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The impact of globalization of small and medium-sized enterprises on innovation with the mediating role of market orientation and entrepreneurship

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ABSTRACT

The aim of this study is to investigate impacts of small and medium enterprises on innovation globalization with the mediating role of market orientation and entrepreneurship. The method of this research is applied in terms of purpose and descriptive in terms of data analysis. The statistical population of this article includes managers, experts and supervisors of small and medium food companies in Tehran, 136 people were identified by random sampling method and based on Morgan and Karajsi table. Also, the data collection tool in this research is a questionnaire. In this study, inferential statistics using SPSS and PLS software were used to analyze the data obtained from the questionnaire. The results show that the increase in globalization will be accompanied by an increase in the innovation of small and medium enterprises. Also, the increase in entrepreneurship and market orientation will be accompanied by an increase in the innovation of small and medium food companies. In order to achieve organizational excellence and the best performance in small and medium enterprises, attention to entrepreneurship, market orientation and innovation is inevitable. There is a significant correlation between these factors and they form part of the management system. Therefore, for small and medium-sized international companies, MO and EO are the two main pillars for better innovation performance.
Key words: Globalization, Small and Medium Enterprises, Innovation, Marketing, Entrepreneurship

Introduction

Due to globalization and increasing market competitiveness, companies move towards enhanced innovation in operations for achieving a sustainable competitive advantage. In the near future, creativity and innovation capabilities will be the vital factors in creating and maintaining a competitive advantage, particularly for the firms present at the changing market environment (Rahmani & Rezaei, 2015). In addition to the benefits of market expansion, internationalization leads to effective learning. In other words, implementation of international activities allows acquiring diverse skills and competencies through observation and transfer of knowledge and experience among enterprises, allowing effective learning and

innovation (Banerjee et al, 2015). Moreover, due to the internationalization and entering foreign markets, taking advantages of new opportunities in market will be provided. Internationalization provokes enterprises to increase their skills at exploring and exploiting new opportunities, and as getting experienced, the degree of uncertainty d for future endeavors, and the entrepreneurship skills and abilities for managing uncertainty of enterprises will improve. In fact, international firms are more confident because of more experience and less uncertainty about new risks and initiatives; thus, they move towards entrepreneurial orientation (Ciravegna et all, 2014). Entrepreneurial orientation is a process that builds new ways to develop and commercialize new products, to move towards new markets and to provide new services to customers and ultimately the best use of new opportunities will be allowed (Gholami & Birjandi, 2016). Entrepreneurial orientation directs the company to continuous innovation, helps the company to position itself in the market and enables it to take risky investments (Shirokova et al, 2016). However, internationalization plays a significant role in market orientation. Due to the internationalization, enterprises undergo more competition. Business units encounter more competitors in foreign markets than domestic markets. As a result, they need to compete with more companies to attract foreign customers and gain more market share. This requires market-orientation for satisfying customer needs and competing. In addition, in the process of internationalization, companies develop marketing oriented strategies to meet customer needs as they gain new experiences and knowledge and get informed of foreign customers (Kuster &Vila, 2011).

Entrepreneurship and establishment of small and medium-sized businesses as the driving force of economic and social development take a fundamental role in the process of community development. Since the impact of small and medium-sized businesses on the economic growth of countries cannot be denied, countries undertake long-term policies and plans as well as create incentives and conditions to employ the productive potential of small and medium-sized businesses for sustainable growth.

This article aims at investigating the impact of globalization of small and medium-sized enterprises on innovation with the mediating role of market orientation and entrepreneurship. After reviewing the theoretical foundations, the method, findings, conclusion, and recommendations are discussed, respectively.

Theoretical Foundations and Research Background

Globalization

Ronald Robertson categorizes globalization as "special and general globalization" because the macro aspects of life cross local aspects (i.e. individual aspects); thus, the self (individual identity) and national societies meet humanity (as a whole) and the world system of societies. This is how Anthony Giddens defined globalization as "the expansion of social and economic relations around the world". In a global system, many aspects of people's lives are affected by organizations and social networks that are located too far away. In such situation, the world must be considered as a unit system. Globalization can be defined as a "process of increasing involvement in international activities." Many studies on globalization have introduced theories and models of globalization that are classified as the following (Khodadad Hosseini & Khodami, 2010):

Plc (product life cycle) model: In this model, firms become global when their products reach maturity.

Globalization Process Model (Uppsala Model): Globalization is a step-by-step and gradual process.

INV (International New Ventures) model: According to this model, the nature of the product, industry norms, and managers and entrepreneurs' tendencies are the main and determining factor in the globalization of a firm.

Global Birth Model: This model is fully opposite of process models. It argues that some companies are global from birth and do not necessarily go through the stages of globalization.

Exchange Cost Theory: This theory only focuses on the explanatory variable of exchange costs to explain a firm's globalization.

Eclectic theory: This theory explains globalization using two factors of internal and situational advantage.

PLC_3D Theory: According to this model, the process of globalization takes place in three dimensions.

1. Depth: How much of the value chain activity is globalized.

2. Distance: The extent to which the firm has entered distant markets during the process of globalization.

3. Diversity: As firms employ diverse methods to enter global markets, the level of globalization will be high.

Contrary to Johnson and Wellney's traditional perspective, there are some scholars who introduced the process model of globalization and discussed it from learning and evolutionary perspective. The main difference between this model and the traditional one is that the Uppsala model describes firms' globalization as a process, while the traditional view has a cross-sectional and local view. Globalization is a growing and evolving process due to the knowledge that companies gain as they enter new countries. The Uppsala model is a cycle of experiential learning and commitment that leads to the growing evolution of the company's international development. The main structure of the Uppsala model is presented by distinguishing between fixed and variable aspects of globalization variables. The variable aspects include resource allocation decisions and current activities. Fixed aspects include commitment and knowledge of foreign operations and markets. The model is based on the idea that market knowledge and commitment influence both specialized decisions and the way of implementing current decisions, resulting in changing the knowledge and commitment of the knowledge (Khodadad Hosseini & Khodami, 2010).

