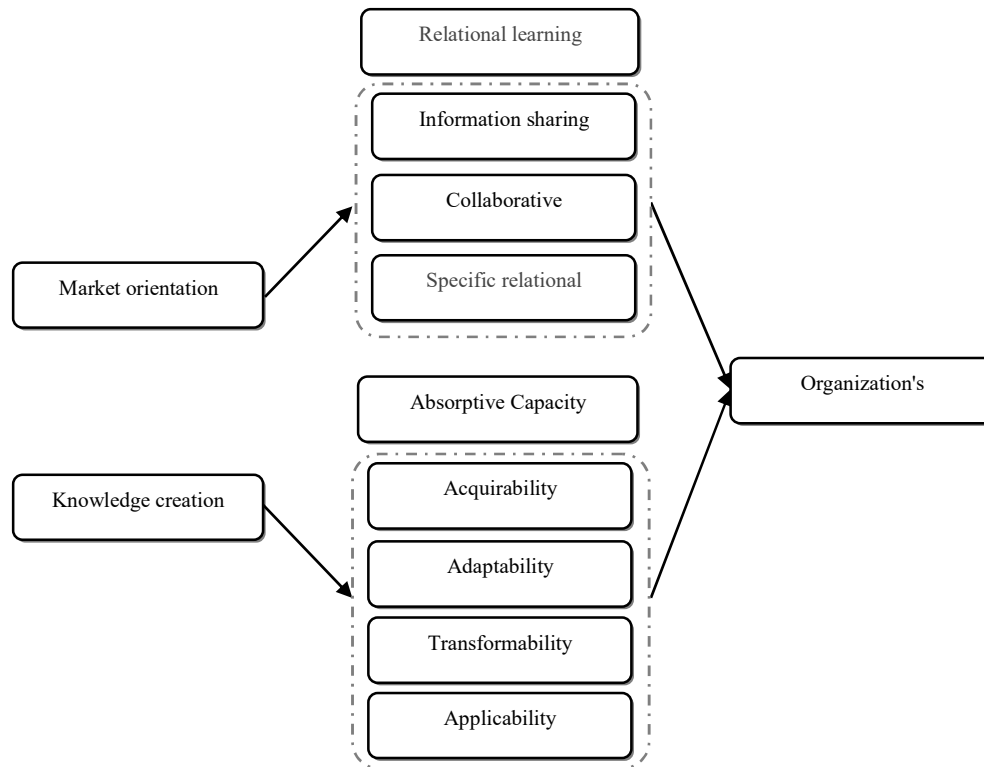


Figure 1. Conceptual model of the research

4. Methodology

The current research is applied and descriptive in terms of objective and nature. This study was done at the organizational level. The statistical population included all active food industry companies that had offices in Tehran. The food industry is one of the industries in Iran that faces a competitive environment, and the need to institutionalize concepts such as relational learning, absorptive capacity, and innovation performance is a serious need for manufacturing companies in this industry. To collect data, the available sampling method was used and the questionnaire was distributed among the CEOs or managers depending on their organizational position such as commercial, marketing, product, etc. that are somehow responsible for the business affairs of the company. To estimate the sample size in multivariate statistical analyses, the minimum required sample size is about 20 samples for each hidden variable (Jackson, 2003). Based on this, the sample size of the present study was 200. The information was collected using a questionnaire, which was based on a 5-point Likert scale and contained 37 closed questions that measured the five constructs of the conceptual model of the research.

A content method was used to measure the validity of the questionnaire based on the opinions of academic experts and professional activists in this field, who confirmed its validity. Cronbach's alpha method was also used to measure the reliability of the questionnaire and was estimated at 91% for all questions. Table 1 shows Cronbach's alpha and the data of the research questionnaire. As can be seen in Table 1, all values obtained for Cronbach's alpha are higher than 0.7, indicating the adequate reliability of the questionnaire.

