

Mediation Effect of Organizational Learning on the Relationship between Entrepreneurial Orientation and Organizational Performance in the Agriculture Jihad Organization of West Azerbaijan Province, Iran

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ABSTRACT

The main purpose of this study was to investigate the mediating effect of Organizational Learning (OL) on the relationship between Entrepreneurial Orientation (EO) and Organizational Performance (OP). The target population of the study comprised of all experts of Agriculture Jihad Organization (AJO) of West Azerbaijan Province in the northwest of Iran (N= 1004). Two hundred and forty subjects were selected using a stratified random sampling method based on Bartlett *et al.* (2001) Table. A structured questionnaire was used to obtain data and Structural Equation Modeling (SEM) multivariate technique was used to analyze the data. The results showed that EO had a statistically significant positive effect on OP (P-value= 0.001, β = 0.660) and explained about 44% of its variances. Moreover, the variable OL mediated the relationship between EO and OP (P-value= 0.001, β = 0.423). After inclusion of OL as mediating variable in the model, the predictive power of the model increased by 17%. Based on the findings, it can be concluded that it is necessary for AJO to strengthen OL and its components in order to maximize the effect of EO on OP.

Keywords: Governmental organization, Performance assessment, Structured questionnaire, Structural equation modeling.

INTRODUCTION

As a result of the increasing interest in organizations sustainability and responsibilities towards the society, organizations face the challenge of assessment and evaluation of their performance (Crucke and Decramer, 2016). In fact, performance evaluation and proper understanding of the factors affecting it are the main conditions for the survival and sustainability of organizations and agribusinesses (Rezaei *et al.*, 2017). However, evaluation and improvement of the performance has always been one of the main challenges of the private and public organizations. In this regard, EO or Corporate Entrepreneurship (CE) is a vital corporate strategy (Romero-Martínez

et al., 2010) and an underlying factor that helps organizations to develop and sustain a competitive advantage (Zahra *et al.*, 2000) and improve their performance (Aktan and Bulut, 2008; Alipour *et al.*, 2011). In other words, in the current competitive environment, entrepreneurial attitudes and behaviors are necessary to grow and flourish all firms and organizations regardless of their size (Entrialgo *et al.*, 2000).

However, the simple relationship between EO and OP is examined in various studies (Li *et al.*, 2009; Al-Swidi and Al-Hosam, 2012; Alegre and Chiva, 2013; Shirokova *et al.*, 2016) and the results of these studies have failed to provide a complete image of the improvement mechanisms of OP (Wiklund and Shepherd, 2005). This implies that future studies should be

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focused on examination of the internal and external factors affecting the relationship between EO and OP (Covin *et al.*, 2006; Wang, 2008). In this respect, empirical evidence shows that OL is one of the most important factors (Wang, 2008; Alegre and Chiva, 2013). Despite this, far too little attention has been paid to study on the effect of OL on relationship between EO and OP and much uncertainty still exists in this field. Accordingly, Wang (2008) showed that OL has been a missing link in the examination of the relationship.

Evidence shows that governmental organizations in Iran in general, and the AJO in particular, have not had an appropriate performance and they have always been pressured to improve their performance (Amin Fanak, 2014; Salahi Moghadam, 2014). For example, the results of Rezaei *et al.* (2015) study revealed that performance of AJO in Alborz province was not at appropriate levels regarding most OP components, particularly, environment, incentive, and validity. This view is also supported by Moghadami (2015) who found that organizational effectiveness and its main components (that is, governance, objectives, ethics, and health) in Qazvin province AJO were at low levels. Similarly, in an investigation on OP of West Azerbaijan AJO, Amin Fanak (2014) reported that the employees did not have the necessary physical equipment and facilities to perform their job tasks and they were always faced with financial deficiencies. Moreover, concerning human resources, the employees' job satisfaction and motivation were at low levels and they did not have the necessary ability and expertise to properly play their role in the organization. In addition, centralized management and low level of employees' participation in decision making, low level of employees' innovation and creativity, bulky organizational structure, weak organizational communications among different departments, and lack of commitment by employees to performing job tasks were other issues that caused the West Azerbaijan AJO to have a lower OP. Regarding these issues and due to the importance of EO and OL in improving OP, the main purpose of the current study was to investigate the relationship between EO and OP as well as the mediating

effect of OL on this relationship in the West Azerbaijan AJO, in Iran.

MATERIALS AND METHODS

Development of Conceptual Framework

There is no full consensus among researchers and experts on the definition and indices of OP (Gholami *et al.*, 2013). Indeed, this concept is complex and multidimensional (Ahmadpour Daryani and Karimi, 2017), and different stakeholders have a particular perspective about it (Rasula *et al.*, 2012). This study focused on investigation of OP from the employees' perspective, i.e. the experts of AJO. The contributing factors to this were diversity of views on the measurement of OP, the limitations of the study in accessing the financial data of the AJO, the important role of experts as one of the main pillars of the organization, and the close relation of their activities with OP (Salahi Moghadam, 2014). In this case, various researchers have suggested different models and indicators to measure OP according to their subjects and cases (Mohammadi and Karami, 2013). Undoubtedly, one of the most important models is ACHIEVE model, which has increasingly drawn the attention of researchers in different countries, particularly in Iran (Sarfarazi *et al.*, 2012; Rezaei *et al.*, 2015; Haghshenas Kashani and Shahsavarani, 2015). Since the AJO is a non-profit governmental organization, ACHIEVE model is an appropriate method for assessing its performance, because this model has less emphasis on the financial aspects and its main objective is to measure the performance concerns with improving employees' activities and practices in order to meet the organization goals and to increase the customer satisfaction (Salahi Moghadam, 2014).

The ACHIEVE model suggests that the following seven components should be taken into consideration in the assessment of OP (Sarfarazi *et al.*, 2012; Nazem *et al.*, 2014; Amin Fanak, 2014): Ability: Defined as the knowledge and skills of employees of the AJO in successful accomplishment of their job tasks; Clarity: The employees' perception about their role in the AJO and their familiarity with what, when, and how the task should be performed; Help

(organizational support): The AJO managers' help to employees for performing their job tasks effectively; Incentive: The AJO employees' motivation and interest for performing their tasks successfully; Evaluation: A daily feedback of the AJO employees' performance and formal periodical supervisions; Validity: The valid and appropriate decisions of the AJO managers on various issues of the organization, and Environment: The external factors, particularly, facilities and equipment in the AJO.