Importance and role of small and medium-sized businesses

A brief look at the structure of the economic system of countries provide information about the importance and position of small and medium-sized enterprises. Regarding the importance, it is sufficient to say that there are at least 2.3 million small and medium-sized enterprises in Germany, with a 20 million staff that is 70% of the total number of employees in the country. There are about 25 million small and medium-sized enterprises in the United States, hiring more than 50% of the private sector workforce. These firms alone account for half of the US gross domestic product, and 96% of the country's total exports (Islamic Consultative Assembly Research Center, 2014).

Such enterprises have unique functions due to their special features:

- They are more flexible about higher level of entrepreneurship, creativity and innovation. They are capable to easily adapt to rapid environmental changes and respond more quickly to environmental components such as economic, social, technological, political, and legal factors. It is interesting to note that more than 55% of innovations and inventions registered in the United States occur in small and medium-sized enterprises.
- They attract, employ, and train a large part of the population and skilled labor. In Germany, for example, 80% of the workforce is first recruited into small and medium-sized industries and acquires the necessary training and professional skills, so that the industries has changed to workshops for students to acquire technical and professional skills.
- The supply of specialized manpower for large firms is often done by small and medium-sized companies. However, this is one of the current problems of such enterprises because after getting experienced in small and medium-sized companies, specialized people are often employed by larger and more appealing industries.
- Since small and medium-sized enterprises can provide jobs with less capital compared to large industries, the number of jobs created by them is more than large companies.
- Recruitment and acceptance of employees with special conditions is done more easily. They have been able to provide employment opportunities for young people, the elderly, women, part-time employees and even people with disabilities.
- In such enterprises, it is easy to gather interdepartmental groups or working groups with a combination of different specialists without the need for planning and extensive changes in the structure.
- The cost of leaving the industry is lower than large firms, so the small and medium-sized enterprise draw attention and countries try to use the advantage by studying their obstacles and problems (Khalili, 2017).

For example, in some countries, small and medium-sized enterprises are classified into three general categories as follows:

1. Production sector (agriculture, industry and mining), enterprises with less than 50 staff
2. Commercial sector (wholesale, retail), enterprises with less than 30 employees
3. Service sector, enterprises with less than 50 employees

Innovation

Innovation is an activity of shaping the future and applying new knowledge and concepts in order to grow, maintain the competitive position and empower the organization to cope with the changing future. Innovation is a process of identifying new concepts and ideas in the market through new products, new processes and new services to create new values. In short, the concept of innovation includes novation and creation of ideas, implementation and commercialization. In order to manage and measure the organizational innovation, appropriate indicators should be selected from various dimensions. Clanton argues that innovation and organizational social capital are highly interdependent; organizations with a strong propensity for innovation have social capital (Chen et al, 2009).

Innovation means leaving the old patterns. It is the most important capability for organizational growth and expansion (Zheng, 2008). Nowadays, innovation is increasingly considered as one of the main factors for maintaining the competitive advantage and the long-term success of the organization in competitive markets. This is because organizations with the capacity to innovate will be able to respond to environmental challenges faster and better than non-innovative organizations, which in turn improves the efficiency of the organization. Hence, understanding how to manage innovation is definitely important so that Drucker says "either innovation or death" (Ortt et al, 2008).

Achieving innovation is not an accident and every organization must pursue it as part of its strategy (Zawislak et al, 2013). Therefore, innovation capability can be considered as a systematic organizational commitment. Innovation capability forms a key mechanism for self-renewal within the organization and its products. So, it is the ability to continuously transfer knowledge and ideas to new products, processes and systems, which is beneficial for the company and its shareholders. Moreover, the organizations implementing innovation well will recognize that all issues from the core value system to daily actions and behaviors are overshadowed by innovation (Lawson & Samson, 2001). An organization's innovation capability can be deemed as a talent for manufactring products and creative processes (Yliherva, 2004).

Innovation takes various types: technological, marketing, executive and strategic. Technological innovations are introduced to make changes in a product, process or service. Marketing innovations include introducing a new brand, obtain a new market and new sale techniques. Executive innovations relate to changes in the structure of the organization or executive processes, and strategic innovations emphasize the criteria for a lasting competitive advantage and renewing competitive rules. According to Gomings and Paramita, the larger an organization, the more efficient and effective it is, but younger companies are more innovative. However, researchers report that small and medium-sized manufacturing companies are more likely to raise awareness about innovation. It is also said that the age of the organization is generally positively related to its performance (here company size refers to the total number of employees). Small and medium-sized manufacturing companies with foreign investment demonstrated a better sale performance. Competition in an international environment challenges the company to be more creative and innovative, because innovation is the key to maintain competitive. Globalization is a daunting task for some small and medium-sized enterprises that lack sufficient manpower, financial resources, language skills, and an international perspective. Furthermore, strategic features and competitive factors directly affect organizational innovation (Lin & Chen, 2007).

Market orientation

The success of today's enterprises and firms depends on identification of more and more customers and competitors and other factors affecting the market. Customer needs and demands are constantly varying and company will succeed only if it recognizes the changes. On the other hand, competitors are also looking to attract more customers. Also, changes in market conditions and governing rules, such as technological changes, laws, etc. might affect firm success in a market. Recognizing and predicting these factors and

providing appropriate solutions play a key role in firm success in the target market. Therefore, market orientation and customer needs is the basic feature of the new marketing.

