European Online Journal of Natural and Social Sciences 2015; www.european-science.com
Vol.4, No.1 Special Issue on New Dimensions in Economics, Accounting and Management
ISSN 1805-3602

A Review on Relationship between the Desire to Exports, Technologic Innovation and Size of Organizations in Small and Medium Industry in the Global Markets Environment

Hassan Esmailpour[1], Bahram Sattari[2*]
[1]Faculty of Management, Central Tehran Branch, Islamic Azad University, Tehran, Iran; [2]Young Researchers and Elite Club, Tabriz Branch, Islamic Azad University, Tabriz, Iran
*E-mail: Bahram.sattari@ut.ac.ir

Abstract

Export constitutes of one of the most vital sectors of the economy of each country. Exportation of goods and services are the most important source of foreign exchange earnings. With the increase in global trade and intensified competition around the world, many companies are starting in search of opportunities of growth and increasing profit. This study has discussed, review on relationship between the desire to exports, technologic innovation and size of organizations in the small and medium industry in the global markets environment. In this study, 185 export organizations of Medicinal herbs as Tehran Union members were studied. Variables were analyzed by using PLS software. The results of study showed that there is a significant relationship between the variables.

Keywords: innovation, innovation capabilities, product development capability, strategic capability, creativity and innovation, technology capability

Introduction

In an increasingly global environment, exports play an important role in the strategies of small and medium business (Golovko and Valentin, 2011: 363). Export is a broad international initiative by small and medium businesses and allows them to deliver their products in international markets and benefit from the scale of economic. In addition, exports can be considered as a regarded resource in foreign markets (Morgan et al., 2012: 99). Export greatly affects the performance of SME (Stoian et al., 2011: 118). SMEs have the ability to create technological innovation in different economic environments due to their inherent capabilities. From their unique feature can be considered the simple organizational structure, proper internal communications, better focus, fast decision making, more flexibility etc… These SMEs have dynamic and innovative capabilities and can have good profitability and growth as well.

Thus, SMEs have unique role to create technological innovation in the economy. However, capacity for innovation capabilities and ability to develop new products and process capabilities of new services significantly depends on size, focus, resources, and business environment of SMEs. Several researchers began to investigate the influence of variables on innovative small businesses and came to different conclusions, which can be indicative of the fact that innovation is not well understood (Krishnaswamy et al., 2014: 21).

Today, no country is living in complete separation from other countries. Economic resources, technology, and living standards of a country relatively depend on the economy of other countries that are related to each other by complex flow of goods, services, capital, and technology (Gura, 2007). Countries raise their production levels and earn more profits through international exchanges. They earn the goods that they are not able to produce by importing and exports and send their manufactured goods surplus to other countries through exports (Pierce et al, 1998).

Several competitive advantages are gaining momentum with the increase in international trade in different countries and the emergence of new global actors. Reduction of trade barriers in emerging markets in developing countries creates new opportunities and comparative advantages. World economic globalization has increased competitive advantage in global markets. It is important that with specialization in international markets compared to developed countries, which are well above the industry level countries in emerging markets have many human forces (Huo, 2014; 293). Exports positively influence the level of employment, foreign exchange earnings, industrial development, and national prosperity effective. While improving corporate performance brings profitability, sales volume and market share. Exports and international strategies of companies are important with globalization and economic integration among countries. (Mehmet et al., 2010: 208).

In the literature of export, the assumption is that organizational performance can be controlled by internal factors and are determined by the size of the company structure and management features (Sousa et al., 2008). Structural features include the company's strategy, which should be determined according to the external environment and organizational characteristics (Cavusgil and Zou, 1994). Organizational features include special skills such as the ability of technology development and product that also encompasses innovation management.

Therefore, technology, strategic and product development and innovation are of the company's performance records. Innovation capabilities are the company's ability to develop new products for exports through a combination of innovative behavior, strategic capabilities, and internal technological processes (Wang and Ahmed, 2004). Four elements are each woven so high, which provide creativity and generate new ideas with progressive culture in corporate (Dibrell et al., 2014: 2002).

The importance of goods and diversity of export are essential for economic growth and development (Aditya and Acharyya, 2013: 960). Emerging literature concerning the export in different levels of countries is important. The most important decisions taken at the corporate level are to introduce new products to export. This diversity in products is to reduce the uncertainty at the international level and to increase competitive advantage. In reviewing the factors affecting export performance, increased productivity and exchanges have been studied on efforts to innovate (Cirerra et al., 2015: 1965).

Innovation capacity and international experience are the factors relating to the Company's internationalization process (Fleury et al., 2013: 260). Exports are the first step of this process. Yet developing countries apply the companies of developing countries because the benefits of new markets and patterns for International Development as an international model to Export Development (Oura et al., 2015: 2).

Intensity of global competition has made product life cycles shorter and has accelerated new product development, which has forced export companies to take advantage of innovative activities as a way to compete. Innovation for survival and long-term success of exports companies is vital (O'Regan et al., 2006; Yam et al., 2004). Innovation as a competitive advantage is to improve efficiency in international markets (Viravardena et al., 2004; Salomon and Shaver, 2005).

Export companies having the ability to innovate should have the ability to integrate their core capabilities that lead to innovation and increase the performance (Guan and Ma, 2003; Lawson and Samson, 2001). Today, the scientific community and industry have concluded that organizations can maintain long-term advantages in competitive arena by relying on innovation and strengthen and promote innovation and innovative activities within it (Boly et al, 2003).