Entrepreneurial Orientation and Its Relationship with Organizational Performance

EO is simply considered as the strategy-making processes and styles of organizations and firms that are engaged in entrepreneurial activities and behaviors (Lumpkin and Dess, 2001). In more detail, Hisrich *et al.* (2005) considered EO as a situation in which a group of people as a team within the organization creates risky innovations. Then, EO in an organization is beyond individual entrepreneurship, in which all employees and the organization as a whole engage in entrepreneurial processes. Despite this, since employees are the most important asset of the organization and the main tool for managers to push an organization towards innovation and risk-taking, the more an organization's employees, such as AJO, have the entrepreneurial capability and receive the entrepreneurial education, the higher the level of EO and, consequently, OP will be in the organization (Amin Fanak, 2014). A review of the literature shows that EO is a multidimensional construct (Lumpkin and Dess, 1996). However, most researchers have used four dimensions: Risk-taking, innovativeness, proactiveness, and strategic renewal to operationalize the EO construct. Risk-taking consists of conducting brave actions by risking the unknown, borrowing heavily (Rauch *et al.*, 2009) and taking the opportunity when the success or failure is unpredictable (Dess and Lumpkin, 2005). Innovativeness refers to the organization's wider inclination to develop products and services that are noticeably different from past

offerings (Anderson *et al.*, 2015). Proactiveness indicates superior management tendency in following increased competitiveness comprising initiative and competitive aggressiveness and boldness (Antoncic and Hisrich, 2001). Finally, strategic renewal pertains to the strategy reformulation, reorganization and organizational change (Antoncic and Hisrich, 2001) and introducing influential and system-wide changes for innovation (Zahra, 1993). Accordingly, the AJO will have an EO if it is innovative in conducting organizational procedures and processes and carries out risky activities and projects in providing services to farmers. In addition, the AJO should have a clear vision of farmers' needs and expectations, and it has to revise its organizational strategies with regard to environmental changes and move towards innovation (Amin Fanak, 2014).

As explained earlier, EO is one of the main variables affecting OP and it can play an important role in the improvement of OP (Li *et al.*, 2009). This view is supported by various researchers. For example, the results of Rezaei *et al.* (2016) research showed that EO had a statistically significant positive relationship with OP in West Azerbaijan AJO. Likewise, Al-Swidi and Al-Hosam (2012) conducted a study on the effect of EO on OP in Islamic Banks of Yemen. The findings of the study indicated that there was a significant and positive relationship between EO and OP. Recent studies by Li *et al.* (2009), Zhang and Zhang (2012), Arshad *et al.* (2014), Hussain *et al.* (2015), and Vasconcelos *et al.* (2016) also support the relationship between EO and performance. In sum, the relationship between EO and performance has puzzled researchers for over three decades (Choi and Williams, 2016) and it varies from one organization to another depending on the characteristics of the external environment as well as internal organizational characteristics (Wiklund and Shepherd, 2005). Nevertheless, Rauch *et al.* (2009), in a meta-analysis of 53 independent studies, reported a broadly positive relationship between EO and performance. Hence, on the basis of supporting evidence from the literature, the first hypothesis of this study was developed as follows:



Hypothesis 1: EO has a positive and significant effect on OP.

Organizational Learning and Its Mediating Effect

Real *et al.* (2014) considered OL as a dynamic process of knowledge creation at the heart of the organization via its members and groups. It enables organizations to attain more competitive advantage and help them to become more innovative and improve their performance (Chaston *et al.*, 1999; Real *et al.*, 2006). In the same vein, OL in the AJO can be defined as the process of creating and sharing new knowledge among the organization's employees or reforming the current knowledge in the organization. Overall, OL refers to team learning and improving the capabilities and competencies of the AJO's employees to effectively perform their job tasks (Amin Fanak, 2014). In recent years, various researchers proposed different methods and models to examine OL (Benoit and Mackenzie, 1994; Aponte and Zapata, 2013). This study used the Neefe's (2001) model in which the following seven dimensions were applied to measure OL: Shared vision: defined as establishing commitment in a group by constructing cooperative images of the future including the principles and guiding practices we hope to get (Senge *et al.*, 1994); Organizational culture: the procedure in which things are done in an organization (Joseph and Dai, 2009); Team learning: defined as enhancing capability of obtaining the results desired by the members (Senge *et al.*, 1994); Sharing of knowledge: an essential part of a learning organization (Neefe, 2001) emphasizing on capturing and moving knowledge rapidly and easily (Gephart and Marsick, 1996); Systems thinking: a method of thinking about and a language for explaining and comprehending the forces and associations shaping the system behavior (Senge *et al.*, 1994); Leadership: a factor for driving organizations to speed up learning, helping members to follow new ideas and guarantee the sharing or knowledge and learning (Gephart and Marsick, 1996); Employee capabilities: An organization need to maintain

its performance and continually improve, necessitating major skill empowerment of employees so that their brains and creative capabilities can be mobilized to achieve organizational goals (Kaplan and Norton, 1996).

Suliyanto and Rahab (2012) showed that OL has no direct effect on OP but it must go through other variables that may intervene between OL and OP. In other words, OL occurs at the level of corporate culture and there is probability to be mediated by the variables that have direct effect on performance (Hult *et al.*, 2004). In this case, one of the most important variables is EO (Wang, 2008; Real *et al.*, 2014). Covin and Slevin (1991) asserted that an EO should be related to low structural formalization, decentralization and low complexity. Such an organizational environment may increase the learning, autonomy, and creativity required for innovative behavior (Lumpkin and Dess, 1996). Entrepreneurial firms and organizations that are innovative, present situations in which learning from exploration and experimentation is most likely to occur (Hamel and Prahalad, 1991). This in turn may induce superior performance in the organization. Indeed, an increase of EO can intensify the OL capability and increase the likelihood of the company performance improvement (Real *et al.*, 2014). Therefore, OL can maximize the impact of EO on firm performance (Wang, 2008). According to the mentioned issues, the second hypothesis of this study was developed as follows:

Hypothesis 2: OL has a mediating effect on the relationship between EO and OP.

Despite the existence of a relatively strong theoretical and empirical literature in each of the three domains: EO, OL, and OP, due to the lack of sufficient evidence, there is no consensus among researchers on the theoretical relationships among these three concepts in the form of an integrated model, and to the best of the authors' knowledge, a well-known theory has not yet been proposed in this field. Given this, the current study tried to investigate the relationships among the variables based on the review of the theoretical

and empirical literature. In this respect, based on the results of various studies, particularly by Li *et al.* (2009), Zhang and Zhang (2012), and Rezaei *et al.* (2016) that emphasized the direct effect of EO on OP, the first hypothesis of the research was developed in order to show the effect of EO on OP (Figure 1). Moreover, according to the results of Wang (2008) and Real *et al.* (2014), the second hypothesis of the research in which OL has a mediating effect on the relationship between EO and OP, was developed (Figure 1).

