

The Role of the Strategic Intelligence and the Entrepreneurial Behavior in the Organizational Development

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CHRONICLE **Abstract**

Article history:
Received: 04/07/2017
Received in revised:
08/18/2017
Accepted: 10/11/2017

Keywords:
* Intelligence
* Strategic
intelligence
* Organization
development
* Entrepreneurial
behavior

Internal forces such as managers with strategic intelligence and staff with entrepreneurial behaviour have forced organizations to constantly monitor their surrounding environment in order to create an awareness of opportunities and threats to allow them to survive in the competitive environment. Therefore, the main purpose of this paper is to investigate the relationship between strategic intelligence and organizational development with intermediation of entrepreneurial behavior and moderator role of demographic characteristics in public organizations in Iran (Office of Cooperatives Labor and Social Welfare). To fulfill the purpose of this study 274 staff were selected from among a total number of 480 population based on stratified sampling through Cochran formula. Descriptive and inferential statistics were obtained using SPSS 22 software and Lisrel8.5. The results confirmed that there was a positive significant relationship between SI-OD; SI-EB and EB-OD. However, the moderator variables including demographic characteristics had no effect on SI - OD and SI-EB relations. Only gender had effect on SI-EB relationship. Finally, the research conceptual model was verified after removing specific components of dimensions.

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Introduction

Organizations continuously have to maintain their competitiveness capability in order to survive and grow in an extensively changing and challenging environment. Their ability of keeping pace with the competition is directly proportional to their flexibility,

management efficacy and open mindedness to change and innovation (Karakaya and Yilmaz, 2013). Entrepreneurial orientation (EO) has experienced a boom in recent years, both in its theoretical development and its empirical application, thus giving rise to a vast body of knowledge. Many of the

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efforts center on analyzing the consequences of adopting EO, and emphasize its effect on business performance (Vega et al., 2016). Entrepreneurship is essential to ensure the survival of organizations by restructuring operations, redefining the concept of business, increasing the capacity of innovation and quality requirements in a dynamic environment (Moghimi and Ramadan, 2011). Tham & Kim (2002) stated strategic intelligence can be viewed as what a company needs to know of its business environment to enable it to gain insight into its present processes, anticipate and manage change for the future, design appropriate strategies that will create business value for customers, and improve profitability in current and new markets (Pellissier & Kruger, 2011). Strategic intelligence is necessary to change conditions and to address challenges from the environment. It is also necessary for adaptation of the organization's plans to a dynamic and evolving context (Acros, 2015). To compete globally organizations are required to stay a step ahead of their competitors. Consequently, a number of strategic decisions will have to be made in order to remain competitive in the foreseeable future. The utilisation of strategic intelligence during the strategic management process could identify opportunities, and challenges faced and compete successfully against local and international competitors (Pellissier & Kruger, 2011).

Strategy decisions occur at different levels such as enterprise, corporate, business and functional levels (Carroll and Buchholtz, 2014). The field of organization development (OD) was founded to provide "a set of techniques and strategies for changing, developing, and enhancing the functioning of organizations—especially the internal human features of the organization"

(Glover, 2012). The field of social entrepreneurship has a similar objective. Typically, entrepreneurs seek to help organizations address and create opportunities to achieve their social purpose. The intended outcome is to "help companies to reduce costs, gain resources, expand markets, and develop new products and practices more quickly" (Cummings and Worley, 2008). Throughout the existing entrepreneurship literature there is a strong view that openness is a good quality for entrepreneurs to have (among other personality determinants important in entrepreneurship), especially during the phase of firm performance, development, and growth. Business practitioners, too, agree that entrepreneurs who successfully grow and develop their firms are those who are more open (Slavec et al., 2016).

Most important internal factors that lead an organization to development are managers and staff. The results specify the importance of human resources in organization development and also point that managers by developing their strategic intelligence features can improve the entrepreneurial behaviour of individuals and decision-making processes to create a competitive advantage and constant innovation that will bring progress and organizational development. Internal forces such as managers with strategic intelligence and staff with entrepreneurial behavior force organizations to constantly monitor their surrounding environment in order to create an awareness of opportunities and threats to allow them to survive in their competitive environment. Many studies demonstrate a positive association between strategic orientation and performance outcomes, while others have failed to find a positive relationship (Frese et al, 2009, Zhou et al. 2005) leading to the conclusions, that strategic orientation does not automatically lead to performance (Mu et al., 2017).

It is believed that business intelligence increases the effectiveness of managerial decision-making, and therefore leads to greater competitive advantage (Pellissier & Kruger, 2011). Considering that the results of various studies point on the importance of positive effectiveness of internal factors (characteristics of managers and employees such as intelligence and entrepreneurial behaviour) on organization's development and growth, but still no comprehensive study have been implemented in this regard, this study aims to present a new model. Given that, environmental conditions for all organizations and companies are the same so all of them can use this model to gain competitive advantage and opportunity by improving the internal factors (strategic intelligence and entrepreneurial behaviour of managers and staff) for the development and survival

Literature Review

Strategic Intelligence

The results of past studies indicate that, intelligence has a large impact on efficiency and effectiveness of the organization (Azma & Mostafa Pour, 2012). Intelligence refers to a talent for establishing the exact and real model of oneself, and the ability of using that profitable model during the life. One type of intelligences is strategic intelligence (SI) which indicates evaluation of changes in competitive strategy within the specified time (Abdullah, 2012). Liebowitz (2006) stated SI consists of the aggregation of the various types of intelligentsia, which creates a synergy between business intelligence, competitive intelligence, and knowledge management to provide value-added information and knowledge toward making organizational strategic decisions.