In particular, export companies, in the case of inclination to export, in developing countries are face with limited resources to research and development and innovation in exports (Adu-Gyamfi

& Korneliussen, 2013: 356). Several variables affect the export performance of companies that can be divided into the management procedures of the company (export commitment, international orientation, perceived export barriers), physical factors (size, financial resources and company locations), organizational factors (capabilities of the company export overall strategy, strengths of export product) relational resources (distribution channels and customer relationships, communication with the supply chain, interpersonal research and visit foreign markets). These factors can have an impact on innovation capacity and international experience (Aura et al., 2015: 3).

Despite the growing interest in exports innovation, most researches focus on innovation outcomes (Cassiman and Golovko, 2011: 58). Or, in a very small number, indices of innovation, operational definition, and measurement of innovation capabilities in the field of exports have been evaluated which implementing it can lead to successful investing in exports. Finally, the resource-based view (RBV) is considered by creating capabilities for exporters, with the establishment of innovation as a key factor in the performance of the industry. Lack of necessary actions in innovation capabilities is based on the theory of resources in foreign markets (Hogan et al., 2011: 347). Factors influencing the innovation capabilities of export development are essential. Understanding a few key elements of innovation is useful to reflect the overall ability of export companies and to produce innovation and achieve superior performance. Measuring innovation capabilities through multi-dimensional structures is more reliable than using a generic concept, and one or two aspects of the innovation (Wang and Ahmed, 2004: 393).

According to the above-mentioned variables, firm size is possibly effective as a limitation in innovation capacity of companies in developing countries. However, extensive research has been done to evaluate companies' export performance due to increased capacity and capabilities of organizational innovation. In this study, we will discuss the desire to export, innovation capability, and size of the organization.

Literature Review

Innovation ability

In the new millennium, the theoretical framework of international trade with regard to improvements in the economy has been created by changing technology. In fact, the main problems in the field of business models in different countries are technology and innovation. Bari has provided an overview of the relationship between innovation and internationalization through the analysis of macro-economic factors from initial studies such as Stow (1987), Porter (1990) or Dessi et al (1990). In general, according to assessment approaches, and innovation behavior studies on the ability of domestic companies and innovation performance have been considered mainly for economic assessment (Rodil et al., 2015: 2).

Management Research cited the importance of innovation and there are different definitions of this concept in the literature. Thompson (1956) has expressed in defining innovation: “Creation, acceptance, and use of new ideas are new processes, products, or services.” Lander et al. (2003) also have defined innovation as the use of new idea that creates value. In more recent research, innovation refers to applying and creating products, services and new products or improving existing methods, which aims to increase the company's competitive advantage (Forsman, 2011: 741). Innovation activities are complex processes that occur in several stages (Hollenstein, 2003: 846).

Sattari et al (2013) studied the entrepreneurial orientation is combination of three dimensions of: innovation, risk-taking and being active. Organizations that entrepreneurial orientation is high in them are more inclined to move toward hunting new opportunities. Innovative businesses that

provide products and innovative technologies to market can achieve extraordinary economic profit and can benefit from the advantages awarded to pioneers of market, to be targeting the good markets and have better performance against competitors.

In today's dynamic and changing environment that the source of it is increase in competitions, globalization, and the emergence of new technologies; growth path, achieve high performance and survival in the global economy and innovation. The requirement to be pioneer compare to competitors are the desire, and ability of organization to create and commercialization of processes products and new business systems or the innovation that helps companies to be different. Innovation can be seen as part of the organizational culture and define it as innovation tendency of organization (Shakeri, et al., 2011: 30).

In the macroeconomic dimension, industrial innovation is an underlying issue in economic growth and is followed by long-term socio-economic development in industrialized countries. According to measurements carried out in the 1950s, the main source of growth in productivity is resulting from products and new processes based on advances in science and technology. Therefore, in productivity growths, the growth of physical and human capital had not been of much importance. In other words, empirical researches show that innovation leads to growth and revitalize the enterprises.

Brouwer and Kleinknecht (1994), Archibugi and Pianta (1994), Audretsch (1995), Lawless and Anderson (1996), Metcalfe (1988) Believe that innovation is a very risky and complex process coupled with low success rates and sometimes disastrous effects. Innovation has the potential to modify and impair the institutional framework and often is performed in an unpredictable and certain way.

Zammuto and O'Connor (1992), Dean and Snell (1991), Lundvall (1992), Leonard-Barton (1998) and Dougherty and Hardy (1996) are unanimous on this subject. Historically in the 1980s, enterprises were downsized and re-engineered. In the late 1990s, product innovation and process were used as tools to create sustainable comparative advantage. Intel, Nokia, Ericsson, Daimler, Chrysler, Microsoft, DuPont, and many transnational corporations have created pension stream of innovations that will strengthen their market position (Muse and Adcouist, 2010). Yet many examples of large companies at the top of the world, including in Iran are dominating the market that have not been able to progress and achieve significant results in innovation. Perhaps the most important reason, in this perspective, the lack of knowledge, or little knowledge of the causes and factors such as organizational culture, organizational structure, and similar that affects innovation, including product innovation.