Research Design, Statistical Population, and Data Collection

As explained earlier, various empirical studies have been conducted to investigate the relationships among the variables studied in the current research (that is, OP, EO and OL). In other words, the literature of the research was developed so that it can be used to test the research hypotheses on the causal relationships among the variables. Therefore, this research is not an exploratory research and it is primarily concerned with outcomes, generalization, prediction, and cause-effect relationships through deductive reasoning. In addition to this, since the variables studied in the current research can be measured accurately and numerically and the research method and design were structured and inflexible, a quantitative research design was used in this study. Accordingly, the present research was designed as a cross-sectional survey. The statistical population of the research comprised

all experts of West Azerbaijan AJO in Iran (N= 1,004). From this statistic, the number of experts selected for the survey as the sample group was 240 experts using the Bartlett *et al.* (2001) Table. The stratified random sampling method was used due to the heterogeneous characteristics of the target population among the counties of the province (such as having different clientele; the size of the organization in which experts were working; different geographic location of the organization, etc.) as well as disproportionate distribution of the experts across different counties. Therefore, based on population distribution, the total number of experts in West Azerbaijan province was divided into smaller groups (strata), and then from each stratum (that is, county), a random sample was taken with a proportional number of stratum size as compared to the target population. It is also worth mentioning that the questionnaires with missing information were excluded from the study upon completion of data collection. In more detail, from 240 collected questionnaires, 34 were excluded and, therefore, a total of 206 were considered for analysis.

Data were obtained through a structured questionnaire which was composed of four parts relating to the respondents' profiles, and questions related to measuring the OP, EO, and OL. A list of measured latent variables and the sources of each part is separately presented in Table 1. Respondents were asked to specify their opinion on each item, using a five-point Likert-type scale from 1 to 5 as follows: 1= Strongly disagree; 2= Disagree; 3= Neither agree nor disagree; 4= Agree; and 5=

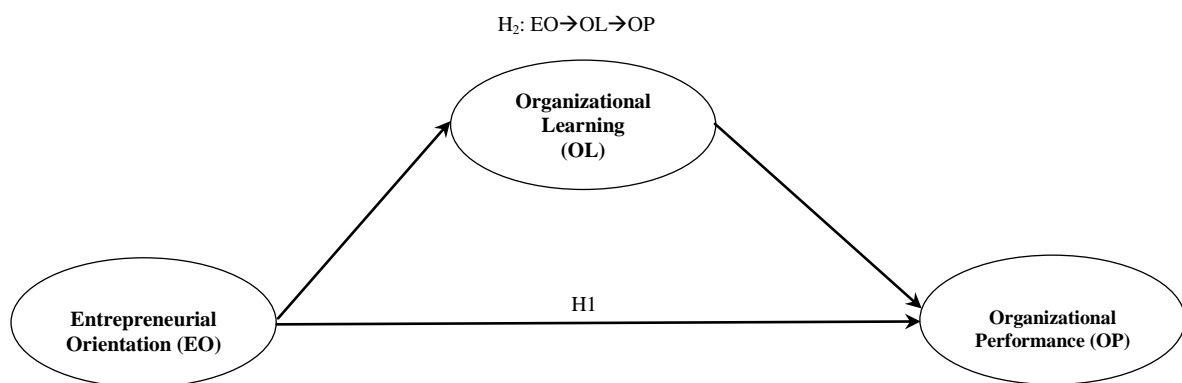


Figure 1. Research conceptual model and hypotheses.

**Table 1.** Constructs, latent variables, and reliability and validity tests.

Constructs	Latent variable s	Number of observed variables	AVE	CR	MSV	ASV
OP (Hersey and Goldsmith, 1980; Rezaei <i>et al.</i> , 2015)	Ability	4	0.573	0.840	0.221	0.184
	Clarity	3	0.514	0.759	0.281	0.242
	Help	5	0.519	0.809	0.187	0.141
	Incentive	4	0.538	0.778	0.325	0.292
	Evaluation	7	0.511	0.862	0.201	0.158
	Validity	5	0.566	0.713	0.111	0.089
	Environment	3	0.523	0.701	0.147	0.125
OL (Neeffe, 2001)	Shared vision	4	0.561	0.834	0.283	0.241
	Organizational culture	4	0.612	0.895	0.251	0.224
	Team learning	4	0.601	0.856	0.204	0.179
	Sharing of knowledge	4	0.508	0.791	0.146	0.123
	Systems thinking	4	0.529	0.801	0.101	0.081
	Leadership	5	0.542	0.822	0.321	0.285
	Employee capabilities	6	0.609	0.884	0.128	0.098
EO (Antoncic and Histrich, 2001; Rauch <i>et al.</i> , 2009)	Risk-taking	5	0.523	0.814	0.224	0.199
	Innovativeness	4	0.543	0.826	0.209	0.175
	Proactiveness	3	0.529	0.887	0.189	0.145
	Strategic renewal	7	0.508	0.877	0.142	0.112
Goodness-of-fit statistics: $\chi^2/df= 2.127$; $GFI= 0.875$; $RMR= 0.069$; $CFI= 0.954$; $IFI= 0.954$; $RMSEA= 0.074$						

Strongly agree. To examine the validity of the questionnaire, face and construct (that is, convergent and divergent) validity were explored. The face validity was confirmed by taking faculty members and experts suggestions. The convergent validity was examined through three different criteria: standardized factor loadings equal to or greater than 0.5, Average Variance Extracted (AVE) equal to or larger than 0.5, and Composite Reliability (CR) equal to or greater than 0.7 (Hair *et al.*, 2010). Furthermore, the discriminant validity was assessed based on the approach suggested by Hair *et al.* (2010); in a measurement model, each latent variable, AVE, should be higher than the Average shared Squared Variance (ASV) and the Maximum shared Squared Variance (MSV) among all latent variables. Apart from the validity of the instrument, CR was employed to check the reliability of the research tool, whose value for each latent variable must be greater than 0.7 (Hair *et al.*, 2010).

