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**Analysis of factors affecting organizational innovation and improving members' performance in urban civil development cooperatives**

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ABSTRACT

**BACKGROUND AND OBJECTIVES:** While innovation in some circumstances is detrimental to a number of urban civil development cooperatives many have benefited from the use of innovation strategies around the world. Therefore, this study sought to analyze the effective factors of organizational innovation on the performance of members in urban development cooperatives.

**METHODS:** The statistical population of this study is all urban civil development cooperatives and the sample size consisted of 384 members of these civil cooperatives who were selected using stratified-random sampling method. The data gathering tool was a questionnaire which validity using content validity and construct validity and reliability using Cronbach's alpha coefficient has been reviewed and approved. In order to analyze the data, inferential statistical tests including Kolmogorov-Smirnov test, Student t-test, correlation test and structural equation modeling technique were used.

**FINDINGS:** The results of data analysis showed that the research variables including organizational innovation and members performance in urban development cooperatives are in good condition ( $\beta=0.76$  and  $\phi=0.68$ ). Also, according to the research findings, organizational innovation and its four dimensions, including production ( $\rho=0.72$ ), administrative ( $\rho=0.75$ ), process ( $\rho=0.68$ ) and technological innovation ( $\rho=0.76$ ), has a positive and significant effect on the performance of members in urban civil development cooperatives.

**CONCLUSION:** The results indicated that the development of innovations requires specific organizational resources and capabilities so that the organization can benefit from innovation and its benefits.

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## INTRODUCTION

Today, with increasing labor mobility, increasing division of labor due to globalization activities, increasing intellectual property protection laws, and technical advances in telecommuting, the use of innovation has become a common strategy for businesses (Dahlander and Gann, 2010). Creativity and innovation are an essential pre-requisite for organizational development and excellence. Awareness of its techniques is an unavoidable necessity for managers, staff and researchers. The increase in creativity and innovation in organizations can lead to the improvement of the quantity and quality of services, reduce costs, and prevent loss of resources, thereby enhancing performance and productivity, and motivating and satisfying employees in the workforce (Salimi, 2013). By benefiting from creative texts and innovations in organizations, in particular SMEs will be able to achieve our goals efficiently, be developed and lead an organization and society (Samkhanian et al., 2012). On the other hand, according to most of the scholars, one of the most important reasons for failing to meet the goals of the companies and reducing their competitive ability is the poor performance of the manpower, which is influenced by many factors. In addition, the sales department and its staff are highly regarded by their direct relationship with customers (Karimpour and Chattari, 2014). Therefore, it is important to study the factors affecting the performance of sales force and can affect the performance and success of the organization. One of the factors affecting sales force performance is organizational innovation. Innovation is the application of innovative ideas from creativity. Actually Innovation is referred to as the idea of creativity presented as a new product or service. Organizational innovation can have a positive impact on individual and organizational performance. A review of the innovation literature in relation to Iranian cooperatives shows that today innovation in Iranian manufacturing cooperatives does not have a suitable place (Hashemi Dehaghi, 2015). This sector in Iran is facing problems such as lack of resources, lack of strong liquidity, lack of research and development, lack of innovation, problems in providing resources and raw materials needed, which causes their poor performance. By paying more attention to the reasons for participating in the

innovation process, can be reduced the weaknesses of cooperatives and take a stronger step towards development (Mashdai and Taghavi, 2010). Recent experiences of many countries in the world show that the innovation model is effective in improving the performance of cooperatives (Rahmanian and Nasr, 2010). Also, the knowledge that companies gain from working with other organizations is very valuable for their success and creates an advantage in competitive markets (Ahmadi et al., 2018). What is obvious is the identification and analysis of factors affecting the decision of cooperatives in order to evaluate the innovation environment from the perspective of urban development cooperatives is one of the first requirements and a constructive step towards increasing the participation of this sector in innovation activities and enjoying its benefits. A review of the research background showed that little research has examined the impact of organizational innovation on improving the performance of members in urban civil development cooperatives. The results of these researches indicated that organizational innovation has a positive and significant effect on improving the performance of employees in organizations. Therefore, this issue has been studied and analyzed in this research. The main question of the present research is how does organizational innovation affect the improvement of performance of members in urban civil development cooperatives?

### *Theatrical background Innovation*

Innovation refers to major changes in technological advances or the presentation of the latest concepts of management or production methods. Innovation is a truly dramatic and controversial phenomenon. Innovation is generally an incarnation phenomenon that can only be addressed in certain individuals (Haghighatmanesh 2014). Innovation is the application of innovative ideas from creativity. In fact, innovations are called for the idea of creativity presented as a new service (Ramezanpoor, 2014; Moradzade and BadichiJavan, 2014). In general, companies are creating financial and non-financial benefits for themselves by utilizing the benefits of innovation strategies (Hung and Chou, 2013). Based on Torrens (2000) perspective, innovation in per-

formance improvement has come from a range of strategies and practices used in an evolving organization to identify, create, distribute and enable organizations to gain insight and engagement. [Hossain and Kauranen, \(2016\)](#) has suggested that the use of innovation in order to improve performance in gaining competitive advantage beyond markets and improving the decision-making process is essential for effective decision-making on strategic issues and the creation of a business-driven economy ([Najafipour, 2014](#)). Knowledge management groups divide innovation management in a variety of ways. In one of these divisions innovation is divided into four categories:

**Production Innovation:** This kind of innovation refers to cases in which it can create a change in the company in the production of products and services by bringing about technological changes. This kind of innovation occurs as a result of using a tool, fan, style or system and making changes to products or services. In other words, at the product innovation from two sides; internal side where it depends on knowledge, capacities, resources and the technologies used in the company, however; from the external side product innovation focuses on the consumers' needs and the owners' expectations ([Antonelli, 2012](#)).