Innovation is an important factor for competitiveness in the world. The secret of survival of the today organization is its innovation. Innovation is the capturing of organizational tendencies toward innovation and responding to environmental changes that these answers could be in the form of product, service, process, technology, behavior, market, and business systems. Schumpeter was the first person who stated innovation in the form of a scientific concept. In fact, he attempts to identify factors influencing the economic growth of the country that, in this context, discovered the role and importance of innovation in developing countries. According to his theory, innovation appears in one of the forms below (Muse and Adcoist, 2010: 89):

- Introduction and commercialization of new product or service or essential improving in the application of existing products and services;
- Introduction of new production process or substantial improvement in available work processes;
- Opening new markets;

- Development of new sources of supply, such as raw materials, equipment and other inputs;
- Fundamental changes in industrial and organizational structures.
- Classification of innovation (Source: Muse and Adcoist, translation Pourjafari Moghadam, 2010: 89)

Various kind of innovation has been discussed by different authors. These studies are in the three fields of innovation outputs, inputs, and processes. For example, Schumpeter, J.A (1934) the scope of innovation considers as new product or service, develop new production methods, identify markets, and explore new sources of supply and the development of new forms of organizational. Miller, D. and Friesen (1983) note to four dimensions such as product or service, methods of product or service, risk taking in executive programs and search for new and unusual solutions.

Cotton et al (1992) defines three dimensions of organizational innovation as being innovation in the market, strategies, and technological skills. But in general, innovation has been placed in three forms of products, processes, or new business systems considered by more authors (Crespell, P., & Hansen, E, 2007, Hovgaard, A., & Hansen, E, 2004, Knowles, C., Hansen, E., & Shook, S, 2007). Thus, being innovation also defines as the willingness and ability of the organization to adapt or development of innovation in the form of product, service, process or business system (Crespell and Hansen, 2007). In a general classification, innovations include process innovation and product innovation (Muse and Adcoist, translation by Pourjafari Moghadam, 2010:

Product innovation: includes better or newer product that is produced and sold. This question is proposed that what is produce? Product innovation includes products with new materials and as well as new untouchable service.

Process innovation: is the new ways of producing goods and services. The issue is that how are produce the existing products? The process innovations may be technological or organizational type. Technological product innovations and goods are the main subject in this type of scientific classification.

- Producing innovation includes several basic aspects (Lilien and others, 2002):
- Searching the needs for products, processes and new services;
- Determining the proper management and implementation of new products;
- Establishing appropriate planning for the entire management system to promote the commercialization of new products;
- Selection of new product opportunities for investment;
- Strengthening institutional capacity to create successful new products;
- Producing new product and implementation of development program of new product

Types of innovation will be classified as follow: product innovation, processes technology, marketing and organizational non-technological affairs (Evangelista and Vezzani, 2010: 1254). The degree of innovation can be distinguished as radical and incremental. Radical innovation includes significant changes in the product technology, gradual innovation, and improvement in product (Telliset et al., 2009: 5). Radical innovations are usually more expensive than incremental innovation, which can have a negative impact on the company's financial position (Rubera and Kirca, 2012: 132).

The research literature has a positive relationship between exports, innovation, and productivity. With regard to mechanisms that companies choose, companies that are more creative in the domestic market will be more successful in exports by offering more diverse products (Cassiman and Golovko, 2011: 364).

RBV theory provides a useful lens to examine the benefits of innovation capabilities in enterprises (Trzvasky, 2010, 896). This idea is a special bundle of resources and capabilities to achieve competitive advantage and provides superior performance. Resources include tangible and intangible assets that are invested in exports (Wernerfelt, 1984). A company can better use of its own resources and to achieve distinctive capabilities (DeSarbo et al., 2007; Prange and Verdier, 2011).

In earlier research, innovation capabilities are often measured by a standard or dichotomous variables such as process or product; it is radical or incremental (Cassiman and Golovko, 2011). Innovation is an incredibly complex phenomenon that needs a set of organizational elements to achieve success (Guan and Ma, 2003).

In this study, we have represented innovation ability as a company's ability to develop new products for export markets by combining innovative practices, strategies capabilities and processes of domestic technological. In this sense, innovation includes four key dimensions such as new product development capability, strategic capabilities, innovation and technology capability.

1- The product development capability refers to product development and launch new products for export (Calantone et al., 2003; Zou et al., 2003). These products are developed over time and regularly improved its features. Garcia and Clantone (2002) pointed out that innovation is not only during the product development process but also at the stage of publication that products and processes are continuously improved. Therefore, a company must have an organizational structure, appropriate cultures, and strategies to encourage innovation to develop products (Chen, 2009; Damanpour, 1991).

Design and development of physical product usually have been more common than services development and people have a clear picture of it in mind. Manufacturing companies generally devote some parts as research and development to this purpose that in fact; provide new design for new products based on the needs of the consumer market in coordination with marketing and sales. Conversely, financial institutions and collections services pay less attention to this issue and do not provide systematic processes for their product development (Vermulen, 2001).

The researchers have focused on describing the steps that must be considered in product development, and many models have been developed for product development. Including models that can be mentioned are Vermulen models: departmental-stage model, activity-stage model, conversion and response model, Scheuing & Johnson (1989) Bozel et al. departmental-stage model (1982); the four-stage model of Becker and Vizzler (1986) cascade models; spiral model etc. All the above models have shortcomings that we can point at insufficient level of detail, lack of self-configuration capabilities, lack of empirical evidence, lack of application of strategic management in product innovation and lack of information technology support and communication (Dechang et al., 2003).

2- Innovation way: refers to aspects of organizational culture that shows the acceptance of new and innovative ideas in organization (Tsai and Yang, 2013), which is the direction of organizational innovation that leads to formation of people, team, creativity, and risk taking in organization. These innovative practices are for developing new products, services, and technological processes that the innovation will be strengthened by the culture of company.