Table 1. Questionnaire information and Cronbach's alpha of research model variables

Variable	Dimension	Number of Questions	Source of Questions	Cronbach's Alpha
1	Market orientation	4	Chen et al. (2015)	0.80
2	Knowledge creation capability	3	Fores & Camison (2016)	0.79
3	Information sharing	3	Fang et al. (2011)	0.82
	Relational learning	4		0.78
	Collaborative sensemaking	5		0.83
4	Acquirability	3	Fores & Camison (2011)	0.85
	Absorptive capacity	4		0.81
	Adaptability	5		0.77
	Transformability	3		0.86
5	Innovation performance	3	Chen et al. (2009)	0.88

5. Research findings

Data analysis was done in two parts, descriptive and inferential statistics. In the descriptive statistics section, the statistical sample was examined in three areas, including gender, age, and level of education, and in the inferential statistics section, the fit of the research conceptual model and hypothesis testing was done.

The results of the demographic analysis show that 86% of the statistical sample of this research were men and 14% were women. Regarding the level of education, bachelor's level had the largest share (47%). Most of the respondents were in the age group of 35-45 years with 32% frequency, and in terms of work experience, most of them had work experience between 5 and 10 years (33%). This information is presented in detail in Table 2.

Table 2. Demographic characteristics of the statistical sample of the research

Variable	Levels	Percent	Variable	Levels	Percent
Age	18-25	5	Academic degree	Diploma	1
	25-35	23		Postgraduate Diploma	4
	35-45	32		Bachelors	47
	45-55	25		Masters	43
	More than 55	15		Ph. D and more	5
Gender	Male	86	Work experience	Less than 5 years	27
	Female	14		5-10	33
				10-15	31
				15-20	9

In the current study, structural equation modeling and confirmatory factor analysis were used with the help of Lisrel software to test the hypotheses and conceptual model of the research.

Measuring the fit of the conceptual model: The confirmatory factor analysis method was used to measure the fit of the research conceptual model. To answer the question of whether the designed model is a suitable measurement model or not, the appropriateness criteria of model fit should be examined. The values of fit indices confirm the fit of the research conceptual model. Lisrel's output for these indicators is shown in Table 3.

Table 3. Fit indices of the research model

Structural model	RMSEA	IFI	NFI	GFI	AGFI	CFI	$(\chi^2/df) < 3$
Acceptable amount	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	<3
Research model index	0.06	0.94	0.91	0.93	0.95	0.92	1.94

As can be seen in the above table, according to the numbers obtained from the estimation of the model, it can be concluded that the conceptual model of the research is very good in terms of fit index. Therefore, the defined relationships can be evaluated in the form of this conceptual model.

Test of hypotheses: To investigate the relationships between the variables and test the research hypotheses, the structural equation model method was used. The output of data analysis in two modes of displaying standard coefficients and significant numbers is shown in Figures 2 and 3.

