

The effects of firm and decision-makers characteristics on the banking and export activities of small and medium companies

Omid Maragheh, Mehdi Rouholamini*, Ali Nabavichashme

Department of Marketing Management, Babol Branch, Islamic Azad University, Babol, Iran

(Communicated by Madjid Eshaghi Gordji)

Abstract

The problems of a single product economy and reliance on oil revenues have affected an economy affected by foreign factors, especially the unstable oil revenues. Considering this characteristic of the Iranian economy, the importance and role of non-oil exports can be perceived. Studies on the developed countries indicated that all their economic and product developments have been due to small and medium enterprises. These industries play an effective role in the economic development of the countries through their significant exports. In addition, the intensification of global competition increased uncertainty, and the growing demand for diverse products have made these industries more popular. The current study aimed to investigate the effects of the firm characteristics and decision-makers on the banking and export activities of small and medium companies. It is an applied study in terms of the objective and a descriptive study in terms of method. The statistical population of the current study has been defined in two phases of the experts and authorities. The data were collected by interview and questionnaire in two stages. The Grand Theory method and the second phase, the structural equation model, have been used to analyze the information in the first phase. The results indicated that the management ability, management experience, management commitment, firm size, company financial capacity, company technological capacity, company knowledge capacity, scientific management capacity, purposeful management actions, company innovation capacity, and finally, human resource capacity are among the corporate management factors effective on the banking and export activities of the small and medium companies.

Keywords: Managerial factors, corporate factors, export, small and medium companies
2020 MSC: 90B50, 91B62

1 Introduction

The financial limitations are considered an important constraint for companies' investment in general and their inclination to invest in export trade in specific. The latest international trade literature has focused on the wrong expenditure that companies incur to enter foreign markets. It includes data collection costs from the foreign markets, promotion of product quality, changing the package, and creating marketing channels. Today, the financial department is an important determinant of companies' investment and participation in the export market. The companies that have better access to financial resources can pay the costs relevant to export trade and, as a result, are more likely to

*Corresponding author

Email addresses: Omidmaraghe@yahoo.com (Omid Maragheh), Rouholamini.mehd@gmail.com (Mehdi Rouholamini), Anabavichashmi2003@gmail.com (Ali Nabavichashme)

participate in the export market. A company's capability in the export-to-sale ratio is being increasingly considered as an important indicator of competitive performance. Small and medium companies have been important participators in economic development [7]. The small and medium enterprises include a wide range of home activities to production and service activities. Therefore, it is not surprising that there are no clear, single, and at the same time comprehensive definitions of small and medium activities. Most of the definitions of small and medium enterprises are based on quantitative criteria such as the number of employees, turnover, the value of assets, and the amount of capital. In terms of the qualitative features, the domain and scope of services of small and medium enterprises can be noted. In this regard, most small and medium enterprises only serve the local customers or have a very small share of the existing market and are run by one person or small group who are also known as business owners. However, in the current competitive era, the small and medium enterprises position is distinguished and significant in the international export section. Today, export is the most prevalent method to enter foreign markets. The small and medium companies' low resources commitment and flexibility pave their internationalization. It has been well approved that many companies, especially the small and medium companies, have great export potential. However, a relatively small number of them have been exported. This can hardly happen to small and medium companies that have difficulties accessing the needed budget [13]. The research indicates that the firm characteristics and decision-makers greatly affect small and medium companies' banking and export activities. Small and medium companies play an important role in the economy in our country, although not much attention is paid to exports.

Small and medium companies deal with national products, produce value-added goods, or provide services for consumers or other countries. They make up 90% of the financial businesses and have about 70% share of the GDP and more than 80% share in employment. Therefore, the companies that seek to enter the international trade and exports should have special characteristics. On the other hand, from the viewpoint of the researchers, the tendency to export does not merely include the firm characteristics, but the company's decision-makers should also have characteristics that lead to export. These characteristics are divided into subjective and objective characteristics. Age, education, and English speaking capability are among the subjective characteristics. The research shows that the managers who are more inclined to take risks are more successful in export. Also, they should acquire the knowledge of calculation of cost-based pricing of products and define a new advantage for their products. Commitment to export is committed to strategically allocating resources and proper decision-making in this domain.