Concerning the fit of the models, the following indices were employed in this study: (1) The Chi-square test statistic was the most

fundamental measure of the overall fit, which was assumed to be of multivariate normality (Gerbing and Anderson, 1992). Since the Chi-square test is sensitive to sample size, the model would be assumed to demonstrate a reasonable fit if the statistic adjusted by its degrees of freedom (that is, the relative/normed Chi-square) did not exceed 3.0 (Kline, 2010); (2) The Root Mean square Residual (RMR) and the Root Mean Square Error of Approximation (RMSEA), in which being less than 0.08 means that it is within the acceptable level (Marcoulides and Schumacker, 1996; Chen, 2016), and (3) The Comparative Fit Index (CFI), Incremental Fit Index (IFI), Goodness-of-Fit Index (GFI), and Adjusted GFI (AGFI), where, the values higher than 0.90 are considered as acceptable fit (Bagozzi and Yi, 1988). It is also worth noting that, if the fit of a model is not adequate, as a common practice, the model is modified by deleting parameters that are not significant and adding parameters that improve the model fit (Hox and Bechger, 1998). To assist in this process, the most popular piece of information that is used is the Modification Index (MI), which provides an estimated value in which the

model's *Chi-square* (χ^2) test statistic would decrease if a fixed parameter is added to the model and freely estimated (Whittaker, 2012). In general, at each step, a parameter that produces the largest improvement in fit is freed, and this process is continued until an adequate fit is obtained (Hox and Bechger, 1998).

A two-step procedure in the SEM was used to test the research hypotheses. In the first step, the research measurement model was conducted to evaluate the fit of the research model and examine the validity and reliability of the constructs. In the second step, two structural models were estimated—direct model for testing the first hypothesis and mediation model for testing the second hypothesis (Anderson and Gerbing, 1988). In this regard, the bootstrapping method was employed for the mediation/ indirect hypotheses (Preacher and Hayes, 2008). Baron and Kenny (1986) argue that a critical starting point for mediation analysis is a significant relationship between independent and dependent variables. Therefore, in the first step, the total effect model or the direct model of the independent variable on the dependent variable is estimated. If this effect is significant, in the second step, the mediation effect model which includes the mediator variable, is estimated to test the significance of the indirect effect. If the indirect effect is significant, then the mediation hypothesis is supported (Hayes, 2013). Analysis of Moment Structure (AMOS) software version 20.0 was used to analyze the data and perform the SEM and bootstrapping method.

RESULTS

Measurement Models Estimation

The results of the full measurement model showed that the standardized loadings of all observed variables (with the exception of five, four and one observed variables in the constructs of OP, OL, and EO, respectively) were significant and greater than 0.5. Furthermore, the *AVE* and *CR* values were higher than 0.5 and 0.7 for all latent variables, respectively (Table 1). Accordingly, convergent validity and *CR* were confirmed. The *AVE* values were higher than those of

MSV and *ASV* in the measurement model, showing an acceptable discriminant validity (Table 1). As shown in Table 1, fit indices indicated values from very good to excellent and a good overall fit was found for the full measurement model.

Structural Models Estimation

In this section, the two structural models of the research— the direct model to test the first hypothesis and the mediation model to test the second hypothesis- were estimated.

Direct Structural Model

The direct structural model demonstrates direct relationship between the dependent variable of the research (OP) and the independent variable (EO). With regards to the fit of the model, the results revealed that the initial model did not have an acceptable goodness of fit based on the relative *Chi-square* (3.592), *GFI* (0.884) and *RMSEA* (0.112). Accordingly, *MI* was used to improve the fit of the model. On the basis of *MI*, an error covariance for the variables “Ability” and “Clarity” was added in the subsequent model analysis because it gave the largest decrease in the *Chi-square* value (*MI*= 70.351, *Par Change*= 0.320). As shown in Figure 2, the overall model fit significantly improved due to adding back the error covariance. The results obtained from estimating the direct structural model shown in Figure 2 indicate that EO explained approximately 45% of the variance in the variable OP.

As indicated in Table 2, the value of the critical ratio was higher than 1.96 for the variable EO. Therefore, this variable had a statistically significant positive relationship with the variable OP (*P*-value= 0.001, β = 0.673). Therefore, the hypothesis 1 was supported.

Mediation Structural Model

Given the significance of the relationship between EO and OP in the direct structural

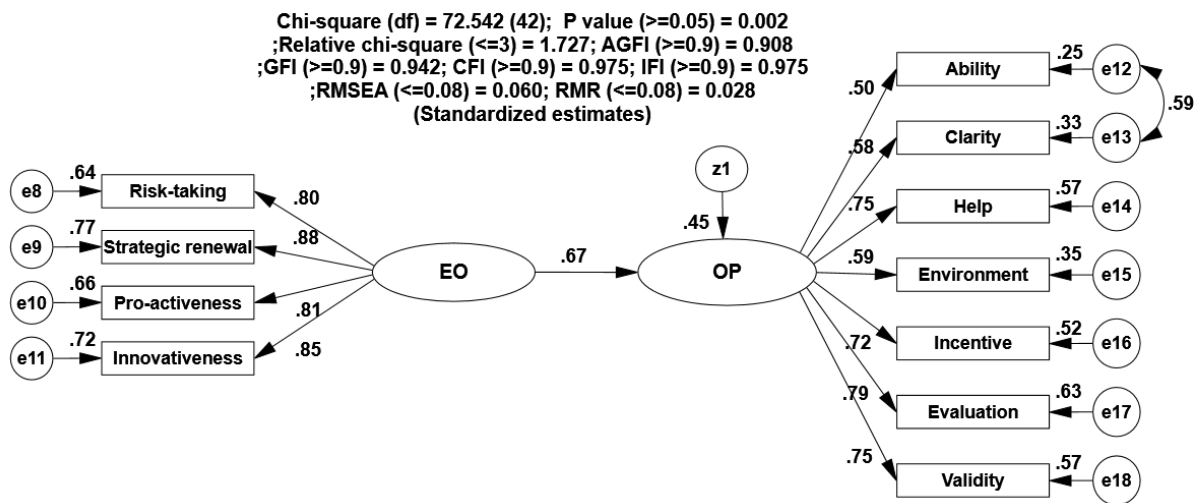


Figure 2. Direct structural model of EO and OP with standardized estimates.

Table 2. The results of estimating the direct structural model.

Relationship	Unstandardized estimates	SE	Standardized estimates	Critical ratio	Sig	Hypothesis test
EO→OP	0.527	0.095	0.673	5.551	0.001	Supported

model, in this section, the mediating effect of OL on the relationship between EO and OP was tested, using the bootstrapping method. The results revealed that, due to modifications made in the direct structural model (that is, adding back the error covariance for the variables “Ability” and “Clarity”), the overall fit of the mediation structural model was at an acceptable level based on the indices (Figure 3). According to the findings of the bootstrapping method, the sum of indirect effect of EO on OP through the variable OL was significant (P -value= 0.001, β = 0.422). Therefore, the hypothesis 2 was supported, which indicates the mediating effect of OL on the relationship between EO and OP (Table 3).

As shown in Figure 3, after the inclusion of the variable OL (as mediator variable) in the model, the predictive power of the model increased; the two variables: EO and OL can explain about 62% of the variance in OP,

which shows a 17% increase as compared to the direct structural model.