3- Strategic capability: indicates the company's ability to develop, formulate, implement, and monitor strategies of innovation (Cohen and Cyret, 1973). A company has strategic plan that is flexible and capable of understanding and responding to changes in the environment. Companies create the capability to overcome organizational inertia and old routine failure that hinders innovation by combining formal and flexible method, (Zhou and Wu, 2010). Identification of

opportunities in exportion market leads to use of innovative strategies and provide new and innovative products (Vincent et al., 2015: 34).

Technologic capability: represents domestic investment to create technical knowledge in order to improve companies and successful innovation (Yam et al., 2011; Zhou and Wu, 2010). Technological capabilities help companies to achieve competence in technology and to develop effective processes for new product testing (Yam et al., 2011). In a dynamic exportation environment, companies have invested heavily in research and development in order to respond quickly to customer needs that lead to creating new competitive and profitable products (Vincent et al., 2015: 35).

Based on the theory of RBV, product development, innovation, strategic capabilities and technological capabilities are difficult depending on skills and collective learning based on tacit knowledge. Since the capabilities deeply affect the organizational procedures and processes, it is not easily traded or imitated and these are the unique characteristics of the company (Peteraf, 1993).

Size of organization and amount of the export

The relationship between variables such as age, size and exportation performance have benn heavily considered in recent studies. As a result, according to the process of globalization, internationalized activities are prerequisites for survival and success. In internationalization process, export as a central role is considered as the easiest and fastest way to access foreign markets. Assets are required in terms of financial, organizational and management resources for exports. It is always considered as a practical way to bigger markets for small and medium-sized companies. Given that exports are considered as a perfect opportunity for any companies, but the relationship between exportation performance and size has been disputed for a long time. In any case, exports require different organizational tools and resource commitment that consequently exportation activities significantly, will be affected given the amount of available resources (Serra et al., 2012: 214).

The relationship between firm size and propensity to export is one of the most controversial issues in literature of small businesses in international level. Experimental findings show conflicting results. Some researchers have found a positive relationship between the two variables (Moini, 1995; Wagner, 1995) while others (Banaccorsi, 1992; Moen, 1999) showed that there is no relation between these two variables (Majoccia et al., 2005).

Firm size and location of the company is a factor that strongly affects export companies. Firm size influences key input of business processes, such as money, people, and facilities that finally affect the intensity of exportation of company and the willingness of companies. Large companies achieve a higher level of economies of scale according to financial sources and more human that they have. These features will facilitate entry into international markets. In addition, small companies are faced with many exportation hurdles in carrying out their activities (Mesa Fernandez and Alegre, 2014).

Firm size is arguably one of the most important variables in exports. Given that failure to observe the size, can be an important factor for export in small and medium companies. Number of employees, the level of sales and the volume of company's assets are the most important indicators for the firm size. In most studies, the number of employees is used overwhelmingly to the size of companies (Serra et al., 2012: 151).

The research literature suggests that may be other factors impact on the relationship between innovation and exports. Firm size is one of the structural features that have attracted the most attention in the research literature. According to the research literature, corporations that possibly have appropriate resources and capacity necessary to perform R & D activities, have the innovation in an uncertain environment (Majocchi et al., 2005). In addition, large size allows companies that

have high internal efficiency, so reach to a competitive position in international markets. This means that the Firm size is a prerequisite for exportation activities (Rialp et al., 2004).

However, small companies can be more convenient in identification of opportunities than large companies and have higher flexibility. However, small companies are better able to adapt to a changing environment (Lee et al., 2012; Esteve-Pérez and Rodríguez, 2013). This feature allows companies to use more innovative activities. The relationship between firm size and exports has more ambiguity (Rodial et al., 2015: 4). We use two criteria, the sale logarithm and the number of employees in this study to measure this variable.

Research background

Macchoci et al (2005) examined the size of the company and business experience attracted toward export in small and medium company. In this study, which was conducted in the period 2001-1997, relationships between variables were examined by using time series analysis. The results showed that business experience is an important factor in the relationship between export and the size of the organization. Relative changes in experience have an impact on exportation performance.

Pla-Barber and Jose´ Alegre (2007) examined the relationship between the desire to exportation, innovation, and Firm size involved in knowledge-based industries. In this paper, they investigated 121 companies in French biotechnology industry. The results showed that firm size is not the determining factor for innovation and is not a tendeny to export. However, the results showed that the correlation between innovation and the desire to export is positive.

Serra et al (2012) examined the factors affecting the desire to export of companies from Great Britain and Portugal's textile companies. In this study, 167 Portuguese companies and 165 British companies were studied. The results showed that firm size, training managers' level, firm age, and perceived costs are key factors influencing the desire to export. Companies with certain characteristics such as size, competitive advantage, and technology can increase their exports.

Monreal Prez et al. (2012) carried out a longitudinal study of the relationship between activities of export and innovation in Spanish companies: the role of management efficiency. By examining the Spanish export companies in the period 2008-2001, they showed innovation increases the performance of export companies and internal organizational has no impact on creating product development and innovative processes.

Sirsa and colleagues (2015) examined explanation of the variation of Brazilian exports companies through innovation. The results showed that access to resources in the study of innovation in emerging economies could not be conducive to export diversification. Innovative efforts and strategic position of company in domestic market are important in the creation of this export diversification.

Wu and colleagues (2015) examined the effects of institutional quality and diversity of foreign markets on companies innovation export. The results showed that in emerging markets, improvement of export performance effects on improvement of innovation, and a high degree of diversity in export markets. This study showed that institutional diversity undermines positive relationship between institutions and companies' innovation.

