Evaluating the Factors Affecting SMEs Performance in Iran

Fereshteh Lotfizadeh[1]

Assistant Professor of Marketing, Department of Business Management, Zanjan Branch, Islamic Azad University, Zanjan, Iran

Nasibeh Shamsi

Master of Business Administration, Department of Business Management, Zanjan Branch, Islamic Azad University, Zanjan, Iran

Abstract

Moving toward an open and competitive economy requires developing and supporting private sector and establishing small and medium-sized enterprises. This movement requires education, establishing job infrastructure, and knowledge transfer facilities in order to increase small and medium-sized businesses and also to develop entrepreneurship. These enterprises have affected world economy through four channels, i.e. entrepreneurship, innovation and change in technology, dynamism of industry, and eventually, creating job opportunities and increasing income. In the current study, the researcher tries to answer the question that "whether the innovation and marketing abilities, managers' education, and work experiences have led to an improvement in small and medium-sized enterprises' performances?" This research is performed using descriptive-survey method. The required information was collected by questionnaire, and descriptive and analytical statistical methods were employed in order to analyze the data by using SPSS. The results of the study indicated that there is a significant and positive relation between the innovation and marketing abilities, managers' education, work experiences and the performance of small and medium-sized enterprises.

Keywords: Marketing capability; Innovation capability; Small and Medium-sized Enterprises.

---

[1] *Corresponding author's email: lotfizadeh1981@gmail.com*

Introduction

By looking at the economic and social systems of many developed and newly developing countries, it is observed that establishing and supporting small and medium-sized enterprises is one of the basic priorities in these countries' economic development programs. Although these enterprises need less investment, they will lead to more yields and play an important role in creating job opportunities, establishing an appropriate platform for innovation and inventions, and increasing the amount of exports. The small manufacturing enterprises have significant intangible properties. But they typically have limited resources and investments for manufacturing and marketing; furthermore, their products market is always changing and becoming globalized in such a way that it has reduced their ability to obtain and manage the scarce resources needed for their survival (Safara, et al, 2003).

Compared to big manufacturing units, Small and medium-sized manufacturing units have advantages such as innovation in the products and production processes, high flexibility ability in supplying the needs of the changing market, and quick response to customers' needs, and these small and medium-sized enterprises have played an important and significant role in accomplishing economy's fundamental goals. Manufacturing at economical scale and the profits gained from high volume production have lost its significance in comparison to past or it may have reached new dimensions. Entrepreneurship and innovation are known as the top characteristics of manufacturing actions, and possessing aforementioned advantages, small and medium-sized industries have become the driving force of new economies in 80s and 90s, so that the shares of small industries' employers in creating new ideas and industrial innovations were reported 2.5 times bigger than big industries' employers. Therefore, the small and medium-sized enterprises unit shapes the spine of developed economies all around the world.

While the issue of small and medium-sized industries has a long history in the world, unfortunately not enough attention has been paid to these units in scientific domains, policymaking, and supporting policies formulation in Iran, and it happens despite the fact that small and medium-sized units comprise more than 99 percent of this country's enterprises. These of units include more than 63 percent of employed population in industrial part, and their contribution to economy is about 51 to 52 percent. Therefore, considering the potentials that these small and medium-sized enterprises have in economic and social development of this country, the survival of these enterprises has a significant effect on the increase of employment rate in the country (Javanmard & Gorgin, 2012).

Literature Review

Small and Medium Enterprise (SME)

The issue of small and medium-sized enterprises dates back to late 50s and early 60s, i.e. when the development issues were suggested. The main reason of paying attention to small and medium-sized enterprises is mostly due to entrepreneurship and poverty reduction. All the countries have paid attention to this issue at certain times: Latin

American countries paid attention to small and medium-sized enterprises when the development debates were raised; or in socialist countries when they wanted to convert their market to a free one; and even some developed countries such as Japan, Germany and France paid attention to small and medium-sized enterprises at certain periods (Aramanesh, 2006).