**Administrative Innovation:** This type of innovation consists of changes in organizational structure and administrative processes, such as presenting a new idea for a new recruitment policy, allocation of resources, structure of duties and powers ([Hamidi et al., 2013](#)).

**Process innovation:** This type of innovation focuses on improving the flexibility of production, lower production costs (by reducing wage share costs, reducing material intake, reducing waste and production rates, and reducing product design costs), improving working conditions and reducing The environmental damage implies ([Osman et al., 2016](#)).

**Technological innovation:** This type of innovation refers to innovation in the hardware and software technologies used by the company ([Khodadadhasani, 2009](#)).

### *Performance*

The potential success of a business depends on its

organizational performance, which means its ability to effectively implement strategies to achieve institutional objectives ([Randeree and Al Youha, 2009](#)). The performance of any organization depends in large part on the level of skill its leaders possess when it comes to implementing strategies. [Silva \(2014\)](#) described the essence of leadership as a conditional relationship that exists between a manager and his or her followers. Several variables constitute organizational performance, such as business model effectiveness, efficiency, and outcomes ([Boyatzis and Ratti, 2009](#); [Ryan and Bernhard, 2012](#)). It is usually expected that behavioral behavior and performance of the high sales offer will result in a high performance. Behaviors in the behavioral structure include activities related to the supply and performance of members responsibilities, which include knowledge of the characteristics and functions of the goods, the recognition of the causes of failure and the success of the goods on the market and keep up-to-date on the various information of the company and the market. Behavioral sales behavior is the basis for the actual performance and sales results. If the sales force has sufficient information about the goods and the company, it can better off the sale successfully. Therefore, it can be said that behavioral sales behavior has a positive effect on the objective performance of sales ([Azizi et al., 2008](#)). Determining and identifying factors affecting the performance of sales force leads to better planning and management of sales force. Performance of members depends on individual, organizational, and environmental factors. One of the key factors that is highlighted in performance of member's studies is occupational perceptions. Member's perceptions represent the perception and perception of the sales force of various components associated with occupation and occupational environments ([Holmes and Srivastava, 2012](#)). Important occupational perceptions include job ambiguity, job engagement, job conflict, and job satisfaction. These perceptions are pre-requisites of the sales force's sales behaviors such as effort, hard work, smart work and comparative sales, etc. Occupational behaviors as a work activity are the basis for the sales force's performance in various dimensions. . In other words, the chain of perception, behavior, and the result are implicitly used in many studies ([Azizi and Rousta,](#)

2010). Organizational innovation, on the other hand, also has a significant impact on the success of organizations in individual and organizational dimensions, including the improvement of the performance of members in urban civil development cooperatives employees in current market variables (Moradzadeh and BadichiJavan, 2014).

#### *Urban civil development cooperatives*

Pursuant to Article 1 of the Law on the Establishment of Urban Development Cooperatives, approved by the Parliament of Iran on 2010, in order to accelerate the growth and development of cities, directing public resources to the productive sectors, preparing for the entry of cooperative and private sectors into economic activities. And carrying out projects that cannot be transferred to the private sector, companies called Urban Civil Development Cooperatives (UCDC) are formed. Among the most important activities of this cooperative are: carrying out development activities in cities and villages, creating and managing economic, production, distribution and service units, buying shares of state-owned enterprises located in the city, acquiring worn-out lands, and carrying out any transaction, the purchase of securities for the management of cooperative resources and investment in development projects (Ministry of Cooperatives, Labour, and Social Welfare, 2018). Currently, there are 103 urban civil development cooperatives in 23 provinces of the country. These cooperatives have more than 77,000 members and have created 4,783 jobs in the country. At present, Yazd UCDC with 10,000 members and Shiraz UCDC with 9290 people are the largest urban civil development cooperatives in the country. These co-operatives have the necessary capacity to improve the quality of life, improve the social and economic situation of the residents of dilapidated structures and can prevent rural-urban migration and the expansion of informal settlement (marginalization) by directing investment in these cooperatives (Ministry of Cooperatives, Labour, and Social Welfare, 2018 ).

#### *Literature review*

In the field of organizational innovation and employee performance and the relationship between them, there have been studies that briefly refer to

some of them: Vakil Alroaia *et al.*, (2018) studied the determination of the preference of factors affecting the participation of SMEs in open innovation activities. In this study, first by extracting the models of other researches in the field of factors affecting the participation of SMEs in open innovation activities, they explained the appropriate model. Then, in the second stage, from the point of view of 60 experts and managers of SMEs in industrial park, the data was quantitatively evaluated and validated. The results showed that these factors include the parameters of product specifications, internal factors and environmental factors. In addition, the most important factor of product specifications was identified and finally, executive recommendations to increase the effectiveness of these activities for SMEs were provided. Khan *et al.*, (2016) stated that there is a positive relationship between structural capital, relational capital and members' participation with the co-operatives performance while human capital has been found to have a negative relationship. This is further supported by the findings based on the multiple regression analysis whereby all the independent variables were found to be significant expect for structural capital. Based on the findings, this study proposed a model for co-operatives' performance which is based on its intangible assets. Imani *et al.*, (2015) investigated the effect of internal marketing on employee performance considering the effect of intermediate variable of organizational innovation. The results of statistical analyzes indicate that internal marketing has a positive and meaningful effect on employee performance and organizational innovation. Also, organizational innovation has a positive and significant effect on employees' performance. In addition, research findings show that organizational innovation plays a mediating role in the relationship between internal marketing and employee performance. Teymourian (2015) studied organizational innovation and its impact on teachers' performance in Abdanan city. The results of the research showed that there is a significant relationship between organizational innovation and the effectiveness of teachers' performance; and the effect of organizational innovation on teachers' performance is high. Vahdati *et al.*, (2014) examined the relationship between knowledge management and organizational innovation and employee performance in the form of a case study in