DISCUSSION

The results of this study showed that the hypothesis 1 was supported and EO had a significant and positive effect on OP. This finding is consistent with the results of Li *et al.* (2009), Al-Swidi and Al-Hosam (2012), Zhang and Zhang (2012), Hussain *et al.* (2015) and Rezaei *et al.* (2016). In this regard, Covin and Slevin (1989) and Hussain *et al.* (2015) argued that challenges posed by the external environment are reacted to by organizations acting entrepreneurially by adjusting their operations in dynamic competitive environments. Similarly, Ruiz-Ortega *et al.* (2013) argued that entrepreneurial help firms and organizations operating in high-growth

Table 3. The results of estimating mediation structural model.

Hypothesized relationship	Indirect standardized estimates	Indirect effect SE	Confidence Intervals		Two-tailed Sig (PC)	Hypothesis test
			Lower bounds (PC)	Upper bounds (PC)		
EO→OL→OP	0.422	0.088	0.269	0.613	0.001	Supported

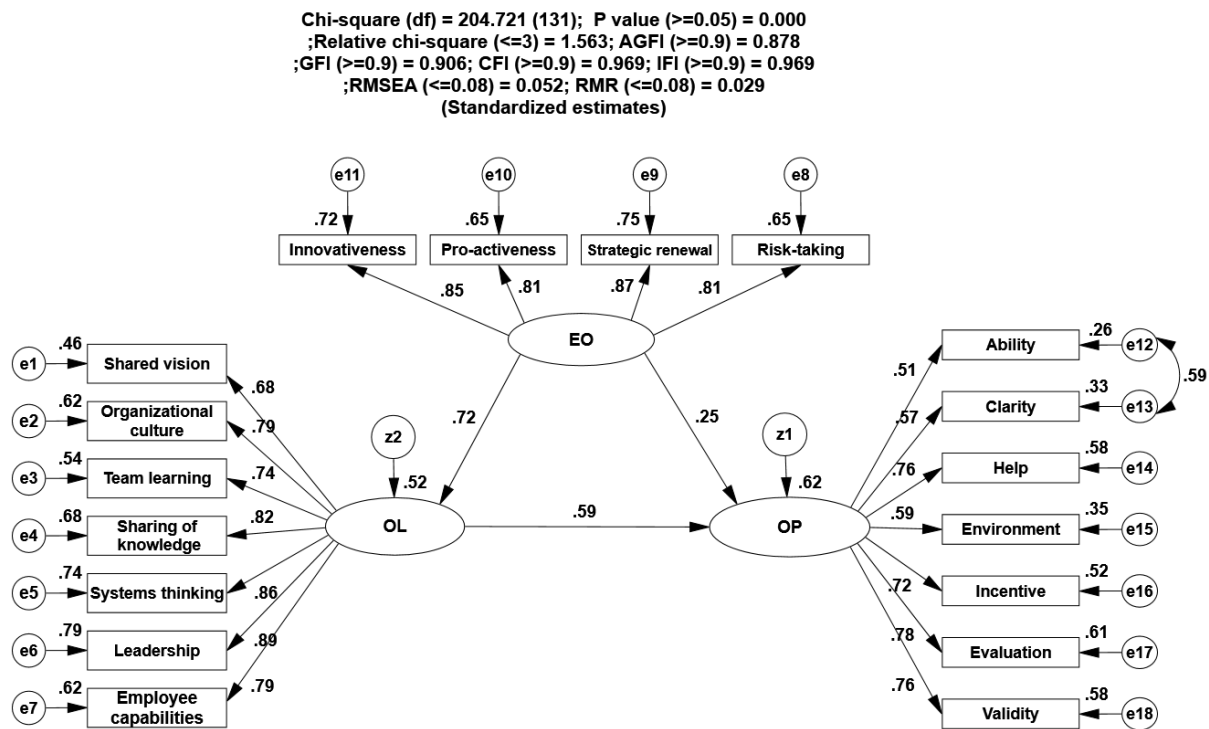


Figure 3. Mediation structural model with standardized estimates.

markets to better recognize and employ new opportunities in the environment and register new clients by altering present products and services and producing new ones. Moreover, EO helps organizations to configure their tangible capabilities differently to sustain competitiveness and increase their performance (Gnizy *et al.*, 2014). On the other hand, the core of the organization's success (such as AJO) is based on the satisfied and loyal clientele that can be achieved by providing innovative products and services (Al-Swidi and Al-Hosam, 2012). For this reason, EO, as the base of innovative environment formulation, is expected to maintain the organizational growth and performance (Lumpkin and Dess, 1996). Overall, Vasconcelos *et al.* (2016) asserted that organizations with a stronger EO are likely to achieve a higher performance and, consequently, success. Despite the importance of EO and its components in improving OP, the results of different studies show that the AJO faces various barriers such as structural, managerial, skill and educational, and environmental challenges to improve its EO.

Currently, the organization acts non-entrepreneurially in terms of different EO indices and it is far from ideal conditions (Yadollahi Farsi *et al.*, 2008; Amin Fanak, 2014). For example, managers and experts of the AJO have a low risk-taking spirit and are not able to recognize and exploit emerging opportunities in the environment. Due to bulky organizational structure, the AJO cannot adjust its organizational mission and vision in accordance with the needs and demands of the farmers, and it has a very low level of strategic renewal. Moreover, since the AJO is a governmental organization, the managers are not motivated to improve the competitive power of the organization. More importantly, the AJO is a conservative organization which has little innovation in the use of procedures and technologies to improve the quality of services. Overall, these situations have led to a low level of EO. This may reduce the performance of the organization (Amin Fanak, 2014).

Most notably, the results of the study indicated that the variable OL had a mediating effect on the relationship between EO and OP



(supporting hypothesis 2). This finding is consistent with the results of Wang (2008) and Real *et al.* (2014). According to the results of Dess *et al.* (2003), learning is one of the most important outcomes of corporate entrepreneurship activities in organizations. A broader perspective has been adopted by Wang (2008) who argued that, by abandoning traditional methods of conducting works or enabling flexibility and facilitating firms, EO may positively influence OL by inciting firms and organizations to shape their skills and capacities differently. By the way, entrepreneurial efforts are effective when a firm or an organization is committed to learning, flexible to new information, and facilitate shared interpretation of information (Slater and Narver, 1995). Therefore, OL can lead a firm or an organization to maximize the influence of EO on performance (Wang, 2008). This is in line with the study of Covin *et al.* (2006) who argued that the OL strategizing activities are essential to maximize the influence of EO on performance. Despite this, the results of empirical studies show that OL and its components in the AJO are not in a desirable situation (Mirakzadeh *et al.*, 2012; Amin Fanak, 2014; Rezaei *et al.*, 2016). In this regard, evidence suggests that the AJO is not sufficiently dynamic and does not adapt to changing environmental conditions. The employees and managers of the organization do not have a shared vision and mission. Moreover, the organizational culture in the AJO has some traits in which innovative ideas are less widely disseminated and supported in the organization. In the same vein, the employees have a very weak team working spirit and they do not share their knowledge, skills, and experiences with each other. Due to lack of adequate managerial support, the employees do not have enough opportunity to empower and develop their professional competencies. These situations have caused a low level of OL in the AJO and this in turn may reduce OP.