In most countries of the world, the development of small and medium-sized industries is among principal and prioritized policies of states, and a special approach was adopted in order to support the creation, development, and survival of such units. Furthermore, acceleration of global competition, increase of uncertainty, and increasing demand for diverse products has caused people to pay more attention to these industries. However, economic policymakers still pay attention to big industries because of their advantages derived from large scale production, production scope, experience, and organization effects. But the advantages of small and medium-sized industries due to the presence of transportation, market size, regulation, effectiveness of choice, and control effects have made these countries the first choice for manufacturing most of the products (Malekinejad, 2006).

The presence of inflexible and rigid structures has become an obstacle to innovation in some countries. It is obvious that any plan for economic and industrial development of the country, entrepreneurship, non-oil exports development, and innovation is impossible without supporting small and medium-sized industries. The success of small and medium-sized enterprises require paying attention to effective and determinative factors whose recognition needs extensive and detailed investigations. Since due to the consequences of present economic crisis, the industrial production unit of the world is being collapsed and the increased market changes have led to the need for more innovation, and consequently, innovation plans in small and medium-sized enterprises, small and medium-sized businesses which cannot keep up with the current fast-occurring changes will be inactive and static and will not have an active presence in the future without a doubt.

Definition of Small and Medium-sized Enterprises

In Iran, the ministries and organizations do not have an equal definition for small and medium-sized enterprises. According to the definition of Ministry of Industries and Mines and Ministry of Agriculture, small and medium-sized enterprises are industrial and service units (urban and rural) which have less than 50 workers in their staff (Aramanesh, 2006). The Ministry of Cooperation also uses the same definition used by Ministry of Industries and Mines and the Statistical Centre of Iran for these industries. The Statistical Centre of Iran has divided the enterprises into four groups based on the statistic results obtained from industrial workshops: enterprises which have 1 to 9 employers, the ones with 10 to 49 employers, the ones with 50 to 99 employers, and the ones with more than 100 employers (Iran Statistical Center, 2010). This categorization is seemingly similar to the definition of small and medium-sized enterprises by European Union. The Central Bank of Iran also considers the enterprises with less than 100 staff workers as small and medium-sized enterprises (Tabatabayi & Azhdari, 2008).
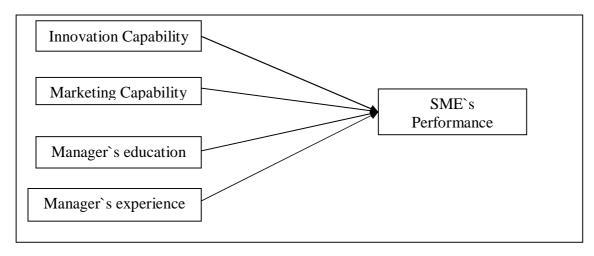
Innovation capability

Kim defined innovation capability as an ability to create new useful knowledge based on previous knowledge. Burgelman has defined innovation capability as a complete set of organizational characteristics which facilitate and support innovation strategies. Innovation capability refers to the implementation and enforcement of technologies to systems, policies, plans, products, processes, tools, or services which are new to the organization. Also, the innovation capability refers to the enterprises' ability to gain and use external data and turn it into new knowledge (Cohen & Levinthal, 1998).

Innovation capability is also known as integration ability; the organizations with innovation capability are capable to make patterns and manage different organizational abilities and resources which successfully encourage innovation activities.

Marketing capability

Marketing abilities are referred to the process of integrating organization tangible and intangible resources in order to understand customers' needs and reach products, and brands different than other competitors. The organizations integrate their employers' individual skills and knowledge with tangible resources of organization in order to improve their marketing capability. The organization which devotes more resources in order to perceive its customers' needs can achieve more abilities in the market; such abilities that are first implemented by this organization, therefore, following and imitating these abilities by other enterprises will become more difficult. Marketing abilities will help to create and maintain a strong relationship between the organization and customers and distribution channel members. In this way, the organization will be able to establish a firm relation with its customers and strengthen the loyalty to organization and its brand. Marketing abilities will help new technical knowledge and new technology to replace the current technical knowledge and technology. Marketing abilities are developed through supplementary processes in order to create organizational values and they cannot be easily created or imitated by competitors (Dolatabadi & Fatemi, 2012). Finally this is our conceptual model and we test these relationships.

Figure 1 Conceptual Model

Research Methodology

In general, it can be said that this research is a fieldwork which is conducted by questionnaires, and since the data collection tools are distributed among the statistical population, the method of this research is descriptive-survey of correlation type. However, this research is considered applied research from the viewpoint of the research's aim.