Successful managers are those who keep their organization up to date. This synchronicity is possible when employees and managers adopt market orientation as a culture and vision. Market orientation requires customer satisfaction as the core of company's activities that must be in line with customer needs. Identifying the needs and expectations of customers and responding to changes in the market play a key role in firm success.

Market orientation includes three behavioral components: customer orientation, competition orientation and interdisciplinary coordination. It also includes two decision criteria: long-term focus and profitability. Marketing orientation is the creation of intelligence throughout the organization in relation to the current and future needs of the customer, the dissemination of intelligence among the organizational sectors, and the global response to that intelligence. It is regarded not only for outside the organization but also within the organization and not only in the domestic markets but also in international and global markets.

A firm with a reactive market orientation approach accept knowledge, experience and deep perception of current customers, while a firm with an active market orientation approach attends discovering the hidden needs of customers. Narvar et al. (2004) introduced a comprehensive concept of market orientation that includes two behavioral approaches: the reactive approach attempts to realize and satisfy the stated needs of customers, while the active approach is an effort to recognize and satisfy the hidden needs of customers. The stated needs may have overt or covert solutions. Discovering and satisfying hidden needs means to guide customers. To lead clients for their satisfaction implies "being active". Therefore, the market orientation approach, that instead of simply responding to customers leads them and their needs, is taken as active market orientation (Ahmadzadeh Fard et al., 2018).

Entrepreneurship

Peter Drucker, the father of management science, defines an entrepreneur as someone who starts an activity with his own economic capital, changes values and reshape the environment around, directing it towards improvement (Khadem Reza, 2017).

Do companies with stronger entrepreneurial motivations perform better? The answer is generally "yes"; though, there are exceptions. Researchers such as Miller and Frieson (1983) noticed important correlations between entrepreneurial intensity and different indicators of company performance such as earnings, revenue-to-sales ratio, revenue growth rate, assets, employment, and a combination of financial and non-financial indicators. The firms that reflect a stronger entrepreneurial orientation than their counterparts in the same industry do perform better (Morris, 2006).

Entrepreneurship as a new phenomenon in the economy plays a helpful role in the economic development and progress. Today, entrepreneurship takes a key role in a competitive and market-based economy. In other words, in a dynamic economy, ideas, products and services are constantly changing, and an entrepreneur is someone who sets the pattern for coping and adapting to new conditions. Thus, in a wide range and in a multifaceted interaction, entrepreneurship plays a crucial role in modern human life.

Communities and organizations are rapidly expanding due to the increase in population and subsequently their complexity is increasing; hence, entrepreneurship as multifaceted interaction between employment and development through innovation and process improvement seems a necessity for economic growth. Organizational entrepreneurs are people who have entrepreneurial practices and behavior within large organizations at all levels of the organizational hierarchy. Joseph Schumpeter calls the entrepreneurial process "creative destruction". In other words, doing new things or inventing new methods in current affairs is a determining feature of entrepreneurship (what is entrepreneurship?)

Jurf Schumpeter, known as the father of entrepreneurship, makes a link between the word innovation and entrepreneurship. In his view, innovation in any of the following areas is considered entrepreneurship.

- ✓ Introducing a new product
- ✓ Introducing a new method in the production process
- ✓ Launching a new market
- ✓ Finding new sources

- ✓ Founding any new organization in the industry (Ali Khadem Reza. "What is entrepreneurship?" Definition of entrepreneurship)

Review of literature

Azami (2015) explored the impact of market orientation on innovation in small and medium-sized enterprises in the Chabahar fisheries industry. He studied 17 managers and experts through a census. The results showed that the level of innovation in the cluster is lower than the average level. Also, the results of bi-variate regression coefficients revealed that market orientation culture has a positive impact on innovation. The results of step-wise regression analysis showed that customer-orientation has the most power to predict innovation in the cluster. Results of independent t-test and analysis of variance suggested that innovation is almost the same among the employees with different demographic characteristics.

Molk Akhlaq et al. (2016) investigated the impact of market orientation on the market performance of small and medium-sized enterprises mediated by innovation capabilities. The population included small and medium-sized companies in industrial towns of West Gilan. The questionnaire was designed based on various studies related to the subject and distributed among senior managers of companies. A total of 200 small and medium-sized companies were identified and the Cochran Limited Society formula was used for sampling. Finally, a sample of 132 companies were selected. Structural equation modeling with partial least squares was used to analyze the data. The results showed the mediating role of innovation capability in the impact of market orientation on market performance. In addition, market orientation had a positive and significant impact on innovation capability and market performance.

Ekhlasi, Seyed Amiri and Hindijanifard (2017) studied the role of domestic market orientation in the development of entrepreneurship for Internet service providers in Tehran. A descriptive survey and a five-point Likert scale questionnaire were distributed among 322 employees and managers who were selected by simple random sampling. Structural equation modeling was used to analyze the data. The results indicate that domestic market orientation has a positive and significant impact on entrepreneurial orientation with a path coefficient of 0.529. Also, it had a positive and significant impact on market orientation with a path coefficient of 0.796. Further, market orientation had a positive and meaningful impact on entrepreneurial orientation with a path coefficient of 0.337. Findings also show that in the relationship between domestic market orientation and entrepreneurial orientation, the variable of market orientation is effective as a partial mediator with an intensity of 0.268. Results of the Sobel test confirms the mediating role of market orientation in this relationship. In addition, the value of VAF for market-oriented mediation was 0.336, suggesting that approximately 34% of the impact of domestic market-orientation on entrepreneurship is indirectly explained by the market-orientation variable.