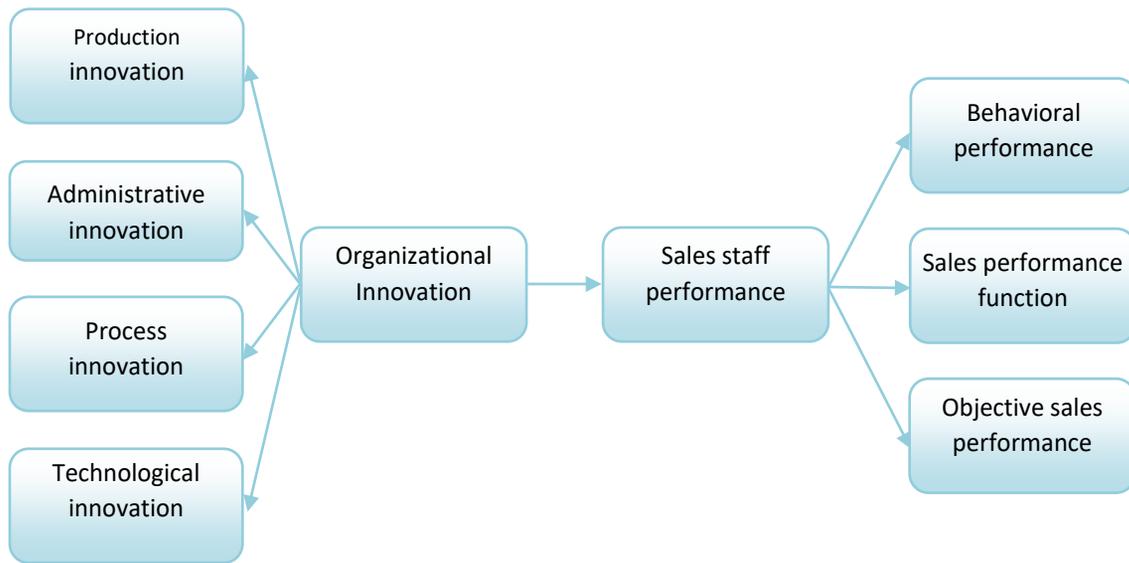


Fig. 1. A framework for determinants of Organizational innovation and performance improvement (Khodadadhassani 2009); Azizi et al., 2008)

Mashhad University of Medical Sciences. The results showed that there is a positive and significant relationship between knowledge management and organizational innovation and staff performance of Mashhad University of Medical Sciences. Osmann et al., (2016) investigated the effect of organizational innovation on employees' performance. Data were collected through a questionnaire completed by 290 employees of a Malaysian manufacturing company. In this research, the impact of innovation and its four dimensions, including innovation in production, process innovation, technological innovation and organizational innovation, as well as employees' attitudes towards their performance, were studied. The results showed that the attitude of the employees and all four types of innovation on the performance of the employees has a positive and significant effect. Preenen et al., (2015), examined the relationship between labor productivity variables. The results showed that companies with high internal workforce flexibility have better labor productivity and innovative performance. There is also a positive and significant relationship between innovation and labor productivity in manufacturing companies. Kurt et al., (2015), in a paper entitled "Innovation and Labor Productivity in Countries", using Panel Method and based on data from 2000 to 2012, examined the relation-

ship between innovation and labor productivity in five countries of Brazil, Russia, India, China and South Africa and concluded that there is a significant relationship between the above concepts and with increasing levels of innovation at the level of companies and the economies of countries, the productivity of labor in it The country rises. According to Mastrangelo et al. (2014), competent leaders influence their followers. Organizational leaders play a vital role in the achievement of organizational goals and objectives by creating a conducive environment that influences employees' behaviors, attitudes, and motivations. In addition, according to the research results, there is a positive and significant relationship between innovation and labor productivity in companies. In this research, by studying the subject literature and the history of research, summarizing theories and findings of empirical research, and interviewing a number of university owners, a conceptual model of research that illustrates the effect of organizational innovation on improving the performance of sales staff in businesses Small and medium sized, which can be seen in the form of (Fig. 1). In this model, Organizational Innovation (OI) based on Khodadadhassani's research (2009) includes four dimensions of Production Innovation (PI), Administrative Innovation (AI), Process Innovation (PrI) and Technological

Table 1: Cronbach's alpha value for the research questionnaire

Variable	Cronbach's alpha	Variable	Cronbach's alpha
Administrative innovation	0.869	Behavioral sales behavior	0.769
Production innovation	0.914	Sales performance function	0.832
Process innovation	0.874	Objective sales performance	0.806
Technological innovation	0.822	Sales staff performance	0.788
Organizational Innovation	0.813		

Innovation (TI). Also, the performance of firms based on the research by Azizi *et al.*, (2008) includes three dimensions of behavioral behavior, sales performance and objective performance of members.

According to the proposed model, the research question is as follows:

How does organizational innovation affect the performance of members in urban civil development cooperatives?

The current study has been carried out in Semnan during the period of 2019- 2020.