The emphasis is on how best to position the organization to deal with future challenges and opportunities to maximise the organization's success (Pellissier & Kruger, 2011) Knowledge and information are vital components in creating wealth for organizations. Knowledge and intelligence that make SI, will allow organizations to generate competitive advantage and constant innovation to survive and prosper in the long term (Laudon & Laudon 2007). Mainstream literature described strategic intelligence as the collection, processing, analysis, and dissemination of information that has high strategic relevance (Kuosa, 2011). Consequence of strategic intelligence is strategic leadership. Strategic leadership is a process of influencing the favourable prospects for success used by leaders; however, it has impact on organizational culture, resources allocation, guidance through policy and consensus on the vague and unreliable complex global environment (Abdullah, 2012). Sun Tzu's facet of intelligence relates to a leader's ability to (a) consider problems systematically, (b) understand the business environment, (c) be flexible, (d) not follow conventional rules, (d) be analytic, and (e) not oppose change but foster it (Guichard, 2011). Maccoby (2011) stated Strategic intelligence is a system that consists of several dimensions that are essential to create clearer image about the future; these dimensions can be summarized as per by the following dimensions: Foresight, Visioning, Motivation (Agha et al, 2014). In short, Strategic Intelligence can be defined as "*a systematic and continuous process of*

producing needed intelligence of strategic value in an actionable form to facilitate long-term decision making". Users of SI are primarily individuals involved in strategy development. Additionally, a SI time horizon is broad and the focus is on all significant events: past, present and future events (GIA, 2004). The majority of these intelligence facets align with the Sternberg (2004) and the Wilhelm and Engle (2004) models of intelligence. A unique facet to the Winston and Patterson definition of intelligence is —possesses a learning agility for self-knowledge. They described self-directedness of an individual as a set of personal characteristics that involves cognition and affection. Table 1 represents these blended intelligence facets (Guichard, 2011)

Table 1. The Three Main Interpretations of Intelligence

Sternberg (2004)	Wilhelm and Engle (2004)	Winston and Patterson (2006)
Analytical thinking ability	Problem solving	Think deeply, logically, and analytically
Creative thinking ability	Critical thinking	Critical thinking skills
Practical intelligence (tacit knowledge)	Situational judgment	Think strategically
	Practical intelligence (basic knowledge)	Think creatively
		Learn from failure
		Possess a learning agility for self-knowledge

Organization Development (OD)

Organization development is a new term, which means a conceptual of organization-wide effort to increase an organization's effectiveness and viability by building competitive advantages (Shatreovich, 2014). While there are multiple definitions of OD, Richard Bekhard's definition of OD is widely accepted as the most relevant definition even in today's context. Terms such as planned change, usage of behavioural science and social science knowledge, consulting process, organization-wide changes in structure, process, and culture, values and principles, organizational health and effectiveness; are closely associated with OD.

Beer (1980) stated the aims of OD are: (1) enhancing congruence between organizational structure, process, strategy, people and culture; (2) developing new and creative organizational solutions; and (3) developing the organization's self-renewal capacity (Gohil and Deshpande, 2014). One of the most effective tools for organizational development practitioners to understand and evaluate organizational issues is the questionnaire-based survey. An organizational survey serves as an effective tool for feedback and positive change. The elements in Weisbord's model are similar to those of other diagnostic models, such as Nadler and Tushman (1977), Tichy (1983) and Burke and Litwin (1992). Weisbord's (1976) organizational diagnosis model based on formal or informal activities has six dimensions: purpose, structure, relationship, rewards, leadership and helpful mechanisms (Lok and Crawford, 2000).

The Weisbord's model is used in this study because it is relatively uncomplicated as compared to others, easy to understand and visualize by clients, reflects the essential activities and key variables in an organization, and has been successfully implemented to assist clients in their change programs (Preziosi, 1980; Burke, 1991). For the purpose dimension, the two most important elements are goal clarity (the extent to which organization members are clear about the organization's purpose and mission) and goal agreement (whether people support the organization's purpose). For the structure dimension, the primary question is whether there is an adequate fit between purpose and internal structure that is supposed to serve the purpose. The dimension of relationship, investigates the relationship between individuals or departments that perform different tasks, and between people and the nature and requirements of their jobs. The reward dimension measures employees level of satisfaction with the rewards (the compensation package, incentive systems and the like) offered by the organization. The helpful mechanism dimension refers to all the processes that every organization must attend to it in order to survive: planning, control, budgeting, and other information systems that meet organizational objectives. The core of this model, "Leadership", is essential for the success of an organization and used to maintain and support other components in the model. The development of Weisbord's instrument has 30 items that measure six dimensions contained in the model. Preziosi's (1980) questionnaire used the same items appearing in

Weisbord's model, together with five more items used to measure an additional factor, "attitude to change". Preziosi argues that in any attempt of a planned change in an organization, it is necessary to know how changeable an organization is (Lok and Crawford, 2000).