Rahmani et al. (2015) studied the impact of entrepreneurial orientation on business performance with the mediating role of innovation capacity for Mazandaran Saipa Company. The statistical population included managers and experts of Saipa subsidiaries in Mazandaran province. 171 managers and experts completed the questionnaire. The data was collected via a questionnaire consisting of 31 items and the reliability was confirmed using Cronbach's alpha coefficient. Structural equation modeling was used to analyze the data. The results of data analysis and hypothesis testing show that entrepreneurial orientation has a significant and moderate effect on firm performance. Innovation capacity also might play a strong role as a moderating variable in the relationship between entrepreneurial orientation and firm performance.

Juniati et al. (2019) examined the mediating role of innovation and the impact of multinational corporations' globalization on Malaysian multinational corporations' performance. The data was collected by a questionnaire that was analyzed through modeling of structural equations. The results suggest that globalization has an impact on the innovation of multinational companies. The findings also show that innovation plays a mediating role in the relationship between globalization and the performance of multinational corporations.

Boermans and Roelfesma (2016) explored the impact of localization of small and medium-sized enterprises on innovation and firm performance. The statistical population included small and medium-sized enterprises in the Netherlands. 150 small and medium Dutch companies were selected as the sample and the data was collected by questionnaires distributed among the managers. The results revealed the

positive impact of globalization on innovation. The results also showed that globalization increases firm performance directly and indirectly through innovation, while the direct impact of innovation on firm performance is negligible.

Leal Rodriguez et al. (2016) studied the relationship among market orientation, innovation and performance in small and medium-sized enterprises in Spain. They aimed at investigating the relationship between innovation and firm performance as well as the mediating role of innovation in the relationship between market orientation and firm performance. A total of 145 small and medium-sized Spain companies were selected as the sample and the survey data was analyzed using the least squares method. The results showed that innovation has a positive impact on firm performance. In addition, market orientation indirectly affects the firms' performance through investment.

Padula and Kanti (2015) examined the profitability and innovative performance of small and medium-sized enterprises in technology markets. They compared the innovative performance and profitability of technology professionals with vertically integrated firms. Here, "technology professionals" are companies that are experts and leaders in producing and trading innovations with other companies and in various forms. This usually happens by licensing the agreements. Vertically integrated companies innovate and integrate products with innovations and eventually commercialize them. We argue that tech professionals achieve higher innovative performance compared to vertically integrated companies since they can accumulate deeper and broader innovative experience and at the same time they maintain a more flexible organizational structure. However, due to the inherent defects in market exchanges as well as the lower bargaining power caused by the non-commercialization of assets, technology professionals are less profitable .

Conceptual model of the research

In this section, the conceptual framework of the research is presented as a general goal and based on the review of theoretical literature and related empirical studies (Figure 1).

According to the conceptual framework, hypotheses of this paper are as follows:

1- Globalization impacts the entrepreneurial orientation in small and medium-sized enterprises.

2- Globalization impacts market orientation in small and medium-sized enterprises.

3- Globalization impacts innovation in small and medium-sized enterprises.

4- Entrepreneurial orientation impacts innovation in small and medium-sized enterprises.

5- Market orientation impacts innovation in small and medium-sized enterprises.

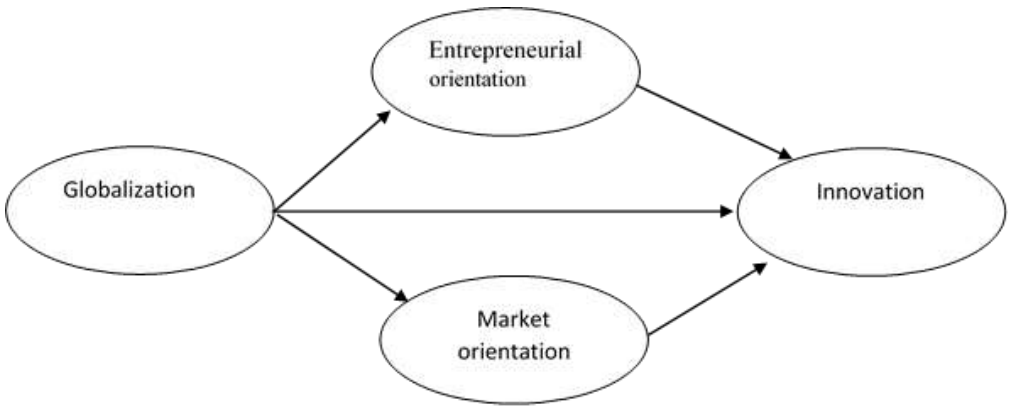

Figure 1: Conceptual model of the research (Ganc et al., 2019)

Methodology

This is an applied research in terms of purpose and a descriptive-correlational research in terms of data analysis. Library and field methods as well as questionnaire were used to collect data. The statistical population includes managers, experts and skilled supervisors of small and medium-sized food companies in Tehran. 136 subjects were selected as the sample by random sampling based on Morgan and Krejcie table. Inferential statistics using SPSS and PLS were used to analyze the data obtained from the

questionnaire. The research hypotheses were tested by the structural equation test of PLS and the relationship among the variables were checked using Pearson correlation test.

Findings

In this section, the hypotheses are presented inferentially and as statistical zero-one form. The hypotheses were examined using the structural equation test of PLS software and the relationship among the variables were checked using Pearson correlation test. Causal relationships based on structural equation modeling were also checked.

Since the use of appropriate statistical techniques requires determination of normality or abnormality of data distribution, the results of the Kolmogorov-Smirnov test are examined for every variable and then appropriate tests are adopted to verify the research hypotheses.