## MATERIALS AND METHODS

The present research is applied as the target and in terms of collecting data, descriptive research is a correlation type. The statistical population of the research includes 103 city development cooperatives that are currently operating in 23 provinces of the country. Due to the fact that the size of the statistical population was unknown, the population was unlimited and the sample size was equal to 384 people. The sampling method used in this research is stratified random method. A questionnaire was used to collect field information. Questionnaires have been distributed among co-operatives board of members of the 100 best co-operatives in Iran. So, in each co-operatives, 3-4 of the managers have done to complete the questionnaire. Finally, according to the follow-up, 387 questionnaires were completed and used for analysis. The questionnaire consists of three main section. In the first section, demographic information is provided by the statistical sample and general information of the companies. The second section of the questionnaire examines the status of organizational innovation in co-operatives using 20 questions. In the third section, the performance of the members of the cooperatives is analyzed using 16 questions. The answer options have a five-point scale and are

categorized from very low (= 1) to very high (= 5). In order to ensure the validity of the questionnaire, content validity and construct validity were used and, according to the literature and the background of the research, interviewing the university experts, the validity and reliability of the questionnaire was verified and confirmed. A questionnaire was used to test the reliability of the questionnaire and the questionnaire was distributed in a sample of 30 participants and its Cronbach's alpha was calculated using SPSS software. The results are shown in Table 1. As it is seen in the table, the reliability of all sub-sets is relatively high and the acceptable level is more than 0.70. Therefore, the research questionnaire has a desirable reliability.

For analyzing the data, inferential statistics tests including the Kolmogorov- Smirnov, T-test, correlation test and Structural Equation Modeling (SEM) were used. SEM is a multivariate and powerful technique from the multivariate regression family and, more precisely, is the extension of a linear model, which allows the researcher to test the set of regression equations simultaneously. One of the main advantages of path analysis or structural equation modeling is that it enables the researcher to measure the direct and indirect effects of a variable on another and compare its value with one another. Therefore, in this research, this technique has been used to investigate the relationship between organizational innovation and performance of sales staff. For this purpose, the statistical software SPSS 19 and LISRELL 8.54 have been used.

## RESULTS AND DISSCUSION

In this study, the exploratory and confirmatory factor analysis has been used to ensure the validity of the measurement tool, the exploratory and confirmatory factor analysis has been used. In this regard, first, using SPSS software, exploratory factor analysis was

Table 2: Bartlett test results and sampling adequacy index

The sufficiency test of the Kaiser-Mir-Eklin Sample on Sampling Suitability (KMO)	Organizational Innovation		Performance of Members of UCDC
		0.861	0.855
Bartlett Test of Sphericity	Chi square	2699.622	2082.285
	Degrees of freedom	190	120
	Significance level	0.000	0.000

Table 3: Factor weights and meaningful values for the organizational innovation variable

Factors	Sub-norm	Standardized Loud Factors	t- value
Production Innovation	Make changes to the company in the field of product manufacturing	0.65	-
	Replacing new products with previous products	0.80	9.78
	Provide new customer service	0.63	7.80
	Change in technologies used in the manufacturing sector	0.62	7.69
Administrative Innovation	Use of new policies and procedures for recruiting staff	0.70	-
	Use of new policies and procedures in allocating resources	0.82	10.58
	Use of new policies and procedures on the structure of duties and powers	0.78	10.02
	Use of new policies and procedures in allocating rewards and benefits to employees	0.76	9.85
	Use new policies and procedures to motivate	0.74	9.61
Process Innovation	Use of new policies and procedures to improve working conditions	0.84	10.79
	Improved production flexibility	0.62	-
	Reduce the consumption of raw materials	0.58	7.27
	Reduced waste rates and resources	0.64	7.92
	Reduce product design costs	0.63	7.75
Technological Innovation	Reduce environmental damage	0.78	9.22
	Changes in administrative processes	0.67	8.16
	Changes in administrative processes	0.53	-
	Innovation in the software technologies used in the company	0.64	6.47
	Use of modern information and communication technologies in performing administrative processes	0.68	6.71
	Use of information systems in different parts of the organization	0.75	7.12

carried out and the sampling adequacy test (KMO and Bartlett test) was performed for different parts of the questionnaire; after ensuring that the data are appropriate for factor analysis and The adequacy of data based on these tests has been done for different parts of the research model (organizational innovation variables and members' performance), factor analysis of the first and second order (Kaiser and Rice, 1974). Table 2 shows the results of the Bartlett test and the sampling adequacy index. According to the table, the sampling rate sufficiency index (KMO) for organizational innovation variables and the performance of the sales staff was 0.861 and 0.885 respectively, which is higher than the desired level of 0.60. As a result, it can be said that the number of samples used is sufficient and the data used for factor analysis is sufficient. Also, the significance level of the Bartlett

test (sig) was less than 0.05, which indicates that the data are suitable for factor analysis and the adequacy of the data is confirmed.