CONCLUSIONS

Overall, the findings of the current study showed that EO had statistically significant

positive effect on OP of West Azerbaijan AJO. Moreover, the results revealed that inclusion of OL in the model increased the robustness and explanatory power of the proposed framework for the prediction of OP. The most important contribution of this study was simultaneous investigation of the relationships among three variables: OP, OL, and EO and integrating them into a comprehensive model (Amin Fanak, 2014). This could extend the recent research trends in the field of investigating the relationship between EO and OP with a focus on understanding the effect of mediator variables. However, EO is an important variable that has effect on OP, as Rauch *et al.* (2009) asserted; there is considerable variation in the size of the reported relationships between EO and performance. Based on the results of this study, it can be concluded that a significant amount of this variation is due to not considering the intermediate links and the effect of mediator variables such as OL. Therefore, the findings of the study can provide convincing reasons for the low level of performance when organizations have a high level of EO, because OL may have been neglected in such organizations. According to the results of the study, the following suggestions are presented to improve EO and OL and, consequently, OP:

- Implementation of participatory management in the AJO
- Creating and introducing a shared vision in the AJO
- Facilitating team working in the AJO
- Empowering AJO experts and improving their knowledge, skills and professional capabilities
- Encouraging experts to create and suggest innovative ideas in the organization
- Improving the access of AJO experts to up-to-date knowledge and information by developing and strengthening the necessary technological infrastructure in the organization.

REFERENCES

1. Ahmadpour Daryani, M. and Karimi, A. 2017. Effect of Corporate Entrepreneurship on Firm

- Performance in Iranian ASMEs: The Mediation Role of Knowledge Creation and Learning Orientation. *J. Agr. Sci. Tech.*, **19**: 261-277.
2. Aktan, B. and Bulut, C. 2008. Financial Performance Impacts of Corporate Entrepreneurship in Emerging Markets: A Case of Turkey. *Eur. J. Econ. Financ Adm. Sci.*, **12**: 69-79.
 3. Alegre, J. and Chiva, A. 2013. Linking Entrepreneurial Orientation and Firm Performance: The Role of Organizational Learning Capability and Innovation Performance. *J. Small Bus. Manage.*, **51**: 491-507.
 4. Alipour, F., Khairuddin, I. and Karimi, R. 2011. Intrapreneurship in Learning Organizations: Moderating Role of Organizational Factors. *J. Am. Sci.*, **7**: 141-150.
 5. Al-Swidi, A. K. and Al-Hosam, A. 2012. The Effect of Entrepreneurial Orientation on the Organizational Performance: A Study on the Islamic Banks in Yemen Using the Partial Least Squares approach. *Arab. J. Busi. Manage. Rev.*, **2**: 73- 84.
 6. Amin Fanak, D. 2014. Study of Organizational Performance and Effect of Organizational Learning and Entrepreneurship Orientation on It. MSc. Thesis, Faculty of Agriculture, University of Zanjan, Iran (In Persian).
 7. Anderson, B. S., Kreiser, P. M., Kuratko, D. F., Hornsby, J. S. and Eshima, Y. 2015. Reconceptualizing Entrepreneurial Orientation. *Strategic Manage. J.*, **36**: 1579-1596.
 8. Anderson, J. C. and Gerbing, D. W. 1988. Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychol. B.*, **103**: 411-423.
 9. Antoncic, B. and Hisrich, R.D. 2001. Intrapreneurship: Construct Refinement and Cross-Cultural Validation. *J. Bus. Venturing*, **16**: 495- 527.
 10. Aponte, S. P. D. and Zapata, D. I. C. 2013. A Model of Organizational Learning in Practice. *Estudios Gerenciales*, **29**: 439-444.
 11. Arshad, A. S., Rasli, A., Arshad, A. A. and Zain, Z. M. 2014. The Impact of Entrepreneurial Orientation on Business Performance: A Study of Technology-Based SMEs in Malaysia. *Procedia Soc. Behav. Sci.*, **130**: 46-53.
 12. Bagozzi, R. P. and Yi, Y. 1988. On the Evaluation of Structural Equation Models. *J. Acad. Market. Sci.*, **16**: 74-94.
 13. Baron, R. and Kenny, D. 1986. The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *J. Pers. Soc. Psychol.*, **51**: 1173-1182.
 14. Bartlett, J.E., Kotrlik, J.W. and Higgins, C.C. 2001. Organizational research: Determining appropriation sample size in survey research. *Int. Technol. Learn. Perform. J.*, **19**: 43-50.
 15. Benoit, C.A. and Mackenzie, K. D. 1994. A Model of Organizational Learning and the Diagnostic Process Supporting It. *Learn. Organ.*, **1**: 26-37.
 16. Chaston, I., Badger, B. and Sadler-Smith, E. 1999. Organizational Learning: Research Issues and Applications in SME Sector Firms. *Int. J. Entrep. Behav. Res.*, **5**: 191–203.
 17. Chen, M. F. 2016. Extending the Theory of Planned Behavior Model to Explain People's Energy Savings and Carbon Rreduction Behavioral Intentions to Mitigate Climate Change in Taiwan-Moral Obligation Matters. *J. Clean. Prod.*, **112**: 1746-1753.
 18. Choi, S. B. and Williams, C. 2016. Entrepreneurial Orientation and Performance: Mediating Effects of Technology and Marketing Action across Industry Types. *Ind. Innov.*, **23**: 673-693.
 19. Covin, J. G. and Slevin, D. P. 1989. Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Manage. J.*, **10**: 75-87.
 20. Covin, J. G. and Slevin, D. P. 1991. A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrep. Theory Pract.*, **16**: 7-26.
 21. Covin, J. G., Green, K. M. and Slevin, D. P. 2006. Strategic Process Effects on the Entrepreneurial Orientation–Sales Growth Rate Relationship. *Entrep. Theory Pract.*, **30**: 57-81.
 22. Crucke, S. and Decramer, A. 2016. The Development of a Measurement Instrument for the Organizational Performance of Social Enterprises. *J. Sust.*, **8**: 161-189.
 23. Dess, G. G. and Lumpkin, G. T. 2005. Research Edge: The Role of Entrepreneurial Orientation in Stimulating Effective Corporate Entrepreneurship. *Acad. Manage. Exec.*, **19**:147–156.
 24. Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S.W., Janney, J. J. and Lane, P. J. 2003. Emerging Issues in Corporate Entrepreneurship. *J. Manage.*, **29**: 351-378.
 25. Entrialgo, M., Fernandez, E. and Vazquez, C.J. 2000. Linking Entrepreneurship and Strategic