H0: The corresponding variable data has a normal distribution.

H1: The corresponding variable data does not have a normal distribution.

Table 1: Test results for normality of variables

Variable	Statistic	Error value	Sig.	Result
Globalization	051.0	05.0	12.0	Normal
Entrepreneurial orientation	063.0	05.0	08.0	Normal
Market orientation	054.0	05.0	09.0	Normal
Innovation	067.0	05.0	06.0	Normal

According to Table 1, the significance level for all variables is greater than the error value at the significance level of 0.05; so, the data has a normal distribution. In order to provide a clear picture of the relationship among the variables, their zero-order correlation was calculated using Pearson correlation coefficient. The results are shown as a correlation matrix in Table 2 for the whole sample.

Table 2: Correlation matrix of variables for the whole sample (N = 136)

Variable	1	2	3	4
Globalization	1			
Entrepreneurial orientation	48.0	1		
Market orientation	51.0	0/39	1	
Innovation	42.0	59.0	36.0	1
001. 0≤ P				

As seen in Table 2, there is a positive and significant relationship between globalization and innovation (0.42), entrepreneurial orientation and innovation (0.59), and between market orientation and innovation (0.36) at the significance level of $P \leq 0.001$.

Testing research hypotheses

Smart PLS software was used to test the conceptual model of the research. Multiple regressions are used in PLS models and for each part of the model regression, the impact factor, the significance level and the value of the determination coefficient are calculated. PLS path modeling does not provide an indicator of good fit. For this reason, a list of criteria for evaluating sectorial models has been proposed (Azar, Gholamzadeh & Qanavati, 2012). These criteria are applied through a two-step process: 1- Evaluation of external model (measurement model) 2- Evaluation of internal model (structural model)

- **External model**

Two models are tested in PLS models. First, external models were evaluated. The validity and reliability of external models were evaluated according to the criteria set in reflective and formative external models. Once sufficient evidence of the validity and reliability of the external models was obtained, the internal model can be evaluated. The equivalent external model is a measurement model in covariance-based structural equation models that determines the relationship between latent constructs and observed indicators.

Reliability of the questionnaire

According to 30 pre-tests, two Cronbach's alpha methods, and the composite reliability criterion, the reliability of the model is good. The total reliability of the questionnaire is 0.84.

Table 3: Composite (construct) reliability

Variable	Composite reliability
Globalization	919423.0
Entrepreneurial orientation	902300.0
Market orientation	911415
Innovation	915289.0

Convergent and divergent construct validity

The AVE index (mean of extracted variance) shown in Table 4 indicates that the mean of extracted variance for every dimension of the model is greater than 0.5, so the convergent validity of the model is confirmed.

Table 4: Convergent AVE index of the measurement model

Variable	AVE
Globalization	8954.0
Entrepreneurial orientation	8494.0
Market orientation	9837.0
Innovation	8730.0

Fornell-Larker criterion is used for divergent validity. This criterion claims that a variable should be more dispersed among its own representative than the representative of other latent constructs, and the numbers below the square diameter are correlation values. The numbers over the diameter represent AVE and the numbers below the square are correlation values. Statistically, the AVE of every latent construct must be greater than the second highest power of the variable's correlation with other latent constructs. If the AVE of every construct is more than the second highest power of the correlation, the divergent validity of the model is confirmed.

Table 5: Convergence and divergence validity matrix

Variable	1	2	3	4
Globalization	8954.0			
Entrepreneurial orientation	2579.0	8494.0		
Market orientation	3076.0	3066.0	9837.0	
Innovation	6803.0	5713.0	6803.0	8730.0

Table 5 shows the divergent validity via the Fornell-Larker criterion. The numbers over the diameter represent AVE and the numbers below the diameter are the correlation values. As shown in Table 5, the value of AVE for every construct is greater than the second highest power of the correlation of the variable with other constructs in the model. Therefore, the divergent validity of the model is confirmed.

- **Internal model**

Valid and reliable estimates of the external model allow the evaluation of the internal model, which corresponds to the structural model in covariance-based structural equation models. After testing the external model, it is necessary to present the internal model that shows the relationship among the latent constructs. Since the validity of the data collection instrument was confirmed, the relationships among the latent variables can be examined based on research hypotheses.

A. Path coefficients

Using the results of the internal model via Smart PLS software, the research hypotheses are examined.

Figures 2 and 3 show the path model based on the path coefficients and significance level. The coefficients for the relationship between the questions and every variable is the same factor coefficients in confirmatory validity that since they are greater than 0.5, the questions appropriateness for each variable and in fact the validity of the questionnaire is confirmed.

The numbers over the lines (among variables) in Figure 2 are actually standardized beta coefficients in ordinary least squares regressions, which are the same as the path coefficients in the PLS internal model. Path coefficients must be examined in terms of sign, size and significance. Positive path coefficients indicate positive impacts of one construct on another. However, negative sign indicates the negative impacts (inverse relationships) of one construct on another.

B. Significance of paths and t-value

Regarding the significance of path coefficients, statistical t should be calculated and the significance of coefficients should be determined. The significance of a coefficient means that the significance value must be greater than 1.96 or less than -1.96 (the coefficients and significance values are presented in Table 6 to test the hypotheses).