In addition, the total table of variance explained by the components of organizational innovation indicates that the indicators used consist of a total of four factors that can cover about 55% of the variance of the variable of organizational innovation. These factors were named according to the theoretical foundations under the titles of production innovation, administrative innovation, process innovation and technological innovation. In the case of sales variables, salesperson performance also includes three factors of behavioral behavior, sales performance and objective members' performance of over 53 percent of the variable variance of sales staff performance. In the following, using Laser software, the first-or-

Table 4: Indicators fitness model for the organizational innovation

Model fit criteria	Indicator	The amount	Desired limit	Result
$\chi^2$ Relative	$\chi^2/df$	2.34	<3	acceptable
Root mean squares pproximation	RMSEA	0.059	<0.01	acceptable
Stems of residues	RMR	0.015	About zero	acceptable
Normal fit index	NFI	0.92	>0.09	acceptable
Fitness softness index	NNFI	0.93	About one	acceptable
Adaptive fit index	CFI	0.94	>0.09	acceptable
Relative fit index	RFI	0.96	>0.09	acceptable
Additional fit index	IFI	0.95	>0.09	acceptable

Table 5: Factor weights and meaningful values for the salesperson’s performance variable

Factors	Sub-norm	Standardized Loud Factors	t- value
Behavioral Performance	Knowledge base Members of Urban Civil Development Cooperatives information	0.47	-
	The availability of sales force information about the market and rivals is up to date	0.78	5.31
	Information on the specifications and functions of the goods	0.75	5.23
	Understanding the causes of failure and the success of goods in the market	0.64	5.03
	Understanding methods and techniques for convincing customers	0.67	5.06
	Understand the behaviors and practices of customers	0.78	5.31
Sales performance function	Proper behavior when selling a product to a customer.	0.71	-
	Precision Hearing To Understand Customer's Main Concerns	0.53	7.36
	The ability to provide sales in a clear and distinct way	0.75	9.89
	Provide solutions to answer customer questions and objections	0.73	9.69
	Proper response to customer behaviors and practices	0.53	7.18
Objective sales performance	Correct non-verbal communication skills	0.52	7.04
	The suitability of sales volumes in sales force	0.77	-
	Suitability of sales value in sales force	0.78	11.67
	The success rate and effectiveness of sales activities in sales force	0.75	11.04
	Sales force sales growth compared to previous periods	0.65	9.52

der confirmation factor analysis is performed for the organizational innovation variable. In the interpretation of factor analysis results, standardized weighting is of great importance. These weights indicate the correlation between each observed variable and its associated factor. Also, significant values indicate the correlation between each observed variable and its associated factor. Table 3 shows the summary of the results of the confirmatory factor analysis. According to the table, all items related to each of the structures have a positive and significant factor load, and the smallest meaningful value is 6.47, which indicates that the convergent validity criterion is satisfactory.

Table 4 shows the indicators of goodness of fitting the variable of organizational innovation. The results

presented in the table indicate that the organizational innovation variable has a fitness.

The first and second order confirmatory factor analysis were performed for the salesperson performance variable. Table 5 shows the summary of the results of the confirmatory factor analysis. According to the table, all items related to each of the structures have a positive and significant load factor and the lowest value of 5.03 is obtained, which indicates that the convergent validity criterion is satisfactory.

The first and second order confirmatory factor analysis were performed for the salesperson performance variable. Table 5 shows the summary of the results of the confirmatory factor analysis. According to the table 5, all items related to each of the struc-

tures have a positive and significant load factor and the lowest value of 5.03 is obtained, which indicates that the convergent validity criterion is satisfactory. Table 6 shows the goodness indicators of fitting the variable of performance of the sales staff. The results presented in the table indicate that the sales performance variable is well suited to the sales staff.

In this study, Kolmogorov-Smirnov test was used to test the normal variables of the research. Based on the results of this test (Table 7), the significance level for all variables is greater than the error level (0.05). Therefore, at a confidence level of 95%, it can be said that the data of the research variables are of normal distribution.

Therefore, given the normal distribution of data and the higher number of samples from 30 (based on the central limit theorem), parametric tests can be used to analyze the research hypotheses. Table 8 shows the status of research variables including organizational innovation and performance of members of UCDC, T-student test was used.

As shown in Table 9, for all variables, the test statistic (t) is more than the critical value (1.64) and the significance level of the error level (0.05). Also, given that the lower and upper limits are both positive, it can be concluded that the average of the responses to the components of the research variables is greater than the test value ( $= 3$ ). In other words, at 95% confidence level, organizational innovation and performance of members of UCDC are in a favorable position. Since the purpose of the study is to investigate the causal relationship between the variables, therefore, before considering the causal relationship, there should be a significant relationship between the variables. Therefore, according to the data type, Pearson correlation analysis has been used to examine the existence of a significant relationship between the variables. The results of this analysis are presented in Table 9.

The results of correlation analysis indicate that there is a significant relationship between the research variables and it can be claimed that there is a positive and significant relationship between organizational innovation and performance of members of urban development cooperatives. After ensuring that there is a meaningful relationship through path analy-

sis, the causal relationship between the research variables is investigated. Here, the relationship between the variables is investigated using structural equation modeling (SEM). And the causality relation between the variables of the model has been investigated. SEM with two objectives is to measure phenomena and study the relationships between phenomena. In this research, both the purpose of studying and testing of (structural) assumptions and the study of the fitting of the proposed model in the research has been studied. Table 10 shows the standardized path coefficients of the direct effects of the variables of the research model.

To test the significance of the relationships between the variables, t is used. If the absolute value of t statistic is larger than the critical value (1.96), there is a significant relationship between the variables. Therefore, considering the t values and the larger test items from the critical value, at 95% confidence level, organizational innovation can have a positive and significant effect on the performance of the members' in UCDC. In other words, with the increase of organizational innovation, the performance of members' in UCDC is also improving. After estimating the parameters of the fitness model, the research model was performed. To this end, various indicators have been considered. Table 11 shows the values obtained for the fitness indicators of the conceptual model of the research.

In summary, the values obtained for the above indicators show that the whole model is compatible with the empirical data used and the conceptual model of the research has a good fit. According to the validation and fitness of the model, through the Lizerl software, the research hypotheses were tested, the results of which were presented in the previous section. It should be noted that the findings of the research with the results of the researches of the Boyatzis and Ratti, 2009; Ryan and Bernhard, 2012; Teymourian, (2015); Hamidi *et al.*, (2013); Vakil Al-roaia *et al.*, (2018); Vahdati *et al.*, (2014) coordinate and approve them. Therefore, it is recommended that corporate executives pay attention to increasing their organizational innovation in order to improve the performance of the members' in the mentioned variables and the relationships between them.