Entrepreneurial Behaviour (EB)

According to Mair (2002), entrepreneurial behaviour within existing organizations is "A set of activities and practices by which individuals at multiple levels, autonomously generate and use innovative resource combinations to identify and pursue opportunities". There are two main research streams on the factors that stimulate or constrain corporate entrepreneurship and entrepreneurial behaviour. The first stream places the organization in the centre and the second stream focuses on the individual (Kuratko et al., 2004). Pearce et al. (1975) to assess entrepreneurial behaviour used the selected scale (or model) was initially applied in the private sector and encompasses four facets: strategic vision, creation of an energetic working environment, change orientation and the ability to cut red tape. Gardner (1994) argued that entrepreneurial behaviour is based on vision and focuses on innovation. Vision is central for motivation, firm performance, strategy, resource management, commitment and organizational pace-setting (Leonidas and Vassilis, 2007). A study done by Leonidas and Vassilis (2007) presented the theoretical model, which was assessed during their survey with Greek front liners. The specific variables are:

1. The supportive context towards entrepreneurial behaviour. The

supportive context is a multidimensional construct that encompasses freedom to adopt initiatives, access to resources and information, and socio-political support (Kuratko et al., 2004; Mair, 2002).

2. Personal and job characteristics. Public servants may differ in terms of the display of entrepreneurial behaviour according to gender, education, service record, job title and position.

According to Kuratko et al. (2004), management support refers to the willingness of managers to facilitate and promote entrepreneurial activity in the organization. This support may take many forms, including the championing of innovative ideas, providing the necessary resources or expertise. Managers immediately control and evaluate the work of their subordinates, broaden or limit their access to resources and information, clarify goals and roles of individual employees, consult their ideas and influence their work by many other means (Lukes, 2012).

Set of research in the field of SI, OD and EB is shown in the table 2. This study considers new variables and relationships not studied in previous researches

Material and Methods

Given the importance of human resources, this study aims to investigate and identify the impact of the strategic intelligence outcome as individual characteristics of managers, who are the main founders and ideologists in the organizations, on their entrepreneurial behavior. Strategic

intelligence is among critical factors for grasping opportunities in difficult and critical situations, and it is considered as a competitive advantage for organizations and development. Previous studies investigated several factors which affected entrepreneurship, but they rarely studied top-level decision-makers' characteristics and their impact on organizational development and entrepreneurship in organizations. Therefore, this research considered demographic factors such as age, gender, educational level, and work experience, which were derived from individual situations and evolution over time, as moderators of relationships.

This research used three models as follows: 1. Guichard's strategic intelligence (2011), which uses creativity and innovation, emotional intelligence, knowledge and insight and practical intelligence components (which are all based on personal characteristics), is applied to measure strategic intelligence. 2. Lok and Crawford's model (2000), which consists of purpose, leadership, relationships, rewards, structure, willingness to change, and assistance components (which are based on organizational features and conditions), is used to measure organizational development; and 3. Leonidas and Vassilis's model (2007), which consists of strategic vision, orientation towards change, energetic workplace, and supportive field components (which are based both on personal and organizational characteristics), is applied to assess entrepreneurial behavior in the organization.

Table 2. Research Background

Researches	Year	Result
Vega et al.	2016	Demonstrate the utility of entrepreneurial openness in explaining firm's performance and development.
Esmacili	2014	The strategic intelligence has a positive and meaningful effect on the strategic decision making and strategic planning. In addition, the effective factors on the strategic intelligence were recognized as follows: human resource intelligence, organizational process, technological, informational, financial resources, competitor, and customer intelligence.
Agha et al.	2014	The firms enjoy to use the ability of strategic intelligence dimensions, (foresight, visioning, and motivation) in facing future complications, directing business and encouraging employees to contribute to decision making and bear on responsibilities. There are significant positive impacts of strategic intelligence on firm performance and strategic flexibility.
Kim & Slater	2013	strategic orientation is crucial factor to understanding NPD and performance of firms
Lorenzo et al.	2012	The causes of entrepreneurial behaviours are influenced by the organization's knowledge, motivation and organizational environment.
Lukes	2012	Company management could start changing organizational culture in the direction of innovations and set up systems that encourage employees to behave in a more entrepreneurial manner
Glover	2012	Verified overlapping principles of social entrepreneurship and organization development.
Zehir et al	2011	There is a positive association between strategic orientation and performance outcomes (both financial and employee performance).
Kumar et al.	2011	Strategic orientations including market and entrepreneurial orientations. Although strategic orientation can be a crucial determinant of firm performance.
Pellissier & Kruger	2011	SI provides value by engaging managers in the strategy development process, by assisting management to forge better, fact-based decisions, and to qualify strategic choices and articulate strategies. This can lead to the sharpening of internal performance monitoring and in conclusion, can lead to competitive advantage and innovation.