The studies have shown that commitment positively correlates with export performance [24]. Today, export is more important in employment, production, economic growth, and providing currency to the companies. On the other hand, the production must be more than domestic consumption, requiring more production for export. In less developed countries facing a shortage of investment, or it is slow, the government must invest in the country's economic infrastructure to attract other investments, including foreign direct investment. It leads to providing the ground for production, or more products, followed by more exports [10]. In the competitive environment of today's businesses, market globalization and mutual communication between the economies is greatly important. Even the companies that go for domestic activities are also influenced by this environment and face international competition challenges. In such an environment, export is a basic strategy for growth and survival. The exporting companies aim to supply goods to foreign markets to earn profits and continuous income and increase competitiveness over time. Identifying factors of export performance to improve the country's export performance is the most important factor in creating a balance between the domestic and international economy.

Due to lack of experience, limited resources, or other obstacles, many companies cannot comprehensively follow export. The export development programs by the government, business organizations, and other organizations are provided to help the countries overcome these constraints and play a key role in encouraging international trade activities. Today's competitive and complicated environment has made entrance to the global markets inevitable. Through export, small and medium companies enter the global markets and need to perceive the factors and elements relevant to their banking and export affairs. Therefore, conducting the current study is greatly significant from a theoretical and practical point of view.

The studies have shown that the firm and decision-makers characteristics greatly affect small and medium companies' banking and export activities. Thus, since according to what was mentioned, the banking and export activities of the small and medium companies play a significant role in the country's economy, in the current study, we have sought to investigate these activities and also answer this basic question that what are the effects of firm and decision-makers characteristics on the banking and export activities of small and medium companies?

2 Theoretical Framework and Related Literature

Investigating factors that affect competitiveness dates back to many years ago and the classic theories about trade and open competition. Based on Adam Smith's Absolute Advantage Theory, division of labor leads to increased economies of scale, leading to increased efficiency. Therefore, the countries can earn more benefits through open trade. Ricardo believed that the difference in technology between different industries and countries could increase the workforce efficiency, so even if the workforce in a country is efficient in the production of two products, if gets professional in producing one product and disregard the other, it would gain a higher comparative advantage. Based on the classic theory (in which trade was made based on the Heckscher-Ohlin Model and with two factors of labor production and capital), the fixed returns of scale and the divisibility of factors of production provide the basis for full competition. Infrastructures, localization of technologies, and utilization of the foreign economies of scale can lead to change in the comparative advantage of the countries.

Finally, in the modern theories of trade, the attention is focused on the concept of competitive advantage. In these theories, the competitive advantage is a situation in which the enterprises, by using superior and more efficient methods, can provide high-quality products and earn more benefit in competition with other enterprises [17]. Therefore, generally, it can be said that although the competition aim has not changed much over the recent years, the tools and prerequisites for the expansion of the competitive power have drastically changed. During these years, the factors effective on competitiveness have changed from workforce quality, the abundance of production resources, and having enough assets to technical knowledge, changes in technology, entrepreneurship, and innovation [18].

Competition is conceptually a struggle between individuals, groups, nations, or companies at the national or international level that might motivate revision and improvement of the activities quality or the increase in product and services sales or realization of the intended goals. The competition leads the commercial firms to produce new products or provide new services to the market, take control of a wider market, and allow the consumers to have more choices and access to products with more quality and better pieces. When there is a monopoly in the market, or the competition level is limited, the consumer's welfare cannot be met by improving the products and services and rationalizing the prices. The competition's ultimate goal is to allocate the community's productive resources in the best way possible and increase the added value, efficiency, and productivity [6]. Countries follow different policies about competition. While supporting domestic competition between production units, some limit the competitive environment for overseas businesses by adopting supportive policies, providing various subsidies, and creating tariff and non-tariff barriers. These measures may detriment the domestic consumers and reduce the competitiveness of the domestic business in the long term [6].