Vicente et al (2015) measured the capabilities of innovation in export companies. The results showed that capabilities of innovation and creativity in organizations is higher than other aspects of product development capability, strategic and technological capabilities that these four dimensions have a significant positive impact on investment performance.

Rudy et al (2015) examined the relationship between innovations in behavior of investors in Galician companies (In West Spain). In this study, by using multiple regressions they concluded that the existence of organizational support has a positive relationship with innovation and export.

Shah Abadi et al (2011) examined the role of innovation and competitiveness on export performance in Islamic countries of group D8. They examine the role of fundamental variables of innovation, competitiveness, research, development, and productivity, work force on the export of D8 countries during the period 1980-2009. The results of this study indicate poor condition of export, innovation, and competitiveness in the countries of the developed countries; therefore, these countries should pay more attention to fundamental variables such as innovation that now play a more prominent role in the export performance. Thus in order to reduce the technology gap, increase competitiveness and achieve sustained and stable economic growth ,there is a need to use macroeconomic policy in focusing on the components of economic knowledge and the agents of transferring technology to focus on export performance. Eyvazi and colleagues (2011) examined the relationship between a desire to export, innovation, and firm size in small and medium-sized industries. The results showed that firm size is not a determining factor for innovation or export. The results also showed that there is a significant relationship between innovation and export rate. However, the firm size does not have an impact on export. These findings are compatible with previous research about business companies and innovation management.

Karam Pour and Ebrahimi (2011) developed a competitive strategy and innovative technical knowledge in export performance. The results indicate that competitive strategy and innovative technical knowledge both influence on export performance. However, the extent of the impact of technical knowledge innovation on export performance is more than the application of this strategy.

Research hypotheses

Research hypotheses are developed as follows:

H1. Organizational innovation has an impact on the capability of product development.

H2. Organizational Innovation has an impact on capability of being innovative.

H3. Organizational innovation has an impact on the strategic capability.

H4. Organizational innovation has an impact on technological capability.

H5. Organizational innovation has an impact on the amount of export.

H6. Firm size has an impact on the amount of export.

H7. Firm size has an impact on organizational innovation.

Methodology

This study is an applied descriptive which is carried out with a survey method. The population for this study are the members of exporters of medicinal herbs union in Tehran that are 17 people who referred to desired corporate headquarters in the period of study. After developing the preliminary design of the questionnaire, it was attempted to determine the validity and reliability of the questionnaire. Data collection tools of the questionnaires were taken from research of Palabarbr and Alegre (2007), Vicente et al. (2015) and Ridial et al (2015). In each of these medicinal herbs export companies, 20 questionnaires were distributed. After a week, 185 questionnaires totally were collected.

Variables and Research model

In order to ensure the quality of data collected and understanding the general characteristics of the sample, its demographic variables are stated. Subjects of demographic statistical information have been given in table (1) and (2).

Table 1: Demographic information based on gender

gender	number	percent
female	32	%17
male	153	%83

Table 2: Demographic information based on education

Education	Number	Percent
Diploma	13	7%
Associate Degree	43	23%
Undergraduate	87	47%
Postgraduate	42	23%

Validity and reliability of variables in models of research

Since the standard questionnaire is used to measure the variables, first, the given indexes were translated and then required modifications were done with referring to the elite. In table 3, we can see all the bars have a variable value greater than 0.5 and confirms that the reliability of the measurement model is acceptable.

Then, the reliability of variables was evaluated by Cronbach's alpha indices with the standard rate more than 0.7 (Cronbach, 1951) and the composite reliability (CR) with high standard rate of 0.7 and a developed mean variance (AVE) with a standard rate more than 0.5 (Fornell and Lacker, 1981) by using Smart-PLS software. It can be seen in Table 3 that reliability and validity of the variables of study are convergent.

Table 3: Reliability and convergent validity of study variables

Variable	Question No.	Cronbach Alpha	AVE	CR
The amount of export	4	0.844460	0.680183	0.893843
The organizational innovation capability	4	0.866272	0.723104	0.910860
Being Innovative	3	0.895415	0.827632	0.935028
Product development capability	4	0.884499	0.744176	0.919883
Firm size	2	0.830118	0.854786	0.921708
Strategic Capability	3	0.832410	0.752018	0.900567
Technological Capability	3	0.731751	0.647906	0.846392

Divergent validity (Fornell and Larkr method)

In divergent validity, the difference between the parameters of a structure will be compared with other structures indices in the model. This is calculated by comparing AVE square root of each structure with correlation coefficient between each structure.

Table 4: The Matrix to compare low square of AVE and correlation coefficient of structures

	The amount of export	The organizational innovation capability	Being innovative	Product development capability	Firm size	Strategic Capability	Technology capability
The amount of export	0.825						
The organizational innovation capability	0.616	0.850					
Being innovative	0.714	0.696	0.910				
Product development capability	0.550	0.462	0.406	0.863			
Firm Size	0.628	0.604	0.657	0.368	0.925		
Strategic Capability	0.651	0.723	0.610	0.494	0.701	0.867	
Technology capabilities	0.447	0.546	0.359	0.000	0.527	0.486	0.805

To do this, we should form a matrix that values of the main diagonal of the matrix is square AVE coefficients of each structure and lower and upper main diagonal, correlation coefficient between each structure with other structures. This matrix is shown in Table 4.

As it is clear from the above matrix, square root of each AVE has become more than the correlation coefficient of the same structure with other structures that, this shows the divergent validity of structures is acceptable.