Researches	Year	Result
Analoui et al.	2010	Attention to 8 parameters related to manager's efficacy parameters is an important part of organization development process. These 8 parameters are knowledge and wisdom, perception, skills (problem-solving), classification, organizational communication, motivation, the demands and limitations and existence of choices and opportunities for effectiveness.
Arabi & Pirmorad	2010	Emphasis on the central role of leadership in the survival and development of the organization and organizational behaviour.
Arasti & Jokar	2009	Men and women in terms of entrepreneurship and business strategies are different.
Leonidas & Vassilis	2007	They expected female employees and employees with academic degree to score higher than male employees and employees without an academic degree. Nevertheless, no statistically significant differences were found.
Rasmussen & Sorheim	2006	Individual expectations and perceptions of the environment effect on the entrepreneurial characteristics of students and thus effect on entrepreneurial behaviour

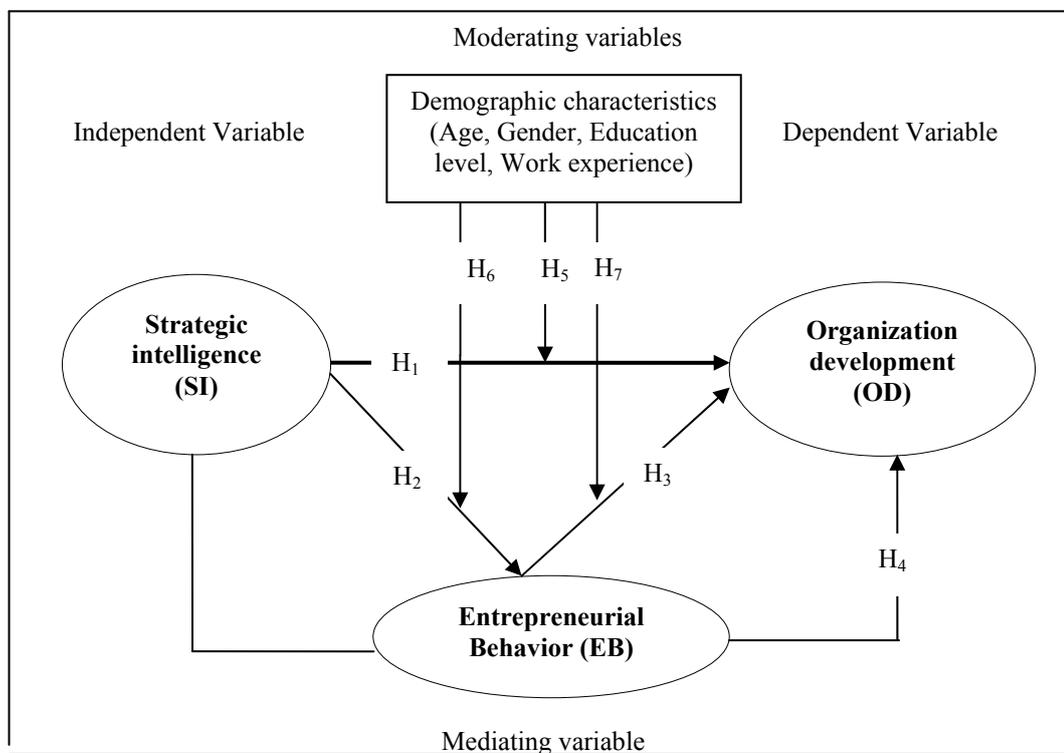


Fig.1. Research conceptual model

So, with respect to the research theoretical model ,
Table 3 will present the hypotheses of the research:

Table 3. The research hypotheses

Hypothesis	Description
H ₁	Strategic intelligence has a significant and positive effect on organization development.
H ₂	Strategic intelligence has a significant and positive effect on entrepreneurial behavior.
H ₃	Entrepreneurial behavior has a significant and positive effect on organization development.
H ₄	Entrepreneurial behavior has mediating role on the effectiveness of strategic intelligence and organizational development relationship.
H ₅	Demographic characteristics have significant and positive moderating role on effectiveness of strategic intelligence and organizational development relationship.
H ₆	Demographic characteristics have significant and positive moderating role on effectiveness of strategic intelligence and entrepreneurial behaviour relationship.
H ₇	Demographic characteristics have significant and positive moderating role on effectiveness of entrepreneurial behaviour and organization development relationship.