According to the classification of Iranian Statistical Center, the enterprises and industrial workshops with 10 to 49 employers are considered as small-sized enterprises and enterprises with 50 to 99 employers are considered medium-sized enterprises in this research (Nasehifar & Yarahmadi, 2011).Therefore, the small and medium-sized enterprises which are located in the industrial zone of Zanjan and are about 176 companies consist the statistical population of this research. Also, 121 companies of these small and medium-sized enterprises were selected by random sampling and were considered as the research statistical sample.

Evaluating Reliability and Validity

In this study, Phyra et al.'s questionnaire was used and after some changes, it was distributed among the statistical population. The internal consistency reliability of this questionnaire was evaluated by Cronbach's Alpha and Split-half methods with the help of SPSS software package. The coefficient which is obtained from this research shows the internal consistency of questions and evaluation of a common feature which ranges between 0 and 1. After the distribution of questionnaire among the statistical population, Cronbach's Alpha was calculated to be 0.92 which was a satisfactory result.

Table 1. Cronbach's Alpha Values for Research Variables

Variables / Alpha	Marketing capability	Innovation capability	Managers' Education	Managers' Experience	SMEs Performance
Cronbach's Alpha	0.99	0.98	0.92	0.92	0.97

The Split-half test was done by dividing the questionnaire into odd and even questions and calculating the correlation coefficient between these 2 groups of questions, which showed the internal consistency of questionnaire.

Table 2. Split-half Test Results

Spearman-Brown Coefficient	Equal Length	0.998
	Unequal Length	0.998
Split-half Coefficient		0.995

www.ijmae.com

Face validity method was used in this research in order to evaluate the reliability of the questionnaire. In this regard, the data collection tools were presented to supervisor and other experts in this field in order to collect their ideas and use them in the current study.

SPSS software package and descriptive statistics and inferential statistics indices were used in order to analyze the collected data. Pearson correlation analysis and stepwise regression were used in order to analyze the data inferentially.

Findings

First Hypothesis: Innovation capability has a significant relationship with SMEs performance.

H_0: There is no relationship between innovation capability and SMEs performance.

H_1: There is a relationship between innovation capability and SMEs performance.

Table 3. Correlation Coefficient between Innovation and SMEs performance (Pearson Method)

Dependent Variable / Independent Variable	SMEs Performance	
Innovation Ability	Correlation Coefficient	0.833
	P-value (Significance Level)	0.000
	Sample size	121

According to the above table, it is observed that the calculated test has statistical significance (the model's statistical significance level [Sig value] is less than 0.05). It means that the statistical hypothesis will reject hypothesis 0 and will accept hypothesis 1 with 95 percent confidence level. In other words, there is a relationship between innovation capability and the SMEs performance.

Table 4. T-test Results

Independent Variable	Non-standard Common Factors		Standard Common Factors	T value	Significance Level (p-value)
	B	Standard Deviation	Beta		
Fixed Value	- .307	0.401	-	- 3.257	0.001
Innovation	0.627	0.015	0.969	42.479	0.000

Table 4 represents that innovation variables are significant at 95 percent level. Therefore, they are imported into regression equation. The imported variable in the regression equation is the main core of regression which is presented in the above table. It should be noted that B coefficients, i.e. non-standardized values, are used to predict

dependent variables by independent variables. While Beta coefficients, i.e. standardized values, shows the rate of change in dependent variable for an independent variable unit. It means that for every one-unit change in innovation standard deviation, there will be 96 percent change in dependent variable standard deviation (SMEs Performance).

The T-test regarding regression coefficients is also shown in this table for innovation independent variable, which its value for this variable is equal to 0.000, and therefore, innovation affects the SMEs performance.

Second Hypothesis: Marketing capability has a significant relationship with SMEs performance.

H_0: There is no relationship between marketing capability and SMEs performance.

H_1: There is a relationship between marketing capability and SMEs performance.