In this regard, Haghighi et al. in a study [8] entitled "Identify the determinants of export performance in the food industry," investigated ten factors, including the firm size, export experience, export incentives, export problems, competitive advantages, export commitment, product adaptation strategy, price adaptation strategy, direct export channels, and foreign advertising costs to help develop the exports and export-related marketing in the domain of food industries. To collect the data, a researcher-made questionnaire was distributed to the food-producing export companies in Tehran province, and then, by the use of structural equation modeling, the data was analyzed. The research hypotheses testing indicated significant correlations between the ten factors and the export performance of these companies. [25] presented a study entitled "investigation of government policies performance on the companies' exports." In their view, the effects of export development programs on the companies' export performance have been less considered in the literature related to the exports. This study has investigated the direct and indirect effects of government-supported exports programs on the companies' performance in a comprehensive model. The indirect effects of exports development programs on companies' exports performance have been conceptualized by a series of organizational and managerial variables for the empirical study. The data in this research were collected from food industries companies in Khorasan Razavi province, and the results indicate no direct or indirect correlations between the export development programs and the exports performance of the companies [1].

Rahmani (2015) [22], in a study on the banks' activities and the reasons behind the quantitative development of these monetary organizations, concluded that in case the banks improve their customer performance, improve their internal organizational management performance and participate in value activities, they can gain more financial resources and gain the ability to operate internationally. Mehregan et al., in a study [16], dealt with an investigation of the competitive advantage in the small and medium petrochemical companies and concluded that in the Iranian small and medium petrochemical companies, the competitive advantage is most dependent on the input resources. In other words, these companies have focused their approach on the resources to create competitive advantage, while according to the scholars, the small and medium companies in the world mainly increase their competitive power by the firm position in the market. Rahman Seresht et al. conducted a study [8] entitled "the competitive advantage model of the manufacturing industries in Iran." In this study, it has been tried to formulate a model to investigate,

predict, and promote the competitive advantage of the industry at the national level by studying the manufacturing industry in Iran. The factors effective on the competitive advantage based on the competitive advantage approaches can be categorized under the domestic and foreign factors. The results indicate that the “firm size” variable plays a more important role in the competitive advantage of the Iranian manufacturing industries. At the same time, the human resources and its capabilities act very poorly in the competitive advantage and the export performance, and during the study period, it has played a minor role in the industry’s competitive advantage.

Masoumi, in a study [15] entitled “Investigating the impact of human capital in the management sector on the competitiveness of banks in the international and export fields,” concluded that achievement of the superior position in the market and keeping this position have become increasingly difficult due to the expansion, diversity, and intensity of the competition on the one hand, and the increase in customers’ expectations on the other hand. Today, the organizations’ advantage to surpass each other lies not in the application of new technologies but the high self-confidence and commitment of the employees to the organizational goals. Regarding the competitiveness of today’s world and the effective role of the workforce in improving organizational performance, this study aimed to investigate the effects of human capital factors on the competitive advantage of financial institutions. The results indicated that human capital affects the competitive advantage strategies (reducing the cost of providing services, differentiating services, and focusing on the customer) in the banks [15]. Raffer [19] in a study investigated the factors effective in the promotion of the banks’ competitive power in Denmark. The results indicated that the government’s policies, prediction of the competitors’ policies, human capital, and market share are among the main factors for promoting the competitive advantage power of the banks [12].

Tavani (2016) [23], in a study, investigating the Swiss banks and the reasons behind their high competitive power, concluded that these banks have managed to have a high position in competition due to the positive policies of government as well as their suitable international interactions and estimation of the competitors’ policies. Kasman and Trugutlu, in a study, investigated the competitive conditions of 38 non-life insurance companies in Turkey during the 1996-2004 period. This study used the Herfindahl-Hirschman index and four-firm concentration ratio to measure the market share. The results indicated that the insurance market in the period under study has not changed, and the recent increase in the focus is indicative of the significant effect of the market share and efficiency of the companies active in Turkey’s insurance industry. Furthermore, despite the insurance industry’s financial liberalization policies and restructuring, this industry still runs in a monopoly [12]. A. Diamantopoulos and N. Kakkos, besides discussing and investigating the process of formulation of manufacturing strategy, have developed a conceptual model for determination of the manufacturing vision in a way that allows the experts to identify the factors effective market share in organization’s competitive advantage. They also studied the successful deployment of this process in six manufacturing organizations. This article investigates the strategy formulation processes and how manufacturing affects the creation of competitive advantage in an organization [5]. The studies have revealed that the firm and decision-makers’ characteristics greatly affect small and medium companies’ banking and export activities. Therefore, since based on the explanations provided, the banking and export activities of small and medium companies play an important role in the country’s economy, in the current study, we aimed to investigate the banking and export activities of small and medium companies and answer the following basic questions:

1. How have the effects of firm and decision-makers characteristics on small and medium companies’ banking and export activities been investigated?
2. What is the main subject of investigation of the firm and decision-makers characteristics effects on the banking and export activities of the small and medium companies?
3. What is the effective causal condition for investigating firm and decision-makers characteristics on small and medium companies’ banking and export activities?
4. What is the effective ground (context) on the investigation of firm and decision-makers characteristics on the banking and export activities of the small and medium companies?
5. What are the effective intervening conditions on the investigation of firm and decision-makers characteristics on the banking and export activities of the small and medium companies?
6. What is the strategy adopted in the firm and decision-makers characteristics on the banking and export activities of the small and medium companies?
7. What is the outcome of implementing the adopted strategy in the firm and decision-makers characteristics on the banking and export activities of the small and medium companies?

3 Methodology

The current study is both quantitative and qualitative, i.e., exploratory research. First, by studying the theoretical framework of the study (library-based) and interview, the information about designing and formulation of the pattern

of human capital efficiency was explored and extracted. In this stage, the interview method has been used. Then, the experts optimized these components, and the final aspects were identified. After this stage, the conclusion and qualitative analysis are dealt with. The next stages include designing the questionnaire to analyze the existing status and collecting quantitative and qualitative data. Generally, it is tried to analyze and interpret the data collected by the questionnaire. The research method in the current study is divided into two separate phases. In the first phase, the method is qualitative in which the Grand Theory and structured interview with the experts (including the managers of small and medium companies in Saveh Industrial Town) are used. In the second phase, the quantitative method is designed based on the data collected in the first phase. This information is submitted to marketing managers to be evaluated, and it is done to validate the model obtained from the first phase. A face-to-face interview with 20 of the knowledge-based enterprises' managers was conducted in the first phase.

It should be noted that the questionnaire was distributed among 80 managers and experts of marketing who had international marketing experience. The statistical population of the study in the first phase is the small and medium enterprises, and the sampling method is purposive. It included 80 managers and experts of marketing who had international marketing experience.

In the current study, the interview was used to collect the data in the first phase, and the questionnaire was used in the second phase. During the interviews, all the opinions and explanations provided by the interviewees were recorded and kept, and comments, along with the researchers' observations and perceptions, were transcribed. After reaching the saturation point in the comments provided by the interviewees, the primary data was input into the MAXQDA Software, and with the help of this software, the primary codes were created. A total of 372 numbers were determined and organized in 6 tables. Then, based on the principle, the secondary coding was done.

Regarding the high number of generated codes, to summarize them, the primary codes were changed into secondary codes based on the similarity of concept and meaning of the primary codes. Finally, in the secondary coding, it is tried to turn several concepts into one category. In the current study, the number of secondary codes is 185, the number of conceptual codes is 73, and the number of categories is 39. In each interview, the codes mentioned to be similar by two persons were taken as agreement, and the different codes were identified as disagreement. Finally, with the help of the below formula, the validity and reliability of the study were evaluated. The results of coding in the process audit are presented in Table 1.

$$\text{intra-subject agreement percentage} = \frac{\text{number of agreements} \times 2}{\text{total number of codes} \times 100} - 1 \tag{3.1}$$

Table 1: The results of coding

Row	Interview title	Total number of data	Number of agreements	Number of disagreements	Re-test reliability (percentage)
1	First	15	5	2	% 66
	Fifth	19	7	4	% 73
2	Tenth	25	8	3	% 64
	Twelfth	30	13	2	% 86
3	Fifteenth	22	9	1	% 81
Total			111	42	12

As shown in the above table 1, the total number of recorded codes by every two persons (the researchers and the participant) is 11. The total number of agreements between these codes is 42, and the number of disagreements is 12. The reliability between the two coders is obtained as 75% by the mentioned formula, which is above 60%, and thus, the reliability of the coding is approved [2]. In this study, two criteria used to test the fit of dimensions are validity and reliability.

$$CVR = \frac{\text{number of experts who have selected the emergency option} - \frac{\text{number of agreements} \times \text{total number of experts}}{2}}{\frac{\text{total number of experts}}{2}} \tag{3.2}$$

The Waltz and Bausell method has been used for Content Validity Index (CVI) [11]. The minimum acceptable value for CVI is 0.79, and if an item's CVI is under 0.79, it should be omitted [20].