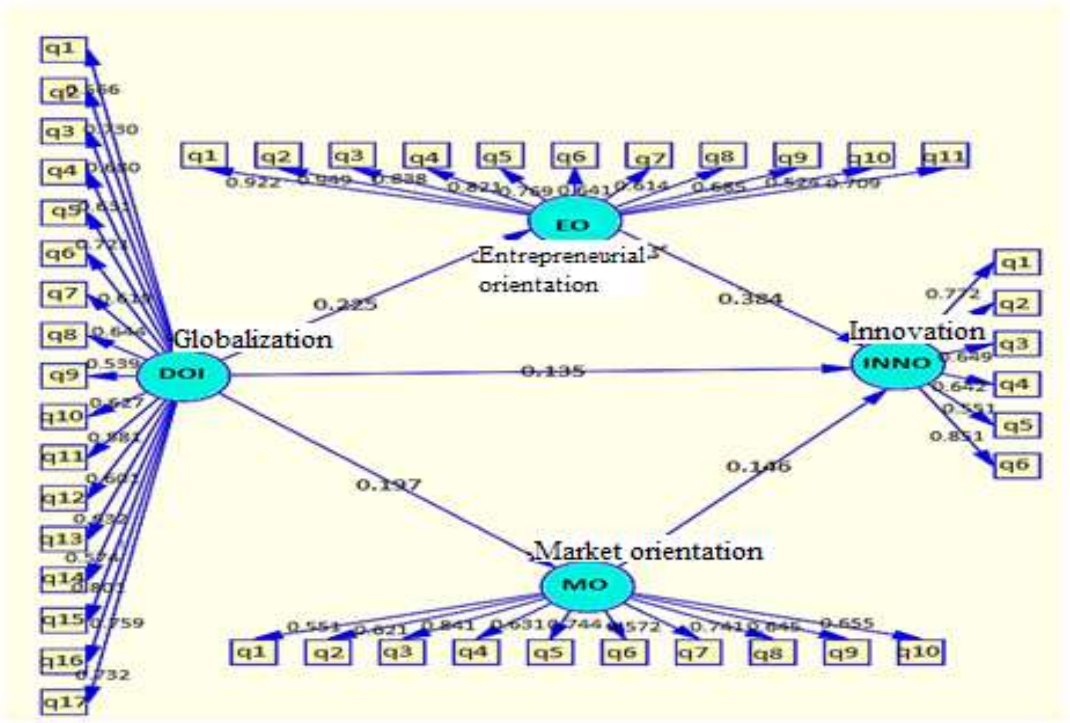

Figure 2: Path coefficients of the research model

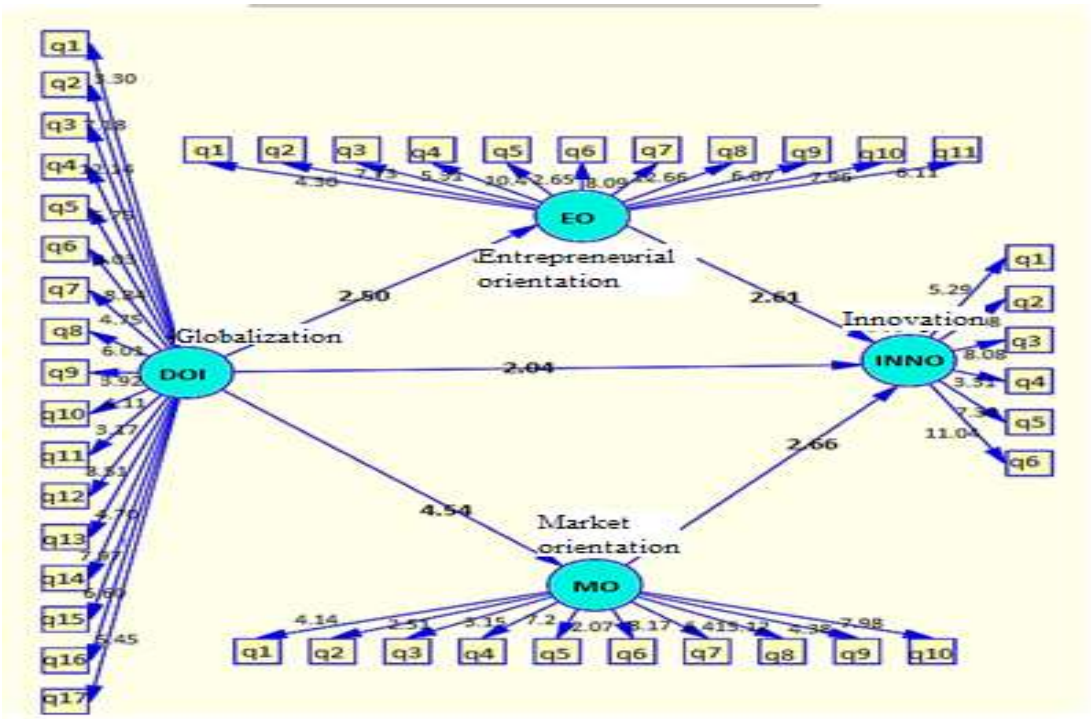

Figure 3: Significance of paths and T-values

C. Testing the hypotheses (based on structural equation model)

In this step, a partial criterion of T-VALUE value was used to test the hypotheses. These values are displayed on the path lines after bootstrap. Figure (2) and Figure (3) shows T-values for the hypotheses in both significant and standard modes.

If the t-value is more than 1.96, the paths are significant and the hypothesis is confirmed. The values over the paths in Figure (2) show the conceptual model of the research in the standard mode which are the same as the path coefficients.

Table 6: Hypotheses test results based on structural equation analysis

Hypotheses from the results of structural equation analysis				
	Path coefficient	**t-value**	**p**	**Result**
Entrepreneurial orientation → Globalization	0.225	2.50	0.000	Confirmed
market orientation → Globalization	0.197	2.54	0.000	Confirmed
innovation → Globalization	0.197	2.04	0.000	Confirmed
Innovation → Entrepreneurial orientation	0.384	2.61	0.000	Confirmed
Innovation→ market orientation	0.146	2.66	0.000	Confirmed

H1: Globalization impacts the entrepreneurial orientation in small and medium-sized food companies.