Table 6: Indicators fitness model for the performance of sales staff

Model fit criteria	Indicator	The amount	Desired limit	Result
$\chi^2$ Relative	$\chi^2/df$	2.21	<3	acceptable
Root mean squares approximation	RMSEA	0.064	<0.01	acceptable
Stems of residues	RMR	0.011	About zero	acceptable
Normal fit index	NFI	0.93	>0.09	acceptable
Fitness softness index	NNFI	0.94	About one	acceptable
Adaptive fit index	CFI	0.95	>0.09	acceptable
Relative fit index	RFI	0.92	>0.09	acceptable
Additional fit index	IFI	0.92	>0.09	acceptable

Table 7: Results of Kolmogorov-Smirnov test on the distribution of statistical sample data.

Factor	Average	Standard deviation	The z value in the Kolmogorov-Smirnov test	Significance level
Administrative innovation	3.34	0.617	0.951	0.323
Production innovation	3.38	0.611	0.817	0.427
Process innovation	3.24	0.615	0.828	0.422
Technological innovation	3.36	0.598	0.980	0.281
Organizational Innovation	3.33	0.715	0.995	0.267
Behavioral sales behavior	3.71	0.645	1.109	0.210
Sales performance function	3.78	0.715	1.010	0.241
Objective sales performance	3.73	0.695	1.022	0.236
Members performance	3.74	0.745	1.031	0.221

Table 8: T-test results on the status of research variables

Factor	t-Test statistic	(df)*	Significant level	Difference of averages	Lower Level	upper Level
Administrative innovation	6.67	349	0.000	0.3408	0.2256	0.4560
Production innovation	6.958	349	0.000	0.3818	0.2935	0.4691
Process innovation	6.231	349	0.000	0.2416	0.1705	0.3127
Technological innovation	6.852	349	0.000	0.3624	0.2654	0.4594
Organizational Innovation	6.656	349	0.000	0.3311	0.2198	0.4424
Behavioral sales behavior	7.624	349	0.000	0.7124	0.6212	0.8036
Sales performance function	8.241	349	0.000	0.8703	0.6621	0.8985
Objective sales performance	7.806	349	0.000	0.7322	0.6515	0.8129
Members performance	7.965	349	0.000	0.7416	0.6725	0.8107

\*Degrees of freedom

Table 9: Pearson correlation coefficients between model structures.

Factor	Description	AI	PI	PrI	TI	OI	MP
Administrative innovation	Correlation	1					
	Sig.	0					
Production innovation	Correlation	0.712**	1				
	Sig.	0.000	0.000				
Process innovation	Correlation	0.601	0.702**	1			
	Sig.	0.000	0.000	0.000			
Technological innovation	Correlation	0.627**	0.816**	0.738**	1		
	Sig.	0.000	0.000	0.000	0.000		
Organizational Innovation	Correlation	0.834**	0.912**	0.844**	0.881**	1	
	Sig.	0.000	0.000	0.000	0.000	0.000	
Members performance	Correlation	0.662**	0.758**	0.695**	0.756**	0.975**	1
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000

\*\* Correlation coefficient at 0.01 is significant. \* Correlation coefficient at 0.05 is significant

Table 10. The standardized path coefficients of the direct effects

Path	Path coefficient	t-value
Effect of organizational innovation on sales staff performance	0.76	8.83

Table 11: Indicators fitness model

Model fit criteria	Indicator	The amount	Desired limit	Result
$\chi^2$ Relative	$\chi^2/df$	2.65	<3	acceptable
Root mean squares pproximation	RMSEA	0.041	<0.01	acceptable
Stems of residues	RMR	0.022	About zero	acceptable
Normal fit index	NFI	0.95	>0.09	acceptable
Fitness softness index	NNFI	0.93	About one	acceptable
Adaptive fit index	CFI	0.96	>0.09	acceptable
Relative fit index	RFI	0.94	>0.09	acceptable
Additional fit index	IFI	0.92	>0.09	acceptable

## CONCLUSION

Increasing competition, variety of products and changing consumer patterns has made the role and importance of force-making as the executive arm of the organization more visible. In fact, vendor performance is one of the key factors that affects the performance and survival of the organization on the market. Members' performance is affected by many internal and external factors, among which these are organizational innovation. In fact, given the importance of organizational innovation and its positive effects on individual and organizational performance, this should be the case for corporate executives. Therefore, in this research, the effect of organizational innovation on improving the performance of members' in UCDC has been studied. The results of analyzing research data about the relationship between these variables showed that organizational innovation has a positive and significant effect on the performance of sales staff in SMEs. Also according to analyzes conducted for the relationship between these variables are direct and positive; as organizational innovation increases, the performance of members' in the UCDC is also improving. In addition, based on the results of the research, organizational innovation, the performance of members' and their dimensions in the UCDC are in a favorable situation. In general, considering the hypothesis test and the obtained results, a significant relationship is found between the variables of the research and the conceptual model of the research is confirmed. Therefore, the variables

and components of the research should be considered by the managers of the cooperatives.