Table 2: Investigation of alignment between research variables

Number of experts	CVR value	Number of experts	CVR value	Number of experts	CVR value
5	0.99	11	0.59	25	0.37
6	0.99	12	0.56	30	0.33
7	0.99	13	0.54	35	0.31
8	0.75	14	0.51	40	0.29
9	0.78	15	0.49		
10	0.62	20	0.42		

$$CVI = \frac{\text{number of experts who have scored the item 3 and 4}}{\text{total number of experts}} \tag{3.3}$$

4 Findings

4.1 Open Coding

Open coding is a part of the analysis done by precisely analyzing the data, naming, and coding them. For precise coding of the concepts in the categories, each concept must be labeled after separation, and the raw data should be conceptualized by precise evaluation of the interviews texts and contextual notes. The data collected from the interviewees are coded to identify the similarities and differences more easily. The codes were extracted from interviews with 20 small and medium companies managers in Saveh Industrial Town and were presented by open coding.

4.1.1 Casual Conditions

The respondents answering the questions relevant to each dimension of the model explained the phenomenon related to the firm and decision-makers characteristics effective on small and medium companies’ banking and export activities. The causal conditions of the subject of the current study led to the identification of 52 codes by analyzing the sentences and comments made by these managers.

Table 3: Phenomena and Dimensions

Factors codes	Component	Causal conditions codes
F1	Management power	A1+A2+A3 A6 A18 A24 A25 A26 A27 A28 A29 A32 A33 A37 A43 A49
F2	Management experience	A4+ A10 A11 A12 A13 A19 A20 A47 A48
F3	Management commitment	A5 A15 A34 A42 A53
F4	Firm size	A7 A8
F5	Company’s financial capacity	A9 A39 A40
F6	Company’s technological capacity	A14 A30 A31 A54
F7	Company’s knowledge capacity	A16 A17
F8	Company’s scientific capacity	A21 A22 A23
F9	Management measures purposefulness	A34 A38 A45 A46 A51 A52
F10	Company’s innovation capacity	A35 A36 A41 A44 A50
F11	Human resources capacity	A55 A56 A57

4.1.2 Phenomena and their Dimensions

In the current study, the managerial and firm factors effective on the small and medium enterprises’ export activities have several dimensions and components, divided into 11 categories, evaluated in tables 3 and 4.

Tables 5, 6, and 7 show the contextual factors and strategies, respectively.

The KMO sampling adequacy value for each index is calculated as follows:

Table 4: Division of effective dimensions in the export of small and medium companies

Factors codes	Component	Dimensions
F1	Management power	Management dimension
F2	Management experience	Management dimension
F3	Management commitment	Management dimension
F4	Firm size	Company dimension
F5	Company's financial capacity	Company dimension
F6	Company's technological capacity	Company dimension
F7	Company's knowledge capacity	Company dimension
F8	Company's scientific capacity	Management dimension
F9	Management measures purposefulness	Management dimension
F10	Company's innovation capacity	Management dimension
F11	Human resources capacity	Company dimen

Table 5: Final codes relevant to the contextual factors

Contextual factors	Code
Compliance with government laws and regulations	C1
Political conditions of the country	C2
The economic status of neighboring countries	C3
Interaction of country managers with small and medium enterprises	C4
Gender equality	C5
Cumbersome rules	C6
Obsolescence of laws	C7
Multiplicity of rules	C8
Justice in the appointment of managers	C9
General export strategies in the country	C10
The amount of technology in the industry	C11
Level of industry dynamism	C12
The export market appeal	C13
Export market competitiveness	C14
Country's diplomacy power	C15

Table 6: Final codes of measures and actions in the face of the central phenomenon of research