Table 4. Descriptive Statistics and Factor Analysis

Latent variables	Observed Variables	Factor loadings (FL) >0.4	CA >0.7	0<KMO <1	Mean	Std. Deviation
SI Guichard (2011)	SI ₁ Creativity &- innovation	0.47	0.84	0.839	3.029	.65108
	SI ₂ Emotional Intelligence	0.66				
	SI ₃ Knowledge &- wisdom	0.87				
	SI ₄ Practical intelligence	0.88				
OD Lok and Crawford (2000)	OD ₁ Purpose	0.78	0.83	0.777	3.192	.50917
	OD ₂ Leadership	0.88				
	OD ₃ Relationships	0.88				
	OD ₄ Rewards	0.78				
	OD ₅ Structure	0.31				
	OD ₆ Helpful	0.34				
	OD ₇ Attitude to change	0.38				
EB Leonidas and Vasilis (2007)	EB ₁ Strategic vision	0.74	0.84	0.865	3.024	.63474
	EB ₂ Change orientation	0.77				
	EB ₃ Energetic working environment	0.84				
	EB ₄ Supportive context	0.72				

Methodology in this study was descriptive and correlational. This study was conducted with the branches of Office of Cooperatives Labor and Social Welfare in Mazandaran as a government organization. To develop and improve responsiveness and customer satisfaction, it is essential to evaluate the designed model in this study to examine the strategic intelligence and entrepreneurial behavior in the organization. Office of Cooperatives Labor and Social Welfare has 18 branches in Mazandaran. By Cochran formula, 274 staff were selected from among a total number of 480 population based on stratified sampling. The data collection tools consisted of three standard questionnaires based on Likert scale (1. Strongly Agree; 2. Agree; 3. Undecided; 4. Disagree; 5. Strongly Disagree). By using them the relationship between identified variables of research was examined. In this research, we used structural equation modeling (it shows: 1. The relationship of latent variables. 2. The relationship of observed variables and latent variables) for measuring the latent variables by two or more observed variables to find out how they are influenced by latent variables and errors. We used SPSS 22 and Lisrel 8.5 software for analysis.

Content and congruent validity of the questionnaires were examined by KMO and Cronbach's alpha (CA) test. The results of these tests are shown in table 4.

According to the results of KMO and alpha tests, questionnaires have data sufficiency, because KMO was over 0.7 and is close to 1, and CA was over the standard number (0.7). Therefore questionnaires have high reliability. Whereas the FL between all latent and observed variables were over 0.4. Measurement models (representing the components of latent variables) is confirmed, so data is suitable for factor analysis implementation.

Data Analysis

The descriptive statistics is used to analyse demographic characteristics that are intended as moderation variables. In Table 5, the details of the questionnaires are shown.

As Shown in Table 5, 64.7% of participants were males, 43.1% of participants were 40 years old and over, 66% of participants had BS, 78.4% of participants were expert and 41.8% of participants had more than 15 years of work experience.

Kolmogorov-Smirnov test is used to determine the normality of variables. The Durbin-Watson Statistic is used to test for the presence of serial correlation among the residuals. The value ranges of the Durbin-Watson statistic is from 0 to 4. As a general rule of thumb, the residuals are uncorrelated. Durbin-Watson statistic is approximately 2. A value close to 0 indicates strong positive correlation, while a value of 4 indicates strong negative correlation.

Table 5. Describe the demographic characteristics

Specifications	Groups	Frequency Distribution	Percent (%)
Gender	Female	97	35.3
	Male	177	64.7
Age	30 years old and less	52	19
	30-40 years old	104	37.9
	40 years old and over	118	43.1
Education Level	BS	178	66
	MA	96	32
Organization level	Expert	213	78.4
	responsible	61	21.6
Work Experience	5 years	59	21.6
	5-15 years	101	36.6
	Over 15 years	114	41.8

Table 6. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
FOD	.063	274	.200*	.983	274	.051
FSI	.054	274	.200*	.990	274	.363
FBE	.097	274	.101	.973	274	.104

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

As shown, the significance levels of organization development, strategic intelligence and entrepreneurial behavior were more than 0.05. Therefore, data has normal distribution.

Table 7. The result of multiple regressions

Hypothesis	Result of Durbin-Watson test	Type analysis	Standardized coefficient (β)	T-Statistics	Significant level.	Result
H ₁	2.045	Multiple Regression	0.75	5.87	0.00	Verified
H ₂	1.973	Multiple Regression	0.82	7.80	0.00	Verified
H ₃	1.757	Multiple Regression	0.58	2.94	0.00	Verified

According to the test results, the value of Durbin-Watson for latent variables was approximately equal to 2, that indicating no serial correlation. T-Statistics was more than $|1.96|$, so SI-OD; SI-EB and EB-OD had significant relationship. In addition, based on β , organization development (dependent variable) equal to 0.75 was under the influence of strategic intelligence (independent variable); entrepreneurial behavior (dependent variable) equal to 0.82 was under the influence of strategic intelligence (independent variable). Organization development (dependent variable) equal to 0.58 was under the influence of entrepreneurial behavior (independent variable). Finally, according to table 7, H_1 ; H_2 and H_3 are verified in the certainty level of 95%.

H_4 : In H_1 , EB was considered as dependent variable and in H_3 it was considered as independent variable. To determine the

severity of the indirect effect through the mediating variable (EB) $0 < VAF < 1$ statistics is used. When VAF is close to 1, the effect of mediating role will get stronger. In fact, VAF measures the proportion of indirect effect on total. In 8, the mediating variable (EB) in the model is investigated.

Table 8. Investigating the mediating variable

	Direct relationship	Indirect relationship	VAF
SI- -- OD	0.75	$0.82 \times 0.58 = 0.47$	$\frac{0.47}{0.47 + 0.75} = 0.38$

It means that 38% of strategic intelligence effectiveness on organization development was determined by entrepreneurial behaviour as the mediator. Therefore H_4 is verified.