According to Table 6, the results of structural equation analysis show that the significance coefficient of path (t) for globalization and entrepreneurship is greater than 1.96, suggesting that the impact is significant at the confidence level of 0.95%, and the hypothesis is confirmed. Moreover, the standardized coefficient value indicates that a variance of one unit in the independent variable makes variance of 0.225 in the dependent variable.

H2: Globalization impacts market orientation in small and medium-sized food companies.

According to Table 6, the results of structural equation analysis show that the significance coefficient of path (t) for globalization and market orientation is greater than 1.96, suggesting the significance of the impact at the confidence level of 0.95% and thus the hypothesis is confirmed. Moreover, according to the standardized coefficient value, a unit of variance in the independent variable makes variance of 0.197 unit in the dependent variable.

H3: Globalization impacts innovation in small and medium-sized food companies.

According to Table 6, the results of structural equation analysis show that the significance coefficient of path (t) for globalization and innovation is greater than 1.96, suggesting the significance of the impact at the confidence level of 0.95% and thus the hypothesis is confirmed. Moreover, the standardized coefficient value indicates that a unit of variance in the independent variable results in the variance of 0.135 unit for the dependent variable.

H4: Entrepreneurial orientation impacts innovation in small and medium-sized food companies.

According to Table 6, the results of structural equation analysis show that the significance coefficient of path (t) for entrepreneurial and innovation is greater than 1.96, suggesting the significance of the impact at the confidence level of 0.95%, and thus the hypothesis is confirmed. Moreover, the value of the standardized coefficient suggests that a unit of variance in the independent variable makes variance of 0.384 unit for the dependent variable.

H5: Market orientation impacts innovation in small and medium-sized food companies.

According to Table 6, the results of structural equation analysis show that the significance coefficient of path (t) for market orientation and innovation is greater than 1.96, suggesting the significance of the impact at a confidence level of 0.95%, and thus the hypothesis is confirmed. Moreover, the value of the standardized coefficient suggests that a unit of variance in the independent variable makes variance of 0.146 unit in the dependent variable.

Conclusion and Recommendations

This research examines a phenomenon and offers a new model that provides a better recognition of the relationship between globalization and innovation for emerging enterprises. The general conclusion is that an increase in the degree of globalization will be followed by an increase in the innovation of small and medium-sized enterprises. Also, the increase in entrepreneurship and market orientation will be accompanied with increased innovation for small and medium-sized food companies. To achieve organizational excellence and best performance in small and medium-sized enterprises, attention to entrepreneurship, market orientation and innovation is inevitable. There is a significant relationship and synergy between these factors and they form part of the management system. Therefore, for small and medium-sized international companies, MO and EO are the two main pillars for better innovation performance.

H1: Globalization impacts the entrepreneurial orientation in small and medium-sized food companies.

The analysis of the coefficient of globalization impact on entrepreneurial orientation in small and medium-sized food companies shows that the path coefficient is met at 0.225. According to t-value of 2.50 that is greater than 1.96, it is concluded that this path coefficient is significant at the error level of 0.05; therefore, globalization has a positive and significant impact on entrepreneurial orientation in small and medium-sized food companies and the first hypothesis is confirmed.

H2: Globalization impacts market orientation in small and medium-sized food companies.

The analysis of the coefficient of the impact of globalization on market orientation in small and medium-sized food companies suggests that the path coefficient is met by 0.197 unit. According to the t-value of 4.54 that is greater than 1.96, it is concluded that the path coefficient is significant at the error level of 0.05. Therefore, globalization has a positive and significant impact on market orientation in small and medium-sized food companies and the hypothesis is confirmed.

H3: Globalization impacts innovation in small and medium-sized food companies.

The analysis of the coefficient of globalization impact on innovation in small and medium-sized food companies shows that the path coefficient is met by 0.135 unit. According to the t-value of 2.04 that is greater than 1.96, it is concluded that the path coefficient is significant at the error level of 0.05. Therefore, globalization has a positive and significant impact on innovation in small and medium-sized food companies and the hypothesis is confirmed.

H4: Entrepreneurial orientation impacts innovation in small and medium-sized food companies.

The analysis of the coefficient of entrepreneurial orientation impact on innovation shows that the path coefficient is met by 0.384 unit. According to the t-value of 2.61 that is greater than 1.96, it is concluded that the path coefficient is significant at the error level of 0.05. Therefore, entrepreneurial orientation has a positive and significant impact on innovation in small and medium-sized food companies and the hypothesis is confirmed.

H5: Market orientation impacts innovation in small and medium-sized food companies.

The analysis of the coefficient of market orientation impact on innovation shows that the path coefficient is met by 0.146 unit. According to the t-value of 2.66 that is greater than 1.96, it is concluded that the path coefficient is significant at the error level of 0.05. Therefore, market orientation has a positive and significant impact on innovation and the hypothesis is confirmed.

Recommendations

- Due to the broad facets of e-commerce and globalization, and since it is a relatively new topic in Iran with only few years of experience as well as since it is being cultured during its initial stages, conducting research on the factors and barriers to e-commerce implementation and solving the problems can pave the way for globalization.
- Interested researchers and experts should generalize our results by conducting studies in other industries and comparing the results using diverse tools. This is because the rarity of such studies may loosen the conclusiveness of the influence of research variables; hence, further investigation can eliminate doubts.
- A desirable research may be achieved for other researchers by evaluating the relationships of the variables of this study in other companies and prioritizing them with different analytical research approaches. Furthermore, they can use our results to select the best company to study.