Research findings

First hypothesis: The amount of path coefficient for the relationship between two variables of organizational innovation capacity and Product development capability has been calculated 0.462. According to Figure 2, it can be seen that significant amount of 4.654 has been obtained for this path, which is not in the range of (1.96 and -1.96). Therefore, it can be concluded that this coefficient is significant at the error level of 0.05. In other word, organizational innovation capability has a significant and positive impact on being innovative. Thus, second hypothesis is confirmed.

Second hypothesis: The amount of path coefficient for the relationship between two variables of organizational innovation capacity and being innovative has been calculated 0.696. According to Figure 2, it can be seen that significant amount of 8.761 has been obtained for this path, which is not in the range of (1.96 and -1.96). Therefore, it can be concluded that this coefficient is significant at the error level of 0.05. In other word, organizational innovation capability has a significant and positive impact on being innovative. Thus, second hypothesis is confirmed.

Third hypothesis: The amount of path coefficient for the relationship between two variables of organizational innovation capacity and Strategic Capability has been calculated 0.723. According to Figure 2, it can be seen that significant amount has been obtained the 9.883 for this path, which is not in the range of (1.96 and -1.96). Therefore, it can be concluded that this coefficient is significant at the error level of 0.05. In other word, organizational innovation capability has a significant and positive impact on being innovative. Thus, second hypothesis is confirmed.

Fourth hypothesis: The amount of path coefficient for the relationship between two variables of organizational innovation capacity and Technology capabilities has been calculated 0.548. According to Figure 2, it can be seen that significant amount has been was obtained the 6.508 for this path, which is not in the range of (1.96 and -1.96). Therefore, it can be concluded that this coefficient is significant at the error level of 0.05. In other word, organizational innovation capability has a significant and positive impact on being innovative. Thus, second hypothesis is confirmed.

Fifth hypothesis: The amount of path coefficient for the relationship between two variables of organizational innovation capacity and Amount of export has been calculated 0.844. According to Figure 2, it can be seen that significant amount has been obtained the 8.761 for this path, which is not in the range of (1.96 and -1.96). Therefore, it can be concluded that this coefficient is significant at the error level of 0.05. In other word, organizational innovation capability has a significant and positive impact on being innovative. Thus, second hypothesis is confirmed.

Sixth hypothesis: The amount of path coefficient for the relationship between two variables of Company size and Amount of exports has been calculated 0.118. According to Figure 2, it can be seen that significant amount has been obtained the 1.980 for this path, which is not in the range of (1.96 and -1.96). Therefore, it can be concluded that this coefficient is significant at the error level of 0.05. In other word, organizational innovation capability has a significant and positive impact on being innovative. Thus, second hypothesis is confirmed.

Seventh hypothesis: The amount of path coefficient for the relationship between two variables of Company size and organizational innovation capability has been calculated 0.504. According to Figure 2, it can be seen that significant amount has been obtained the 5.607 for this path, which is not in the range of (1.96 and -1.96). Therefore, it can be concluded that this coefficient is significant at the error level of 0.05. In other word, organizational innovation capability has a significant and positive impact on being innovative. Thus, second hypothesis is confirmed.

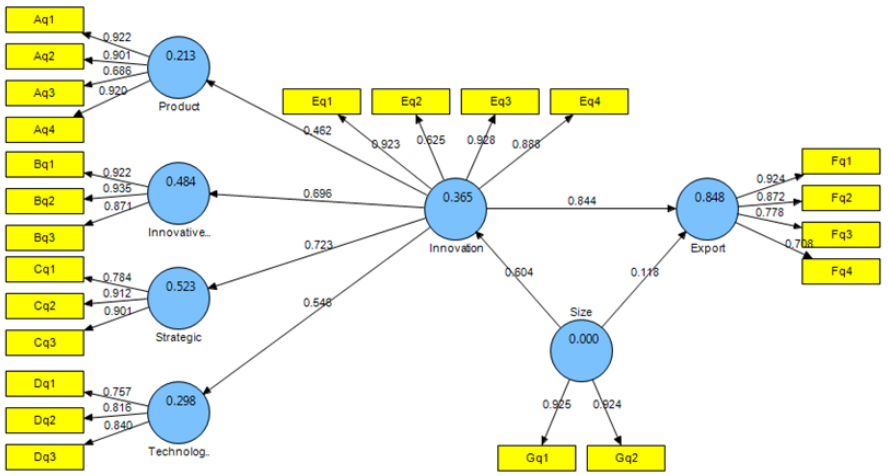

Figure 1: The research model in standard estimation state

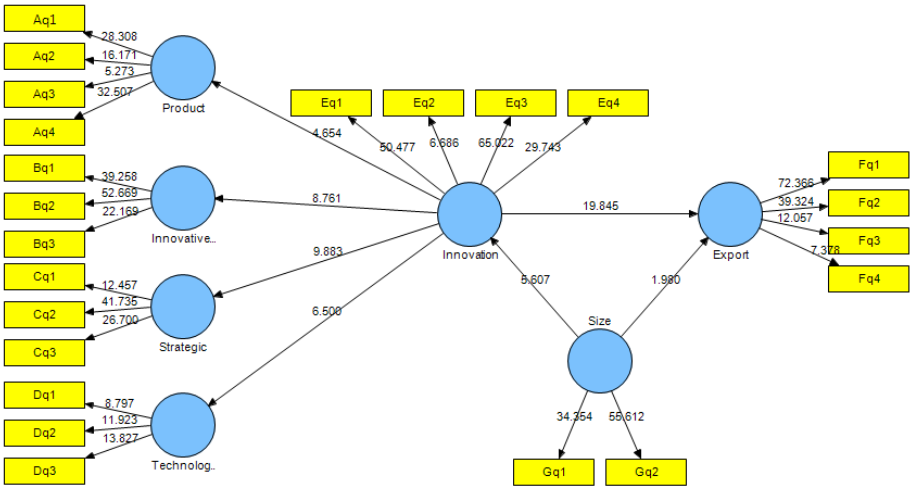

Figure 2: The research model in meaningful parameters (t)