Table 9. The results of significant moderating effect by demographic characteristic

Hypothesis	Causal relationships	Moderating test	Results
	SI Gender Sig= 0.003	SI → OD	There is no Significant moderating effect
	Gender OD Sig= 0.478		
	SI Education level Sig= 0.131	SI → OD	There is no Significant moderating effect
	Education level OD Sig= 0.977		
	SI Age Sig= 0.66	SI → OD	There is no Significant moderating effect
	Age OD Sig= 0.85		
	SI work experience Sig= 0.71	SI → OD	There is no Significant moderating effect



H₆	SI → Gender Sig= 0.003	SI → EB	There is Significant moderating effect	
	Gender → EB Sig= 0.017			
	SI → Education level Sig= 0.131	SI → EB		There is no Significant moderating effect
	Education level → EB Sig= 0.226			
SI → Age Sig = 0.66	SI → EB	There is no Significant moderating effect		
Age → EB Sig= 0.375				
SI → work experience Sig= 0.71	SI → EB	There is no Significant moderating effect		
work experience → EB Sig= 0.237				
H₇	EB → Gender Sig= 0.122	EB → OD	There is no Significant moderating effect	
	Gender → OD Sig= 0.391			
	EB → Education level Sig= 0.007	EB → OD	There is no Significant moderating effect	
	Education level → OD Sig= 0.181			
	EB → Age Sig: 0.612	EB → OD	There is no Significant moderating effect	
	Age → OD Sig= 0.091			
EB → work experience Sig= 0.082	EB → OD	There is no Significant moderating effect		
work experience → OD Sig= 0.361				

As shown in the table 9, the significance value of all variables was more than 0.05 that indicates there is no significant moderating effect on SI - OD relationship and SI - EB relationship, except gender that has significance moderating effect on the relationship of strategic intelligence and entrepreneurial behaviour.

The independent samples test indicated that men and women has different level of strategic intelligence and entrepreneurial behaviour

Table 10. Mean strategic intelligence and entrepreneurial behaviour differentiated by gender

Variables	Gender	Frequently Distribution	The mean
SI	Male	319	2.7722
	Female	174	2.4753
EB	Male	319	2.6263
	Female	174	2.3449

As shown in the table 10, the mean of strategic intelligence and entrepreneurial behaviour is higher in men than in women.

Structural Equation Model

This model consists of measurement and structural models. The relationships between the variables (both measured and latent) are shown in the measurement model. Only the relationships between the latent variables are shown in the structural model. At first, we used KMO and Bartlett's test of Sphericity to diagnose if variables are suitable for confirmatory factor analysis.

Table 11: KMO and Bartlett's Test of SI, OD and EB

Variables	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity Approx. Chi-Square	Df	Sig.
SI	.839	1.335E3	253	.000
OD	.777	1.952E3	561	.000
EB	.865	703.946	55	.000

Based on the results of table 11, the KMO for all variables was more than 0.7 (close to 1) The Sig. value for Bartlett's Tests of Sphericity led us to reject the null hypothesis and conclude that there are correlations in the data set (homoscedasticity) that are appropriate for factor analysis

Structural Model

It was used to relate all of the variables (both latent and observed). In order to test the research model, measurement and structural models are examined by LISREL 8.5. The results are shown in Figures 3 and 4.