- Management: Evidence from Spanish SMEs. *Technovation*, **20**: 427-436.
26. Gephart, M. A., Marsick, V. J., Van Buren, M. E., Spiro, M. S. and Senge, P. 1996. Learning Organizations Come Alive. *Training Dev.*, **50**: 34-46.
27. Gerbing, D. W. and Anderson, J. C. 1992. Monte Carlo Evaluations of Goodness of Fit Indices for Structural Equation Models. *Soc. Method Res.*, **21**:132-160.
28. Gholami, M. H., Nazari Asli, M., Nazari-Shirkouhi, S. and Noruz, A. 2013. Investigating the Influence of Knowledge Management Practices on Organizational Performance: An Empirical Study. *Acta Polytech. Hung.*, **10**: 205- 216.
29. Gnizy, I., Baker, W. E. and Grinstein, A. 2014. Proactive Learning Culture. A Dynamic Capability and Key Success Factor for SMEs Entering Foreign Markets. *Int. Market. Rev.*, **31**:477-505.
30. Haghshenas Kashani, F. and Shahsavarani, H. 2015. The Impact of Participative Management on the Performance of Tehran Regional Water Company's Staff. *J. Appl. Environ. Biol. Sci.*, **5**: 63-70.
31. Hair, J. F., Black, W. C., Babin, J. and Anderson, R. E. 2010. *Multivariate Data Analysis*. Prentice Hall Publisher, USA.
32. Hamel, G. and Prahalad, C. K. 1991. Corporate Imagination and Expeditionary Marketing. *Harvard Bus. Rev.*, **69**: 81-92.
33. Hayes, A. F 2013. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. Gilford Press, New York.
34. Hersey, P. and Goldsmith, M. 1980. A Situational Approach to Performance Planning. *Train. Dev. J.*, **34**: 38-44.
35. Hisrich, R. D., Peters, M. P. and Shepherd, D. A. 2005. *Entrepreneurship*. Sixth Edition, McGraw-Hill Publisher, New York.
36. Hox, J. J. and Bechger, T. M. 1998. An Introduction to Structural Equation Modelling. *Fam. Sci. Rev.*, **11**: 354-373.
37. Hult, G. T. M., Hurley, R. F. and Knight, G. A. 2004. Innovativeness: Its Antecedents and Impact on Business Performance. *Ind. Market. Manage.*, **33**:429-438.
38. Hussain, J., Khan, A. and Ali Shah, F. 2015. The Impacts of Entrepreneurial Orientation on Organizational Performance: Study of Pakistani SMEs. *J. Manage. Sci.*, **1**: 52-64.
39. Joseph, K. E. and Dai, C. 2009. The Influence of Organizational Culture on Organizational Learning, Worker Involvement and Worker Productivity. *Int. J. Bus. Manage.*, **4**: 243-250.
40. Kaplan, R. S. and Norton, D. P. 1996. *Translating Strategy into Action: The Balanced Scorecard*. Harvard Business School Press, Boston.
41. Kline, R. B. 2010. *Principles and Practice of Structural Equation Modeling*. Guilford Publisher, USA.
42. Li, Y. H., Huang, J. W. and Tsai, M. T. 2009. Entrepreneurial Orientation and Firm Performance: The Role of Knowledge Creation Process. *Ind. Market. Manage.*, **38**: 440-449.
43. Lumpkin, G. T. and Dess, G. G. 2001. Linking Two Dimensions of Entrepreneurial Orientation to Firm Performance: The Moderating Role of Environment and Industry Life Cycle. *J. Bus. Venturing*, **16**:429-451.
44. Lumpkin, G. T. and Dess, G. G. 1996. Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *Acad. Manage. Rev.*, **21**: 135-172.
45. Marcoulides, G. A. and Schumacker, R.E. 1996. *Advanced Structural Equation Modeling: Issues and Techniques*. First Edition, Psychology Press, New York.
46. Mirakzadeh, A., Shiri, N., Allahveisi, M. A. and Karami Darabkhani, R. 2012. Role of Social Capital on Organizational Learning (OL) of Jihad-e-Agriculture Organization's Staffs in Kurdistan Province. *Iran. J. Agr. Econ. Dev. Res.*, **43**: 447-459. (in Persian)
47. Moghadami, Z. 2015. Study of Factors Affecting Organizational Effectiveness in Jihad-e- Agriculture Organization of Qazvin. MSc. Thesis, Faculty of Agriculture, University of Zanjan, Iran. (in Persian)
48. Mohammadi, A. and Karami, H. 2013. A Multi Attribute Decision Making Model for UAST Faculty Members' Performance Appraisal. *Tech. J. Eng. Appl. Sci.*, **3**: 1743-1755.
49. Nazem, F., Mozaiini, M. and Seifi, A. 2014. The Structural Model of Performance Based on the Empowerment of University Staff. *B. Environ. Pharmacol. Life Sci.*, **3**: 95-101.
50. Neeffe, D. O. 2001. Comparing Level of Organizational Learning Maturity of Colleges and Universities Participating Traditional and Non-Traditional Accreditation Processes. MSc. Thesis, University of Wisconsin.
51. Preacher, K. J. and Hayes, A. F. 2008. Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in