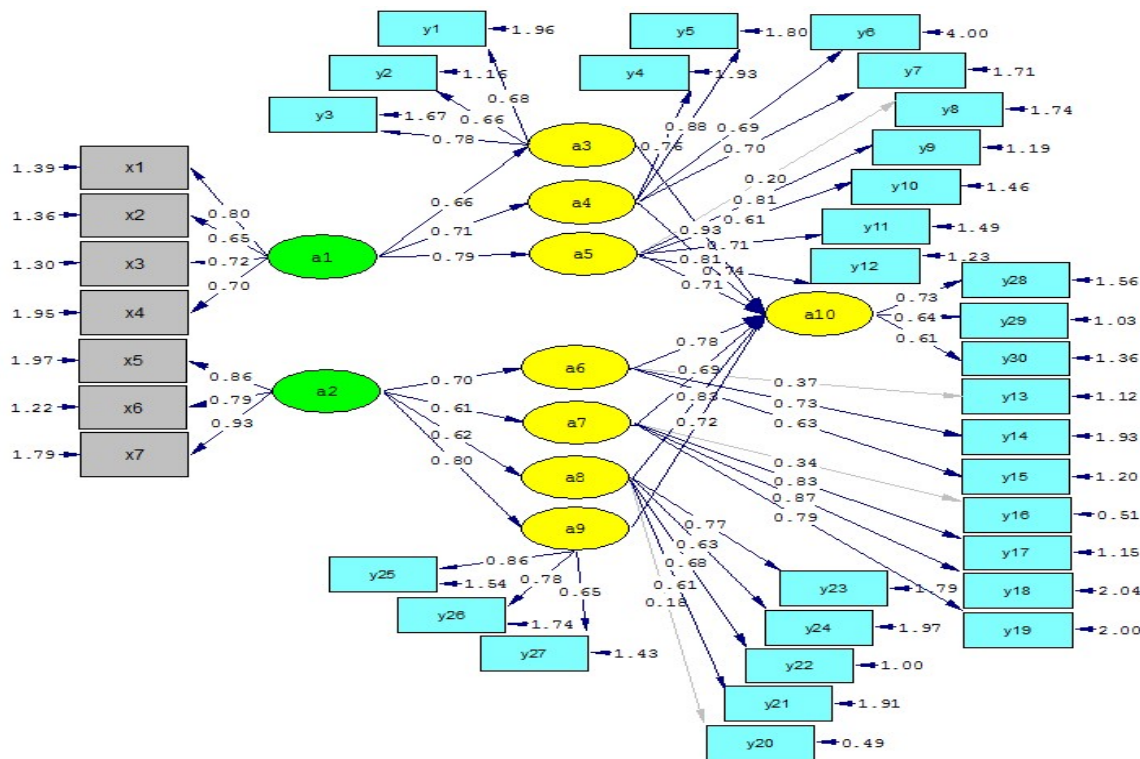


Figure 2. Lisrel output for measurement model in standard estimation mode

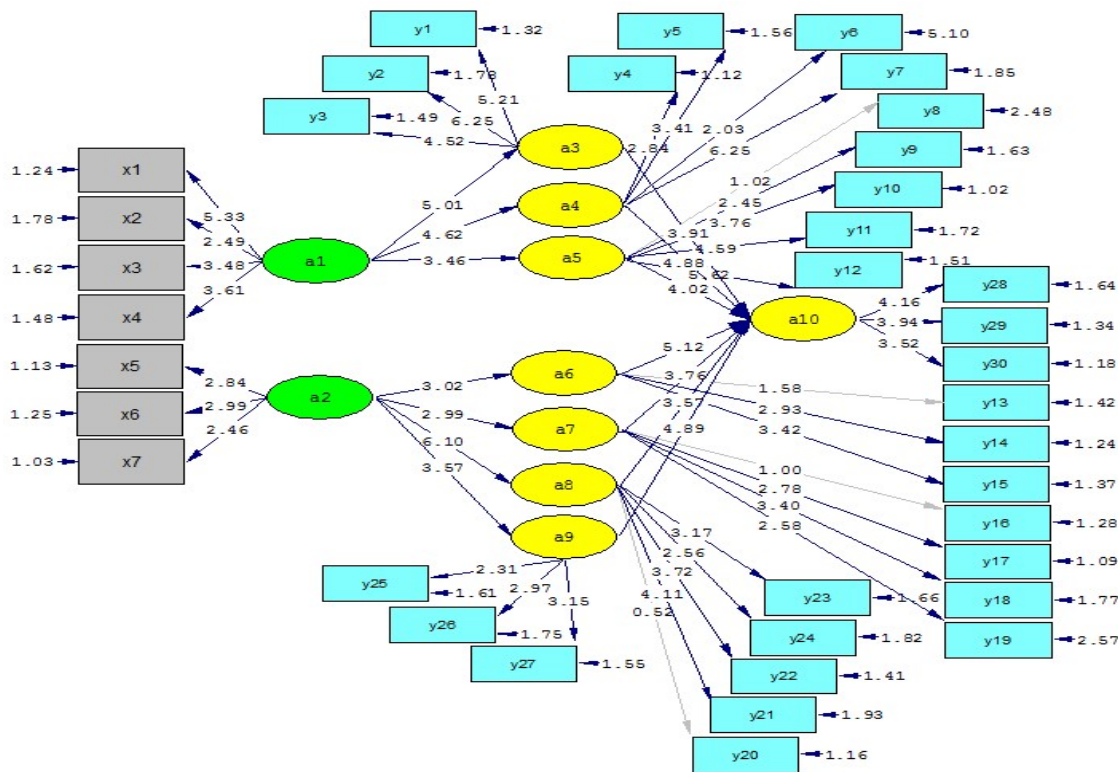


Figure 3. Lisrel output for the measurement model in the mode of displaying significant numbers

According to the results of structural equations, "market orientation" has a positive (correlation above 0.6) and significant (t-statistic greater than 1.96) effect on "information sharing", "collaborative sensemaking", and "specific relational memory". This finding shows that hypotheses 1-1, 1-2, and 1-3 are confirmed.

The results of data analysis also show that the "knowledge creation capability" has a positive (correlation above 0.6) and significant (t-statistic greater than 1.96) impact on "acquirability", "adaptability", "transformability", and "applicability". This finding shows that hypotheses 2-1, 2-2, 2-3, and 2-4 are confirmed.

Additionally, the research findings show that "information sharing", "collaborative sensemaking", and "specific relational memory" have a positive (correlation above 0.6) and significant (t-statistic greater than 1.96) effect on "organizational innovation performance". In this way, hypotheses 3-1, 3-2, and 3-3 are confirmed.

Finally, the findings of the research show that "acquirability", "adaptability", "transformability", and "applicability" have a positive (correlation above 0.6) and significant (t-statistic greater than 1.96) influence on "organization's innovation performance", which confirms assumptions 4-1, 4-2, 4-3, and 4-4.

The summary of the results of the research hypotheses is presented in Table 4.

Table 4. The results of the research hypotheses test

	Hypothesis		Amount	Amount	Result
Market orientation	←	Information sharing	5.01	0.66	Hypothesis confirmed
Market orientation	←	Collaborative sensemaking	4.62	0.71	Hypothesis confirmed