Table 5. Correlation Coefficient between Marketing and SMEs performance (Pearson Method)

Dependent Variable / Independent Variable	SMEs Performance	
Marketing Ability	Correlation Coefficient	0.881
	P-value (Significance Level)	0.000
	Sample size	120

According to the above table, it is observed that the calculated test has statistical significance (the model's statistical significance level [Sig value] is less than 0.05). It means that the statistical hypothesis will reject hypothesis 0 and will accept hypothesis 1 with 95 percent confidence level. In other words, there is a relationship between marketing capability and the SMEs performance.

Table 6. T-test Results

Independent Variable	Non-standard Common Factors		Standard Common Factors	T value	Significance Level (p-value)
	B	SD	Beta		
Fixed Value	- 0.922	0.366	-	- 2.517	0.013
Innovation	0.371	0.047	0.573	7.827	0.000
Marketing	0.141	0.025	0.411	5.617	0.000

Table 6 represents that innovation and marketing variables are significant at 95 percent level. Therefore, they are imported into regression equation. It should be noted that B coefficients, i.e. non-standardized values, are used to predict dependent variables by independent variables. While Beta coefficients, i.e. standardized values, shows the rate of change in dependent variable for an independent variable unit. It means that for every one-unit change in innovation standard deviation, there will be 57 percent change in dependent variable standard deviation (SMEs Performance). While for every unit

www.ijmae.com

change in marketing standard deviation, there will be 41 percent change in dependant variable's standard deviation. The T-test regarding regression coefficients is also shown in this table which their values for these two variables are equal to 0.000, and therefore, innovation and marketing affect the SMEs performance.

Third Hypothesis: Managers' education has a significant relationship with SMEs performance.

H_0: There is no relationship between managers' education and SMEs performance.

H_1: There is a relationship between managers' education and SMEs performance.

Table 7. Correlation Coefficient between Managers' Education and SMEs performance (Pearson Method)

Dependent Variable / Independent Variable	SMEs Performance	
Managers' Education	Correlation Coefficient	0.90
	P-value (Significance Level)	0.000
	Sample size	120

According to the above table, it is observed that the calculated test has statistical significance (the model's statistical significance level [Sig value] is less than 0.05). It means that the statistical hypothesis will reject hypothesis 0 and will accept hypothesis 1 with 95 percent confidence level. In other words, there is a relationship between managers' education and the SMEs performance.

Table 8. T-test Results

Independent Variable	Non-standard Common Factors		Standard Common Factors	T value	Significance Level (p-value)
	B	Standard Deviation	Beta		
Fixed Value	- 0.365	0.378	-	- 0.965	0.048
Innovation	0.391	0.045	0.604	8.631	0.000
Marketing	0.084	0.028	0.245	2.969	0.004
Managers' Education	0.659	0.176	0.155	3.741	0.000

Table 8 represents that innovation, marketing, and managers' education variables are significant at 95 percent level. Therefore, they are imported into regression equation. It should be noted that B coefficients, i.e. non-standardized values, are used to predict dependent variables by independent variables. While Beta coefficients, i.e. standardized values, shows the rate of change in dependent variable for an independent variable unit. It means that for every one-unit change in innovation standard deviation, there will be 60 percent change in dependent variable standard deviation (SMEs Performance). While for every unit change in marketing standard deviation, there will be 24 percent change

in dependent variable's standard deviation, and also for every unit change in managers' education standard deviation, there will be only 15 percent change in dependent variable's standard deviation.

Fourth Hypothesis: Managers' working experience has a significant relationship with SMEs performance.

H_0: There is no relationship between managers' working experience and SMEs performance.

H_1: There is a relationship between managers' working experience and SMEs performance.

Table 9. T-test Results

Variable	Beta	T value	Significance Level
Work Experience	0.031	0.717	0.475

According to table 9, the value of significance level is 0.475. Therefore, the variable is not imported in the regression equation because it has no statistical significance. As a result, the fourth hypothesis is not accepted.

Discussion

The results show that small and medium-sized enterprises are more creative than large enterprises in the field of innovation. Their advantages over large enterprises in the field of innovation are flexibility ability and their reaction rate. Due to their innovative abilities, these enterprises play a valuable economic and social role.

They can depart from the traditional focus on products and can improve the products innovation by using new technologies. The small and medium-sized enterprises have affected world economy through four channels, i.e. entrepreneurship, innovation and change in technology, dynamism of industry, and eventually, creating job opportunities and increasing income. Furthermore, acceleration of global competition, increase of uncertainty, and increasing demand for diverse products has caused more interests into these industries. Innovation capability has a key role in the enterprise performance.