Evaluation of fitting model parameters

To check the quality or validity of the model Validity has been used of the checking validity that includes checking index of subscription validity and checking index of validity of redundancy or redundancy. Subscription index, measures the quality of the model measuring every block. The redundancy index that also known as the Stone-glycerate, with the positive values of these indicators shows the appropriate and acceptable quality of measuring and structural model. In Table 5, has been given the values of each of the indicators related to the dependent and independent variables. As can be seen, the indicators are positive and greater than zero.

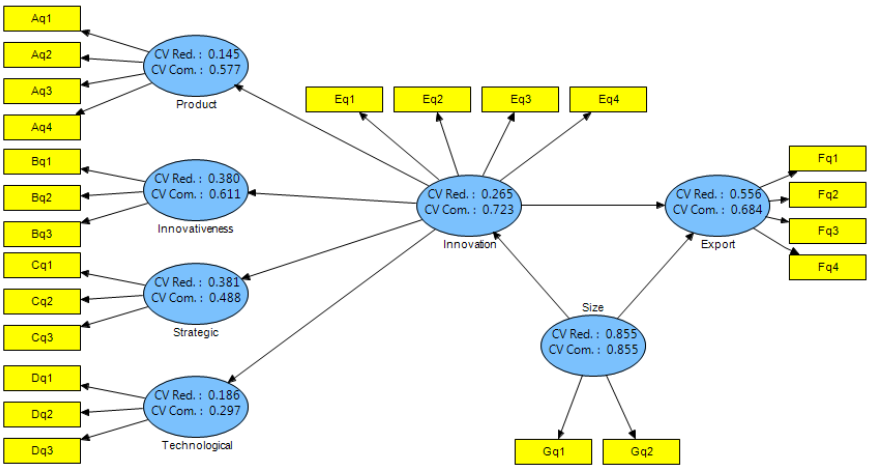

Figure 3: Research model fitting parameters

Table 5: Subscription Indicators (CV Com) redundancy index (CV Red)

Variable	CV Red	CV Com
Amount of export	0.556404	0.683666
Organizational Innovation	0.264709	0.722849
Being innovative	0.380247	0.610844
Product development capability	0.145231	0.577406
size of the company	0.854585	0.854585
Strategic Capability	0.381208	0.487778
Technology capabilities	0.185665	0.297061

Conclusion

Export is one of the most important economic activities affecting the success of various companies, which have been the focus of many researchers and strategists. This amount of attention is very important due to the ease of using this strategy to enter the arena of international competition and also due to the useful features that export has in development and progress of companies. Therefore, companies are always seeking information acquisition and promotion of knowledge export in their own various subsets in order to be able to guarantee their successful performance in the field of export. The amount of success of a company in export can be evaluated by its export performance. Company can be noted among the factors that affect export performance improvement. Innovation capabilities of the company and innovation capabilities dimensions were studied in this research. The results showed that innovation capabilities can have a positive impact on innovation. This research results have been in line with studies of Vicente et al. (2015); Serra et al (2012). But it has not in line with the outcome of the investigation of Palabarbr and Elger (2007) about the size of the organization and the relationship between innovation and exports' amount. The results of their study showed that company size is not a determining factor for innovation and exports' amount. According to the research results, it is suggested to examine the organizational climate on organization innovation capabilities and export performance. The amount of attitudes of managers and organizational innovation and export performance should be also examined.

References

Aditya, A., Acharyya, R., (2013). Export diversification, composition, and economic growth: Evidence from cross-country analysis. J. Int. Trade Econ, 22 (7), 959–992.

Adu-Gyamfi, N., & Korneliussen, T. (2013). Antecedents of export performance: The case of an emerging market. International Journal of Emerging Markets, 8(4), 354–372.

Cassiman, B., & Golovko, E. (2011). Innovation and internationalization through exports. Journal of International Business Studies, 42 (1), 56-75.

Chen, C.-J. (2009). Technology commercialization, incubator and venture capital, and new venture performance. Journal of Business Research, 62 (1), 93-103

Damanpour, F., Walker, R.M. & Avellaneda, C.N. (2009). Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations. Journal of Management Studies, 46 (4), 650-675.

Desarbo, W.S., Di Benedetto, C.A. & Song, M. (2007). A heterogeneous resource based view for exploring relationships between firm performance and capabilities. Journal of Modeling in Management, 2 (2), 103-130.

Dibrell, C., Craig, J.B. & Neubaum, D.O. (2014). Linking the formal strategic planning process, planning flexibility, and innovativeness to firm performance. Journal of Business Research, 67 (9), 2000-2007.

Eivazi, B., Asadi Nasab, H., & Jasemi, M. (2014). The relationship between the desire to export, innovation and small and medium-sized organizations in the industry, the National Conference on Applied Research in Management Sciences and Accounting.

Esteve-Pérez, S., & Rodríguez, D. (2013). The dynamics of exports and R&D in SMEs. Small Bus. Econ, 41 (1), 219–240.

Evangelista, R., & Vezzani, A. (2010). The economic impact of technological and organizational innovations. A firm-level analysis. Research Policy, 39 (10), 1253-1263.