Market orientation	←	Specific relational memory	3.46	0.79	Hypothesis confirmed
Knowledge creation capability	←	Acquirability	3.02	0.70	Hypothesis confirmed
Knowledge creation capability	←	Adaptability	2.99	0.61	Hypothesis confirmed

Knowledge creation capability	←	Transformability	6.10	0.62	Hypothesis confirmed
Knowledge creation capability	←	Applicability	3.57	0.80	Hypothesis confirmed
Information sharing	←	Organizational innovation performance	3.91	0.93	Hypothesis confirmed
Collaborative sensemaking	←	Organizational innovation performance	4.88	0.81	Hypothesis confirmed
Specific relational memory	←	Organizational innovation performance	4.02	0.71	Hypothesis confirmed
Acquirability	←	Organizational innovation performance	5.12	0.78	Hypothesis confirmed
Adaptability	←	Organizational innovation performance	3.76	0.69	Hypothesis confirmed
Transformability	←	Organizational innovation performance	3.57	0.83	Hypothesis confirmed
Applicability	←	Organizational innovation performance	4.89	0.72	Hypothesis confirmed

6. Discussion and conclusion

In this research, to answer the research questions, four factors were investigated to measure the innovation performance of the organization. This research shows that the market orientation and knowledge creation capabilities indirectly affect the organization's innovation performance. In other words, with a strong market-oriented approach, relational learning successfully improves the organization's innovation performance in a competitive environment. Also, knowledge creation capability indirectly affects an organization's innovation performance. If proper infrastructures and internal knowledge creation processes are established in the organization, the absorptive capacity will effectively improve the organization's innovation performance compared to competitors.