## Suggestions

According to the results of the research, it is suggested in the first place to directors of the companies to pay special attention to all the variables and components mentioned in this research and their relationship, and to plan and implement necessary measures to increase organizational innovation in order to improve the performance of members' in UCDC. In addition, due to the synergistic effect of the simultaneous effect of organizational innovation dimensions on employees' performance, managers should try to improve the status of these variables in the company in order to improve the performance and competitiveness of cooperatives more often. In order to achieve high innovation performance, the organization must initially create a platform for the behavioral and cultural innovation, and only in such enabling environments, the organization will ultimately be able to innovate, innovate and function properly. The successful development and introduction of innovations requires specific organizational resources and capabilities to enable the organization to generate profit and benefit from innovation. Also, the conditions that innovative companies are working on are very effective on the implications of innovation. Therefore, it is imperative that the moderators that influence the relationship between innovation and individual and organizational performance should be

taken into account. In order to improve performance and increase individual and organizational productivity, it is necessary on the one hand to pay attention to the research and development department of the companies and to create gradual changes in productivity by fostering the creativity and talent of employees through activities A team and team, on the other hand, will pay attention to the qualities of the team and the consultation mechanism with the staff at the top level of the organization, which will boost the creativity of the members' at the cooperatives, which is what, in many organizations and successful countries, It is being used. Studies have shown that our organizations potentially have the potential to gain valuable benefits from creativity and innovation. Therefore, management and organization must work on acquiring this power. Eliminating extreme and unnecessary activities of organizations, challenging and competing with the environment, reviewing and monitoring more about managers, motivating and providing the ground for creativity in employees can be considered as ways to increase creativity and innovation in the organization. It is important to focus on organizational programs to enhance creativity and innovation at individual and organizational levels, in order to further improve the performance of the members' in the UCDC. Due to the fact that in this research the effect of mediator and intermediary variables affecting the relationship between organizational innovation and the performance of sales staff such as organizational climate and culture, organizational structure, experience, specialty and management style, occupational perceptions, etc. It is suggested to researchers interested in the topic to identify these variables in future research and to examine their importance and how they affect each other. It is also suggested that specific studies be conducted on the subject of research in different companies and industries based on the conceptual model of the research. In addition, the pathology of organizational innovation and the performance of corporate staff should also be considered by organizational researchers.

#### AUTHOR CONTRIBUTIONS

Y. Vakil Alroaia has performed the methodology, literature review, software analysis, result interpretation, data collection, writing original draft prepa-

ration, funding acquisition, and prepared the manuscript text and agreed to the published version of the manuscript.

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#### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy have been completely observed by the author.

#### ABBREVIATIONS

<i>AI</i>	Administrative Innovation
<i>Df</i>	Degrees of Freedom
<i>KMO</i>	Kisser-Mir-Eklin
<i>MP</i>	Members Performance
<i>OI</i>	Organizational Innovation
<i>PMUCDC</i>	Performance of Members of Urban Civil Development Cooperatives
<i>PI</i>	Production Innovation
<i>Pri</i>	Process Innovation
<i>SEM</i>	Structural Equation Modeling
<i>UCDC</i>	Urban Civil Development Cooperatives
<i>TI</i>	Technology Innovation

#### REFERENCES

- Ahmadi, Z.; shafei, M.; vakilalroaia, Y., (2018). The impact of open innovation on company innovative performance with the emphasis on moderating role of market turbulence (Case study: small and medium- sized manufacturing companies in Semnan city). *J. Ind. Technol. Dev.*, 16(4): 73-92 (10 pages). (In Persian)
- Azizi, S.; Roosta, A. (2010). Factors effect salespeople performance based on multilevel approach. *J. Bus. Manage.*, 2(5): 95-108 (14 pages). (In Persian)
- Azizi, Sh.; Razaie, A.; KhodadadHassani, S. H.; Asadollahi, H. (2008). Model of Factors Affecting Sales Force Performance: Structural Equilibrium Approach, *J. Bus. Manage.*, 29(3):