Fleury, A., Fleury, M. T. L., & Borini, F. M. (2013). The Brazilian multinationals' approaches to innovation. Journal of International Management, 19(3), 260–275.

Forsman, H. (2011). Innovation capacity and innovation development in small enterprises. A comparison between the manufacturing and service sectors. Research Policy, 40 (5), 739-750.

Golovko, E., & Valentini, G. (2011). Exploring the complementarity between innovation and export for SMEs growth. Journal of International Business Studies, 42, 362–380.

Guan, J. & Ma, N. (2003). Innovative capability and export performance of Chinese firms. Technovation, 23 (9), 737-747.

Hogan, S.J., Soutar, G.N., Mccoll-Kennedy, J.R. & Sweeney, J.C. (2011). Re conceptualizing professional service firm innovation capability: Scale development. Industrial Marketing Management, 40 (8), 1264-1273.

Hollenstein, H. (2003). Innovation modes in the Swiss service sector: a cluster analysis based on firm-level data. Research Policy, 32 (5), 845-863.

Karam pour, A., & Ebrahimi, A. (2014). The study of competitive strategy and innovation, technical knowledge on export performance. Strategic Management Studies, 18.

Krishnaswamy, K.N., M. Mathirajan, & M.H. Bala Subrahmanya. (2014).Technological innovations and its influence on the growth of auto component SMEs of Bangalore: A case study approach, Technology in Society, 38, 18–31.

Lee, Y., Shin, J., & Park, Y. (2012). The changing pattern of SME's innovativeness through business model globalization. Technol. Forecast. Soc. Chang. 79, 832–842.

O'Regan, N., Ghobadian, A. & Gallear, D. (2006). In search of the drivers of high growth in manufacturing SMEs. Technovation, 26 (1), 30-41.

Pla-Barber. J., & Alegre. J. (2007). Analyzing the link between export intensity, innovation and firm size in a science-based industry. International Business Review, 16, 275–293.

Prange, C., & Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance. Journal of World Business, 46 (1), 126-133.

Rialp, A., Eusebio, R., & Llonch, J. (2004). Innovación tecnológica y resultado exportador UN análisis empírico aplicado al sector textil-confección español. Rev. Eur. Dir. Econ. Empresa, 13 (2), 73–88.

Rodil. Ó., Xavier, V., & María D. C. S. (2015).The relationship between innovation and export behaviour: The case of Galician firms. Technological Forecasting & Social Change, xxx, 1-18

Rubera, G. & Kirca, A.H. (2012). Firm innovativeness and its performance outcomes: a meta-analytic review and theoretical integration. Journal of Marketing, 76 (3), 130-147.

Sattari, B., Haghighinasab, M., Ebrahimi, M., & Roghanian, P. (2013). Identification of Innovative Marketing Strategies to Increase the Performance of SMEs in Iran. IJFPSS, 3 (2), 26 -30.

Sattari, B., Haghighinasab, M., Ebrahimi, M., & Roghanian, P. (2013). The Effect of Channel Function Performance on Relationship Quality with Organizational Buyers: A Case Study in Iranian Food Distribution Company, IJFPSS, 3 (3), 42-47.

Serra, F., Pointon, J., & Abdou, H. (2012). Factors influencing the propensity to export: A study of UK and Portuguese textile firms. International Business Review, 21, 210–224.

Shah Abadi, A., & Sadeghi, H. (2012). The study of the role of innovation and competitiveness on export performance of Islamic countries. Development Strategy, 31, 136-160.

Shakeri, F., Tahari Mehrjerdi, M.H., Dehghan Dehnavi, H., & Kavandi, R. (2011). The study of relationship between organizational climate and process innovativeness, Journal of Production and Operation Management, 2 (1).

Sousa, C.M.P., Martínez-López, F.J. & Coelho, F. (2008). The determinants of export performance: A review of the research in the literature between1998 – 2005.

Stoian, M. C., Rialp, A., & Rialp, J. (2011). Export performance under the microscope: A glance through Spanish lenses. International Business Review, 20(2), 117–135.

Tellis, G.J., Prabhu, J.C. and Chandy, R.K. (2009), Radical innovation across nations: the preeminence of corporate culture, Journal of Marketing, 73(1), 3-23.

Terziovski, M. (2010), Innovation practice and its performance implications in small and medium enterprises (SMEs) in the manufacturing sector: a resource-based view, Strategic Management Journal, 31(8), 892-902

Tsai, K.-H. And Yang, S.-Y. (2013), Firm innovativeness and business performance: the joint moderating effects of market turbulence and competition, Industrial Marketing Management, 42(8), 1279-1294

Verona, G. (1999), A resource-based view of product development, Academy of Management Review, 24(1), 132-142

Vicente. Margarida José Luís Abrantes Mário Sérgio Teixeira, (2015), Measuring innovation capability in exporting firms: the INNOVSCALE, International Marketing Review, 32(1), 29 - 51

Wang, C.L. and Ahmed, P.K. (2004), The development and validation of the organizational innovativeness construct using confirmatory factor analysis, European Journal of Innovation Management, 7(4), 303-313.

Yam, R.C.M., Lo, W., Tang, E.P.Y. and Lau, A.K.W. (2011), Analysis of sources of innovation, technological innovation capabilities, and performance: an empirical study of Hong Kong manufacturing industries, Research Policy, 40(3), 391-402.

Zhou, K.Z. and Wu, F. (2010), Technological capability, strategic flexibility, and product innovation, Strategic Management Journal, 31(5), 547-561.