The results of the first hypothesis test show that market orientation has a positive and significant effect on the relational learning of the organization. This finding is in line with the research results of Lai et al. (2009) and Liao et al. (2009) based on the fact that the organization's market orientation creates very strong rules and standards for learning from customers and competitors. The confirmation of this relationship means that if market research is done in the organization and the possible effects of changes in the business environment on customers are examined, the organization can form communication channels in the business environment, exchange information related to changing customer needs and expectations with them, and improve its relational learning. Based on this, in order to strengthen relational learning, it is suggested that organizations form teams that collect information about competitors and form the organization's vision of the competitor. It is also suggested that organizations meet their key customers at least once a year so that they can understand their product needs in the future.

The confirmation of the second research hypothesis shows that the ability to create knowledge has a positive and significant effect on the absorptive capacity of the organization. This result is in line with the findings of Cassiman and Veugelers (2006) and Fores and Casimon (2011), who stated that there is a direct and positive relationship between the ability to create internal knowledge and the capacity of absorptive in the organization. Confirmation of this hypothesis means that if the employees of the organization are committed to innovation at the individual level, have motivation for it, are aware of the organization's learning goals, and are compatible with these goals, the ability to create internal knowledge in the organization will be improved and subsequently the organization's absorptive capacity and ability to obtain up-to-date and relevant information increases continuously. Based on this, it is suggested that to improve the absorptive capacity, organizations should develop a culture of innovation in the organization, support learning at management levels, and design organizational systems to invest in research and development.

The result of the third hypothesis test confirms the positive and significant effect of relational learning on the organization's innovation performance. This finding confirms the results of Selens and Sallis's (2003) and Baker and Sinkula's (2007) research, which suggested that through relational learning, organizations can obtain mutual understanding about their customers and suppliers to improve innovation performance. Confirming this hypothesis means that organizations can improve their innovation performance by exchanging information

related to changes in customer needs and expectations and technological changes of products with their business partners, strengthening their communication channels, and negotiating with their partners to solve the organization's problems. Based on this, it is suggested that to improve their innovation performance, organizations exchange information and experiences related to the success and failure of products with their business partners, form joint teams to analyze strategic issues of the industry, and based on this, create joint cooperation programs with their business partners.

The confirmation of the fourth hypothesis shows that the absorptive capacity has a positive and significant effect on the innovation performance of the organization. This result is in line with the findings of Daghfous (2004) and Vinding (2006), revealing that the absorptive capacity of the organization enables it to absorb and use internal and external knowledge effectively, and in this way, promote the organization's innovation performance. Confirmation of this hypothesis means that the higher the organization's ability to obtain information from actual and potential competitors, imitate them, adapt the existing processes and technologies with the newly acquired knowledge, and apply the gained experiences and implement them in the organization, the higher the innovation performance will be. Based on this, to improve innovation performance, it is suggested that organizations develop programs for the development of internal technological platforms with the aim of acquiring external knowledge. Organizations are also suggested to strengthen employees' capabilities to analyze the knowledge obtained by holding training courses for them so that they can adapt the new knowledge based on the acquired experiences and competencies to the necessary conditions of the organization and by using technological infrastructures, improve the flow of information in the organization and increase the sharing of information so that finally the organization can use the acquired knowledge to improve processes and products.

7. Limitations and suggestions for future research

This research was carried out using a questionnaire and cross-sectional method, so it could not examine the dynamic changes in the innovation performance of organizations. It is suggested to carry out research with a longitudinal study and use other data collection tools to investigate these dynamic changes.

This research examines relational learning from the perspective of the organization itself. Future research can examine relational learning by focusing on the interaction between the organization and its customers and suppliers.

This research was done at the organizational level. Future research can provide a multi-level model. In these studies, it is possible to identify the effect of individual-level and organizational-level factors affecting the innovation performance of the organization.

Modulating factors, such as organizational culture, have not been investigated in this research. This factor can be investigated as one of the influencing factors on the organization's absorptive capacity in future studies.

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