Innovation capability can help the company to improve top products in order to respond to customers' change in their needs and wants. Also, complementary innovation (R-C) leads to the innovation-based performance, and their relation will be strengthened by learning abilities. It means that enterprises cannot just rely on the current knowledge in today's competitive environment. Furthermore, enterprises should have marketing abilities in order to present their products to the market and serve their customers faster than other competitors.

The regression equation with three independent variables, i.e. innovation, marketing, and managers' education, and one dependent variable, i.e. performance, will be like the following equation:

0.659 (managers' education) + 0.084 (marketing) + 0.391 (innovation) – 0.365= (performance)

According to the above equation, under stable conditions, with increasing innovation, marketing, and managers' education, performance increases too. It means that if the enterprises have more innovation and marketing in their activities and the managers have higher education, their performances will increase as well.

References

Aramanesh. (2006). The Origin of Problems and the Capability of Quick and Entrepreneur Plans. *Journal of Saderat Bank*, Vol. 39, pp. 10-15.

Javanmard, H., & Gorgin, T. (2012), *Reviewing the Relationship between Entrepreneurial Approach and Marketing Inn ovation with SMEs Performance,* paper presented in The Fourth National Conference of Iranian Innovation Engineering and Management, Tehran.

Dolatabadi, R., & Fatemi, L. (2012) *Analysis of the Effectiveness of Innovation Abilities on Enterprises Performance in Detergent Industries Based on Structural Equation Modeling,* paper presented in the First National Conference of Industries Management and Systems, Islamic Azad University, Najaf Abad.

Safara, F., Dastranjmoghani, N., Heidarinejad, E., & Naderi, K. (2003), *The Development Centers of Information Technology: Dimensions and Challenges,* paper presented at the Ninth Annual Conference of Iran Computer Society, Sharif University, Tehran.

Tabatabayi, S., & Azhdari, A. (2008). *Supporting Policies of Small Industries in Iran with Increasing Exporting Potential Approach*. Tehran: Research Center of Parliament.

Malekinejad, A. (2006). Analysis of Small and Medium-sized Enterprises Role in EconomicDevelopment. *Rahbord-e Yas Journal,* issue 8.

Iran Statistical Center. (2010). *Survey Results of Industrial Workshops with 10-49 Employers.*

Nasehifar, V., & Yarahmadi, M. (2011). Pathology and Prioritization of Government Supports from Small and Medium-sized Enterprises. *Business Reviews,* Vol 51, pp. 98-112.

Cohen, W., & Levinthal, D. (1998). Absorptive Capacity: a New Perspective on Learning and Innovation. *Administrative Science Quarterly*, Vol 35, p.1.

Appendix

Marketing capability
(Adopted from Vorhies and Morgan (2005);
 7-point scale
 1 = ''much worse than major competitors'' and 7 = ''much better than major competitors''

Our firms' marketing activities, compared to our major competitors, in terms of

MC1: Doing an effective job of pricing products has been …
MC2: Test marketing of new products has been …
MC3: Launching new products has been …
MC4: Attracting and retaining the best distributors have been …
MC5: Developing and executing advertising and promotion programs has been…
MC6: Analyzing market information has been …
MC7: Sales management has been….
MC8: Developing creative marketing strategies has been …
MC9: Translating marketing strategies into action has been…

Innovation capability
(Adopted from Hurley and Hult (1998), Calantone et al. (2002) and Salavou et al. (2004);
7-point scale
 1 = ''not at all'' and 7 = ''extensively'')

Within this firm we have activities, routines, business processes and behaviors for

IC1: Exploiting the most-up-to-date technology available…
IC2: Developing new products …
IC3: Extending the firm's product range …
IC4: Improving existing product quality ….
IC5: Improving production flexibility ….

SME performance
(Adopted from Morgan et al. (2009);
7-point scale
1 = ''much worse than major competitors'' and 7 = ''much better than major competitors'')
Our firm's performance, compared to our major competitors, in terms of

P1: Profitability has been….
P2: Return on investment has been….
P3: Reaching financial goals has been….