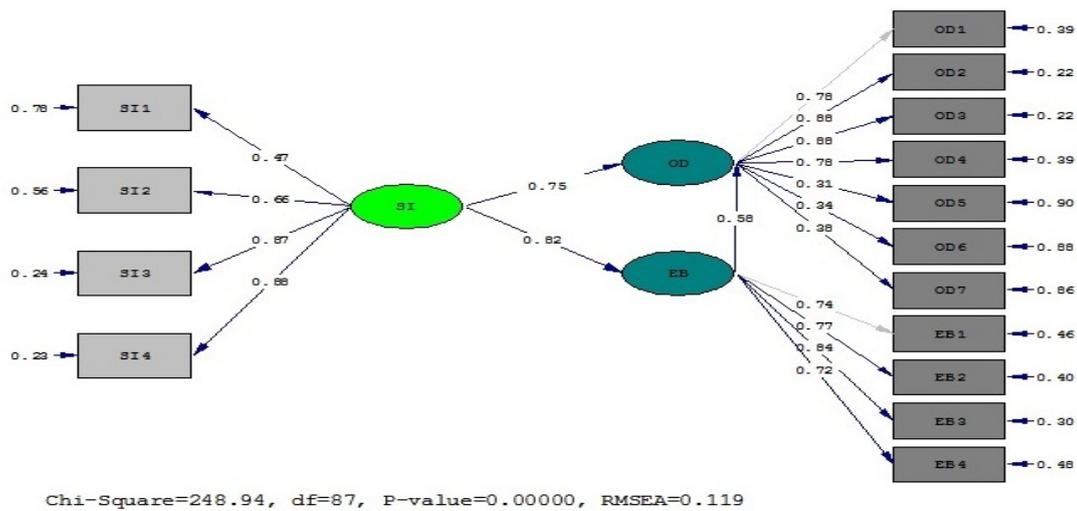


Fig. 2. Structural Model in Standardized Solution Mode

Note: SI, OD3 and BE1 deleted, because factor loadings were lower than 0.4

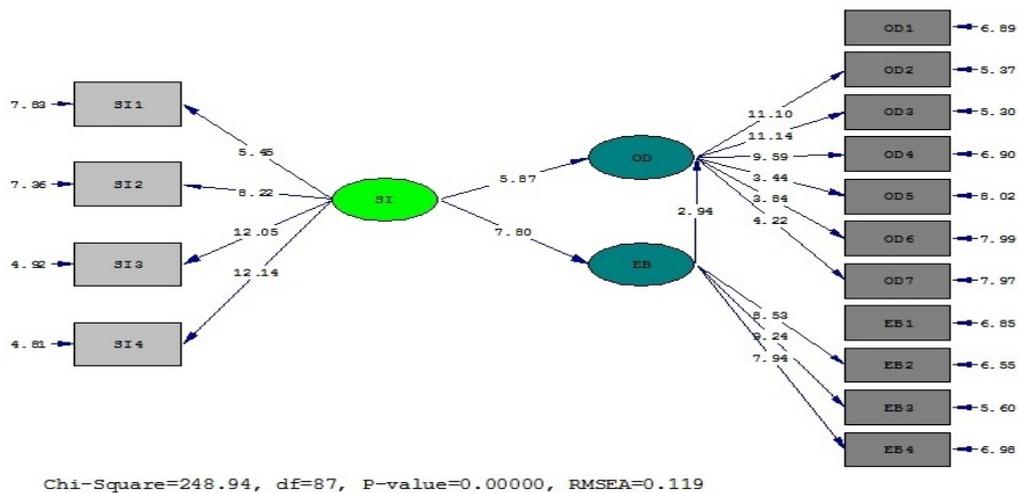


Fig. 3. Structural model in t-values mode

The standard values with the values of the research model fitness are presented in Table 12.

Table 12. Measures of research model fitness

Fit indices	RMSEA	CFI	AGFI	GFI	SRMR	Chi-square	df	P-value
Standard values	< 0.05	> 0.9	> 0.9	> 0.9	>0.05	----	---	---
Research values	0.119	0.92	0.72	0.80	0.10	248.94	87	0.000

According to the results that are presented in Table 12, the validity and fitting of the research model are confirmed since the index values are higher than the required standard values.

Discussion and Conclusion

In this research, we identified impact of strategic intelligence outcome on organizational development considering entrepreneurial behaviour as a mediator and studied moderating factors of demographic variables as personal factors, which could modify main relationships in research. According to the results of this research, strategic intelligence had the highest effect (with effect intensity of 0.82) on entrepreneurial behavior in the organization, and then on organizational development. In general, the mediating role of entrepreneurial behavior was confirmed according to present study. Results of this research are presented as follows:

1. We confirmed the impact of the managers' strategic intelligence (with an effect intensity of 0.75) on organizational development. Based on the results of the analytical research model, practical intelligence (with factor loading of 0.88) and knowledge and insight (with factor loading of 0.87) had almost the same high relationship with the strategic intelligence. Analouei et al. (2010) also confirmed that insight and problem solving skill (practical intelligence) had the greatest relationship with strategic intelligence in managers who had positive efficiency in organizational development. Results of the research prove that managers should have high strategic intelligence for proper identification and selection of organizational strategic path which ensures organizational growth and development (Zehir et al., 2011). Strategically intelligent managers

significantly affect organizational growth and development through strategic decision making and planning (Esmaeili, 2014). Other researchers such as Glover (2012), Arabi and Pirmorad (2010), Kim & Slater (2013), and Agha et al. (2014) emphasized positive impact of strategic intelligence and managers' strategic orientation ability on organizational development and performance.

2. We confirmed the effect of the managers' strategic intelligence (with effect intensity of 0.82) on entrepreneurial behavior in the organization. According to the analytical research model, the energetic workplace, tendency, and orientation towards change, utilization of strategic perspective, and existence of supportive fields in the organization have respectively the highest and the lowest relationship with entrepreneurial behavior.

Zwiling (2011) introduced eight types of intelligence, which directly influenced formation of entrepreneurial behavior in organizations including practical intelligence (with a factor loading of 0.88) and emotional intelligence (with a factor loading of 0.66) which were approved in this study as major components of strategic intelligence. Stenberg (2004) proposed practical intelligence based on implicit intelligence according to individual experience and learning as well as personal and cognitive knowledge. Wilhelm and Engel (2004) introduced a practical intelligence based on individual knowledge and insight. Winston & Patterson (2006) proposed strategic thinking and learning from failure, which require a dynamic and energetic environment, and organizational space and employees' willingness to change, as combined aspects of intelligence. Slavec et al. (2016) concludes that an open entrepreneurial perspective has

relationship with knowledge and information. According to Lorenzo et al. (2012), an energetic and stimulating workplace as well as organizational learning positively affects entrepreneurial behavior. Other researchers such as Pellissier & Kruger (2011) and Lukes (2012) also confirmed positive impact of managers' strategic intelligence and strategic decision making on creation of innovation and entrepreneurship conditions.