References

[1] Ekhlasi, A., Seyyedi Amiri, N. Hindijani Fard, M. (2017), "The role of domestic market orientation in the development of entrepreneurial orientation; Internet service providers in Tehran", research article.

[2] Azami, Z. (2018). "Study of the impact of market orientation on innovation in small and medium-sized businesses (Case Study: Fisheries Industry)", 3rd International Conference on Dynamic Management, Accounting and Auditing, Tehran.

[3] Khadem Alreza, A. (2017)."Entrepreneurship Toolbox". Tehran: Dibagaran Tehran. p. 28

[4] Khodadad Hosseini, H. (2010). "The impact of the Internet on directing export channels in small and medium enterprises". Journal of Business Management Exploration. 2nd year, 3rd issue.

[5] Khalili, A. (2017). "Industrial clusters in today's businesses" Islamic Republic News Agency.

[6] Rahmani, Z. Rezaei, M. (2015). "Study of the impact of entrepreneurial orientation on business performance with the mediating role of innovation capacity (Case study: Saipa Company, Mazandaran Province)". Special issue of the 4th National Conference on Management and Entrepreneurship, Volume 5, pp. 133-146.

[7] Islamic Consultative Assembly Research Center. (2014).

[8] Review of entrepreneurship development regulations and the role of small business administration in USA." Spring 2014.

[9] Molk akhlagh, A., Ebrahimpour, M., Nowruzi Rudposhti, Z. (2016). "Study of the impact of market orientation on the market performance of small and medium-sized enterprises through the mediation of innovation capabilities". Scientific Journal of Business Strategies". 13 (7): 57-74.

[10] Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, *7*(1), 22-53.

[11] Boermans, M. A., & Roelfsema, H. (2016). Small firm internationalization, innovation, and growth. *International Economics and Economic Policy*, *13*(2), 283-296.

[12] Boermans, M. A., & Roelfsema, H. (2016). Small firm internationalization, innovation, and growth. *International Economics and Economic Policy*, *13*(2), 283-296.

[13] Chen, Y. S., Lee, H. Y., Chen, P. S., Gu, P. Y., Chen, C. W., Lin, W. P., ... & Chen, W. S. (2009, December). Highly scalable hafnium oxide memory with improvements of resistive distribution and read disturb immunity. In *2009 IEEE International Electron Devices Meeting (IEDM)* (pp. 1-4). IEEE.

[14] Ciravegna, L., Lopez, L., & Kundu, S. (2014). Country of origin and network effects on internationalization: A comparative study of SMEs from an emerging and developed economy. *Journal of Business Research*, *67*(5), 916-923.

[15] Genc, E., Dayan, M., & Genc, O. F. (2019). The impact of SME internationalization on innovation: The mediating role of market and entrepreneurial orientation. *Industrial Marketing Management*, *82*, 253-264.

[16] Gholami, S. & Birjandi, M. (2016). The effect of market orientation and entrepreneurial orientation on the performance of SMEs. Journal of Current Research in Science, 11(1), 361-369

[17] Juniati, S., Saudi, M. H. M., Astuty, E., & Mutalib, N. A. (2019). The impact of internationalization in influencing firm performance and competitive advantage: The mediating role of eco-innovation. *International Journal of Supply Chain Management*, *8*(1), 295-302.

[18] Lawson, B., & Samson, D. (2001). Developing innovation capability in organisations: a dynamic capabilities approach. *International journal of innovation management*, *5*(03), 377-400.

[19] Leal-Rodríguez, A. L., & Albort-Morant, G. (2016). Linking market orientation, innovation and performance: An empirical study on small industrial enterprises in Spain. *Journal of Small Business Strategy*, *26*(1), 37-50.

[20] Lin, C. Y. Y., & Chen, M. Y. C. (2007). Does innovation lead to performance? An empirical study of SMEs in Taiwan. *Management research news*.

[21] Morris, B. (2006). Religion and anthropology: A critical introduction. Cambridge University Press.

[22] Ortt, J. R., & van der Duin, P. A. (2008). The evolution of innovation management towards contextual innovation. *European journal of innovation management*.

[23] Padula, G., Novelli, E., & Conti, R. (2015). SMEs inventive performance and profitability in the markets for technology. *Technovation*, *41*, 38-50.

[24] Shirokova, G. Bogatyreva, K. Beliaeva, T. & Puffer, S. (2016). Entrepreneurial orientation and firm performance in different environmental settings: contingency and configurational approaches. Journal of Small Business and Enterprise Development, 23(3), 703-727.

[25] Tarrow, S. (2014). Making Social Science Work Across Space and Time: A Critical Reflection on Robert Putnam's "Making Democracy Work". American Political Science Review, 2: 389-97

[26] Vila, N., & Kuster, I. (2011). Consumer feelings and behaviours towards well designed websites. *Information & Management*, *48*(4-5), 166-177.

[27] Yliherva, J. (2004). *Management model of an organization's innovation capabilities; development of innovation capabilities as part of the management system* (Doctoral dissertation, dissertation, Department of Industrial Engineering and Management, University of Oulu).

[28] Zawislak, C. L., Beaulieu, A. M., Loeb, G. B., Karo, J., Canner, D., Bezman, N. A., ... & Sun, J. C. (2013). Stage-specific regulation of natural killer cell homeostasis and response against viral infection by microRNA-155. *Proceedings of the National Academy of Sciences*, *110*(17), 6967-6972.

[29] Zheng, W. (2008). A social capital perspective of innovation from individuals to nations: where is empirical literature directing us? International Journal of Management Reviews, 10(4), 1-39.