- Multiple Mediator Models. *Behav. Res. Methods*, **40**: 879-891.
52. Rasula, J., Bosilj Vuksic, V. and Indihar Stemberger, M. 2012. The Impact of Knowledge Management on Organizational Performance. *Econ. Bus. Rev.*, **14**: 147-168.
 53. Rauch, A., Wiklund, J., Lumpkin, G. T. and Frese, M. 2009. Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future. *Entrep. Theory Pract.*, **33**: 761-787.
 54. Real, J. C., Leal, A. and Roldán, J. L. 2006. Information Technology as a Determinant of Organizational Learning and Technological Distinctive Competencies. *Ind. Market. Manage.*, **35**: 505-521.
 55. Real, J. C., Roldán, J. L. and Leal, A. 2014. From Entrepreneurial Orientation and Learning Orientation to Business Performance: Analyzing the Mediating Role of Organizational Learning and the Moderating Effects of Organizational Size. *Brit. J. Manage.*, **25**: 186-208.
 56. Rezaei, R., Amin Fnak, D. and Badsar, M. 2016. Relationship of Organizational Learning and Entrepreneurial Orientation in the Governmental Organizations (The Case of Jihad-e-Agriculture Organization). *Iran. Agr. Exten. Educ. J.*, **12**: 107-121. (in Persian)
 57. Rezaei, R., Karimi, A., Mangeli, N. and Safa, L. 2017. Effect of Entrepreneurial Orientation and Marketing Capabilities on Greenhouse Businesses Performance in Jiroft County Iran. *J. Agr. Sci. Tech.*, **19**: 771-783.
 58. Rezaei, R., Salahi Moghadam, N. and Shabanali Fami, H. 2015. The Effect of Knowledge Management on Organizational Performance of Jihad-e-Agriculture Organization in Alborz Province. *Agr. Exten. Educ. Res.*, **7**: 77-91. (in Persian)
 59. Romero-Martínez, A. M., Fernández-Rodríguez, Z. and Vázquez-Inchausti, E. 2010. Exploring Corporate Entrepreneurship in Privatized Firms. *J. World Bus.*, **45**: 2-8.
 60. Ruiz-Ortega, M. J., Parra-Requena, G., Rodrigo-Alarcon, J. and Garcia-Villaverde, P. M. 2013. Environmental Dynamism and Entrepreneurial orientation: The Moderating Role of Firm's Capabilities. *J. Organ. Change Manage.*, **26**: 475-493.
 61. Salahi Moghadam, N. 2014. Mediating Role of Social Capital in Relationship between Knowledge Management and Organizational Performance in the Jihad-e-Agriculture Organization of the Alborz Province. MSc. Thesis, Faculty of Agriculture, University of Zanjan, Iran. (in Persian)
 62. Sarfarazi, M., Balaghi Inalo, A. and Rouhi Khalili, M. 2012. Investigating Factors of the Performance of the Hormozgan Judiciary Staff Influencing Client Satisfaction Using the ARCHIVE Model. *J. Am. Sci.*, **8**: 864-872.
 63. Senge, P., Kleiner, A., Roberts, C., Ross, R. and Smith, B. 1994. *The Fifth Discipline Field Book*. Doubleday, New York.
 64. Shirokova, G., Bogatyreva, K., Beliaeva, T. and Puffer, S. 2016. Entrepreneurial Orientation and Firm Performance in Different Environmental Settings: Contingency and Configurational Approaches. *J. Small Bus. Enterp. Dev.*, **23**: 703-727.
 65. Slater S.F. and Narver J.C. 1995. Market Orientation and the Learning Organization. *J. Market.*, **59**: 63-74.
 66. Suliyanto, S. and Rahab, R. 2012. The Role of Market Orientation and Learning Orientation in Improving Innovativeness and Performance of Small and Medium Enterprises. *Asian Soc. Sci.*, **8**: 134-145.
 67. Vasconcelos, V., Silveira, A. and Santino Bizarrias, F. 2016. The Relations between Entrepreneurial Orientation, Organizational Learning and Organizational Performance of Small Enterprises. *Int. J. Prof. Bus. Rev.*, **1**: 1-14.
 68. Wang, C. L. 2008. Entrepreneurial Orientation, Learning Orientation, and Firm Performance. *Entrep. Theory Pract.*, **32**: 635-656.
 69. Whittaker, T. A. 2012. Using the Modification Index and Standardized Expected Parameter Change for Model Modification. *J. Exp. Educ.*, **80**: 26-44.
 70. Wiklund, J. and Shepherd, D. 2005. Entrepreneurial Orientation (EO) and Small Business Performance: A Configurational Approach. *J. Bus. Venturing*, **20**: 71-91.
 71. Yadollahi Farsi, J., Jan Nesari, S. A. and Zamani, M. 2008. An Investigation of Organizational Entrepreneurship in Government Organizations (Case study in Khuzestan Province). *J. Entrep. Dev.*, **1**: 171-206. (in Persian).
 72. Zahra S. A., Ireland R. D., Gutierrez I. and Hitt, M.A. 2000. Privatization and Entrepreneurial Transformation: Emerging Issues and a Future Research Agenda. *Acad. Manage. Rev.*, **25**: 509-524.
 73. Zahra, S. A. 1993. Environment, Corporate Entrepreneurship, and Financial Performance:



- A Taxonomic Approach. *J. Bus. Venturing*, 8: 319-340.
74. Zhang, Y. and Zhang, X. 2012. The Effect of Entrepreneurial Orientation on Business Performance: A Role of Network Capabilities in China. *J. Chin. Entrep.*, 4:132-142.

اثر میانجی یادگیری سازمانی در رابطه بین گرایش کارآفرینانه و عملکرد سازمانی در سازمان جهاد کشاورزی استان آذربایجان غربی، ایران

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چکیده

هدف اصلی این تحقیق بررسی اثر میانجی یادگیری سازمانی در رابطه بین گرایش کارآفرینانه و عملکرد سازمانی بود. جامعه آماری این تحقیق را تمامی کارشناسان سازمان جهاد کشاورزی استان آذربایجان غربی در شمالغرب ایران تشکیل دادند ($N=1004$). بر اساس جدول بارتلت و همکاران (2001)، تعداد 240 نفر از کارشناسان با استفاده از روش نمونه‌گیری تصادفی طبقه‌ای انتخاب شد. برای گردآوری داده‌ها از پرسشنامه ساختارمند استفاده شده و داده‌ها با استفاده از تکنیک چند متغیره مدل-سازی معادلات ساختاری مورد تجزیه و تحلیل قرار گرفت. نتایج تحقیق نشان داد که گرایش کارآفرینانه از نظر آماری اثر مثبت معنی‌داری بر عملکرد سازمانی داشت ($p\text{-value}=0/000$ ، $\beta=0/660$) و در حدود 44 درصد از واریانس آن را تبیین کرد. همچنین، متغیر یادگیری سازمانی از اثر میانجی در رابطه بین عملکرد سازمانی و گرایش کارآفرینانه برخوردار بود. پس از وارد کردن یادگیری سازمانی به عنوان متغیر میانجی در مدل، قدرت پیش‌بینی مدل تا 17 درصد افزایش یافت. بر اساس نتایج این تحقیق می‌توان نتیجه گرفت، ضروری است که سازمان جهاد کشاورزی به منظور بیشینه کردن تأثیر گرایش کارآفرینانه بر عملکرد سازمانی، یادگیری سازمانی و مؤلفه‌های آن را تقویت نماید.

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