3. We confirmed the impact of the entrepreneurial behavior (with an impact intensity of 0.58) on organizational development. According to Rasmussen & Sorheim (2006), the individual perception of organizational environment and conditions of organization significantly influence their entrepreneurship. Based on the results of the analytical model in this research, leadership and relationships (with a factor loading of 0.88), purpose and reward (with a factor loading of 0.78), and then sub-components namely the willingness to change (with a factor loading of 0.31), assistance (with a factor loading of 0.34) had the highest and the lowest relationship with organizational development.

Based on the study results we can conclude that entrepreneurial behavior such as willingness to change, the ability to make risky and innovative decisions in complex situations based on organizational goals and structure and strategic vision lead to organizational development and growth (Antoncic, 2010; Saeed et al, 2014). Organizations also should have features such as creative and intelligent leadership, organizational structure based on freedom of action, informal and organic nature, organizational learning, encouragement for innovation, and enduring failure of widespread internal communication systems, and elimination

of individual communication barriers, and individual and financial support to develop entrepreneurship process and achieve organizational development and progress in organizations (Moghimi, 2004).

4. Positive and effective role of mediating entrepreneurial behavior was confirmed according to the results of the measured direct and indirect effects of the relationships. According to the research conducted by Mendel (2015) at the Canadian government research institute, and results of research by Poorkiai & Rahmatian (2013), Linton & Kask (2016), and Shokat abadi (2017), strategic intelligence helps top-level managers to make informed and risky decisions, innovate, and ensure success and growth of organization in difficult conditions by evaluating internal and external information of organization and predicting opportunities and challenges in the future.
5. The results of the present research confirm the mediating role of gender, among all demographic variables, in the relationship between strategic intelligence and entrepreneurial behavior, but mediating roles of other demographic variables are rejected in relationships. Few studies on demographic characteristics also indicate that there is a difference between men and women (Arasti & Jokar, 2009). Leonidas & Vassilis (2007) expected that female employees and those with higher educational degrees would have higher entrepreneurship behavior than male employees and those with lower educational degrees, but the results of the studies did not confirm any difference

According to this test, the mean of strategic intelligence and entrepreneurial behavior is higher in men than in women. However, there is no relationship between strategic intelligence and entrepreneurial

behavior and educational level, work experience and age. The reasons for this difference can be explained as follows:

1. The number of the men was (frequency =64.7) more than that of the women
2. The inner sense of women's tendency to be more socialized into organizational norms than men
3. The lack of venturing and courage of women employees in the expression and implementation of creativity, innovation and entrepreneurial behavior, which could be due to the lack of confidence, their past experience, fear of being ridiculed and rejected by managers and the lack of support from managers in government organizations of Iran
4. Managers' high intimacy with male employees (because all managers were men) and male employees' comfortable feeling while giving feedback to the top manager, and giving additional support to male employees than female employees by male management in governmental organizations of Iran.

Suggestions

Based on the research results, the following suggestions are provided to improve strategic intelligence, develop entrepreneurship behavior, and achieve organizational development in organizations:

- ✓ Organizations and institutions should strengthen their managers' strategic intelligence through training. Managers can also enhance strategic intelligence by improving business intelligence, competitive intelligence, and knowledge management systems in organizations.
- ✓ Organizational processes should be simple and understandable, and feedback needs to be quick and informative in organizations.

- ✓ Managers should be trained how to support innovative ideas in the organization, and direct supervisors should support employees.
- ✓ It is necessary to encourage creativity by top-level managers through modifying or improving reward and supportive systems in organizations.
- ✓ It is necessary to create appropriate platform and environment for thinking, interacting and sharing experiences to enhance practical intelligence in organizations.
- ✓ It is necessary to strengthen teamwork in order to increase communications, dialogue, creativity, and assistance.
- ✓ It is necessary to design a workplace wherein the organizational movement towards learning organization is strengthened to improve organizational space and structure and increase willingness to change in individuals and organizations.
- ✓ Given the disapproved mediating roles of demographic variables, managers are suggested not to consider demographic features as the main criteria in recruitment.
- ✓ Managers are suggested recruiting people with incentives, but unready, for entrepreneurship.

Limitations

Given that any research has limitations, the present research is not an exception and its limitations are as follows:

1. This research studied only a governmental organization; hence, generalization of its results to other organizations should be done with caution.
2. This research did not study environmental conditions of organization in terms of dynamism, number of competitors, and extent of their activities at the social level.
3. It did not consider the field of organizational activity.

4. It only studied the effects of demographic variables on strategic intelligence and entrepreneurial behavior.

Recommendations

1. Due to the non-generalizability of the research results, further studies on other public and private organizations are recommended.
2. It is recommended conducting studies on effects of organizational and environmental variables such as governmental policies, organizational learning, organizational culture, knowledge management, and data analysis systems on strategic intelligence.
3. It is recommended for the future studies to investigate the effects of dimensions of all components on each other in a wider model.

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