- 274-253 **(20 pages)**. (In Persian)
- Antonelli, C.; Crespi, F.; Scellato, G.; (2013). Internal and external factors in innovation persistence. *Econ. Innovation New Technol.*, 22(3): 256-280 **(25 pages)**.
- Boyatzis, R.E.; Ratti, F., (2009). Emotional, social and cognitive intelligence competencies distinguishing effective Italian managers and leaders in a private company and cooperatives. *J. Manage. Dev.*, 28(9): 821-838 **(18 pages)**.
- Dahlander, L.; Gann, D., (2010). How open is innovation? *J. Res. Policy*, 39(3): 699-709 **(11 pages)**.
- HaghighatManesh, E., (2014). Recognition of organizational Creativity. Tehran, Behnoosh Publishing. (In Persian)
- Hamidi, K.; Iranban, S.J.; Kazemipour, H., (2013). Investigating the relationship between personnel productivity and knowledge management and organizational innovation in Sky Air Base, Shiraz, Tehran, International Management Conference, Challenges and Solutions. (In Persian)
- Khan, H.H.A.; Abdullah, H.; Ah, S.H.A.B., (2016). Factors affecting performance of co-operatives in Malaysia. *Int. J. Product. Perform. Manage.*, 65 (5): 641-671 **(31 pages)**.
- Hashemi Dehaghi Z., (2015). Open innovation and its necessity in organizations. *J. Ind. Uni.*, 7(2): 25-34 **(10 pages)**.
- Holmes, T. L.; Srivastava, R., (2012). Effects of Job Perceptions on Job Behaviors: Implications for Sales Performance. *J. Ind. Mark. Manag.*, 31, 421-428 **(9 pages)**.
- Hossain, M.; Kauranen, I., (2016). Open innovation in SMEs: a systematic literature review. *J. Strat. Manage.*, 9(1): 58-73 **(16 pages)**.
- Hung, K.P.; Chou, C., (2013). The impact of open innovation on firm performance: The moderating effects of internal R&D and environmental turbulence. *Technovation*, 33(10-11): 368-380 **(13 pages)**.
- Imani, S.; Gaskari, R.; Gheitani, A., (2015). Effects of internal marketing on employees performance: Effect of Mediator Organizational Innovation (Case study: departments within The AGHAJARI Oil and Gas Operation Company). *J. Bus. Manage.*, 7(2): 315-338 **(24 pages)**. (In Persian)
- Kaiser, H. F.; Rice, J., (1974). Educational and psychological measurement. *Little Jiffy, Mark IV*, 34(1): 111-117 **(7 pages)**.
- Karimpour, A.; Chattari, A., (2014). Improvement of Staff Performance through Assessment and Coaching. Tehran, Behineh Faragir Publishing. )In Persian(
- Khodadadhasani, S. H., (2009). Innovation in organizations: Concept, types and processes, *J. Manage. Res.*, Tehran, Islamic Azad University, Science and Research Branch of Tehran, 11(3): 64-89 **(26 pages)**. (In Persian)
- Kurt, S.; Kurt, Ü., (2015). Innovation and labour productivity in BRICS countries: panel causality and co-integration. *Procedia-Soc. Behav. Sci.*, 195(2): 1295-1302 **(8 pages)**.
- Mashdai, A.; Taghavi, Z., (2010). Open innovation: The most important competitive advantage of companies in the market. The 10th conference of the Iranian Aerospace Society, Tehran, Iran Aerospace Society, Tarbiat Modares University. (In Persian)
- Mastrangelo, A.; Eddy, E.R.; Lorenzet, S.J., (2014). The relationship between enduring leadership and organizational performance, *Lead. Organ. Dev. J.*, 35(7): 590-604 **(15 pages)**.
- Ministry of Cooperatives, Labour, and Social Welfare, (2018). Law on the Establishment of Urban Development and Civil Cooperatives. (In Persian)
- Moradzadeh, A.; Badichijavan, S., (2014). Creativity and innovation, the basis for increasing productivity and organizational styles in transnationalism. National Conference on Management and Leadership Challenges in Iranian Organizations, Isfahan, Islamic Azad University, Isfahan Science and Research Branch. (In Persian)
- Najafipour, F., (2013). Organizational innovation. Tehran, Iran Institute of Iz Publications. (In Persian)
- Preenen, P.T.; Vergeer, R.; Kraan, K.; Dhondt, S., (2017). Labour productivity and innovation performance: The importance of internal labour flexibility practices, *Econ, Ind. Democracy*, 38(2): 271-293 **(23 pages)**.
- Rahmanian, S.; Nasr, M., (2010). Network Intermediary Model for Open Innovation in SMEs, 4th Iranian Technology Management Conference, Tehran. (In Persian)
- Riillo, C.A.F., (2013). Environmental management, labour productivity and innovation? Preliminary results from a survey of Italian firms using Coarsened Exact Matching. In Proceedings of the 35th Druid Celebration Conference.
- Ryan, G.; Spencer, L.M.; Bernhard, U., (2012). Development and validation of a customized competency-based questionnaire. *Cross Cult. Manage. Int. J.*, 19(1): 90-103 **(14 pages)**.
- Ramezanpoor, Gh.; Davari, A.; Afrasiabi, R.; Zargarani, Y., (2014). The effect of internal and external factors on open innovation. *J. Tech. Deve. Manage.*, 2(1): 29-46 **(18 pages)**. (In Persian)
- Randeree, K.; Al Youha, H., (2009). Strategic management of performance: an examination of public sector organizations in the United Arab Emirates. *Int. J. Knowl. Cult. Change Manage.*, 9(4): 123-134 **(12 pages)**.
- Salimi, M., (2013). Creativity and innovation in organization, Tehran, Center for Strategic Research. (In Persian)
- Samkhanian, M.R.; Derabi, M.; Jahan, R., (2012). Creativity and innovation in Educational Organization and Management, Tehran, Spand Art Publishing. (In Persian)
- Silva, A., (2014). What do we really know about leadership? *J. Bus. Studies Q.*, 5(4): 1-4 **(4 pages)**.
- Sohi, R.S., (2013). The effects of environmental dynamism and heterogeneity on salespeople's role perceptions, *Eur. J. Marketing Perform. Job Satisfaction*, 30 (7): 49-67 **(19 pages)**.
- Osman, S., Shariff, S.H. and Lajin, M.N.A., 2016. Does innovation contribute to employee performance. *Procedia-Soc. Behav. Sci.*, 219: 571-579 **(9 pages)**.
- Teymourian, M., (2015). The Study of organizational innovation and Its impact on teachers 'Teachers' Effectiveness in Abdanan City, Master's Degree, Payame Noor University of

Tehran, Faculty of Humanities. (In Persian)  
Torrens, P.M., (2000). How should we model complex adaptive urban systems. Nexus Projects Workshop, Yorkshire  
VahdatiRohani, S. M.; Nouri I.; Jahan, M., (2014). The relationship between Knowledge management and organizational innovation and staff performance (Case study: Mashhad University of Medical Sciences), Tehran,

International Management Conference in the 21st Century, Ideas Managers Institute Capital of Vieira. (In Persian)  
Vakil Alroaia, Y.; Shafi'i Nikabadi M.; Mesaeli. Sh., (2018). Factors affecting the establishment of production cooperatives based on rural home and family business in Semnan province. Space Eco. Rural Dev. 7(25): 51-66 (16 pages). (In Persian)

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