Strategy	Code
Legal and regulatory strategies and trade policies at the national level	S1
Strategies for technology advancement at the national level	S2
Strategies related to institutionalizing export values (badges, signs, medals, etc.)	S3
Strategies and policies related to facilitating the social and cultural environment of exports	S4
Strategies for developing and upgrading public export-friendly infrastructure	S5
Banking and Export Financing Strategies	S6
World-class manager training and development strategies	S7

$$MSA_j = \frac{\sum_{k \neq j} r_{jk}^2}{\sum_{k \neq j} r_{jk}^2 + \sum_{k \neq j} P_{jk}^2} \tag{4.1}$$

On the other hand, the Kaiser-Meyer-Olkin criterion has a formula as below:

$$KMO = \frac{\sum \sum_{k \neq j} r_{jk}^2}{\sum \sum_{k \neq j} r_{jk}^2 + \sum \sum_{k \neq j} P_{jk}^2} \tag{4.2}$$

Bartlett's statistics are also written as below:

Table 7: Interfering codes and conditions

Interfering conditions	Codes
The short span of management	M1
The goal of achieving political goals	M2
The insignificance of time in the public sector	M3
The multiplicity of state-owned banks	M4
Monopoly in the market	M5
Changes in the field of human resources being time consumable	M6
Organizational culture	M7
Resistance to change	M8

$$\chi^2 = \frac{(N - k) \ln(S_P^2) - \sum_{i=1}^k (n_i - 1) \ln(S_i^2)}{1 + \frac{1}{3(k-1)} (\sum_{i=1}^k (\frac{1}{n_i-1}) - \frac{1}{N-k})} \tag{4.3}$$

In this equation, the following limits should be considered:

$$N = \sum_{i=1}^k n_i \tag{4.4}$$

The mixed variance is calculated as follows:

$$S_P^2 = \frac{1}{N - k} \sum_i (n_i - 1) S_i^2 \tag{4.5}$$

Based on this figure, in Bartlett’s test statistics identified as the ratio of two standard squared normal distributions, asymptotically, the Chi-square distribution of the $K - 1$ of the degree of freedom will be under zero assumption. Thus, if the statistic value is above α -th centile, the assumption would be zero.

$$\chi^2 > \chi_{k-1, \alpha}^2 \tag{4.6}$$

The results of KMO and Bartlett’s tests for the adequacy of the sample size for the causal analysis are shown in Table 8.

Table 8: KMO test

KMO value	Bartlett’s test value	Degree of freedom	Significance level
0.816	5859.655	861	0.00

4.2 Structural Equations

Structural equations modeling is one of the statistical methods that allow for investigating the correlation between several variables in a single model. LISREL, Amos, and EQS software introduced the first generation of this technique. The weak point of these programs is that they need many samples and the normality of the data distribution. The existence of at least three questions for the construct led to the use of the smartPLS software and the introduction of the second generation of structural equation modeling methods. The structural equation modeling consists of the measurement model and the structural model. The model’s variables are divided into latent and observable variables. The latent variables are used at different levels. The structural model section also contains all the constructs in the main research model, and the degree of correlation of structures and the relationships between them is focused on in this section [14].

4.2.1 Measurement Model Section

The reliability test results of data collection instruments calculated by Cronbach’s alpha are presented in Table 9. To calculate the Cronbach’s alpha coefficient, first, the scores of variance of each set of questions in the questionnaire (or subtest) and the total variance should be calculated, and then, the Cronbach’s alpha coefficient is calculated by the following formula (4.7):

$$Ra = \frac{j}{j - 1} \left(1 - \frac{\sum s^2}{s^2} \right) \tag{4.7}$$

Table 9: Cronbach’s alpha values and consistency level

Internal consistency of options	Cronbach’s alpha value
Excellent	$0.9 \leq \alpha$
Suitable	$0.8 \leq \alpha < 0.9$
Acceptable	$0.7 \leq \alpha < 0.8$
Uncertain	$0.6 \leq \alpha < 0.7$
Weak	$0.5 \leq \alpha < 0.6$
Unacceptable	$\alpha < 0.5$

4.2.2 Factor Loadings Measurement

The factor loadings are calculated by calculating the value of correlation between a construct’s indices and the construct itself. If this value is greater than or equal to 0.4, it indicates that the variance between the construct and its indices is greater than the measurement error variance of that construct and the measurement model reliability is acceptable [9]. According to the following figure 1, all factor loadings of the items are greater than 0.4.

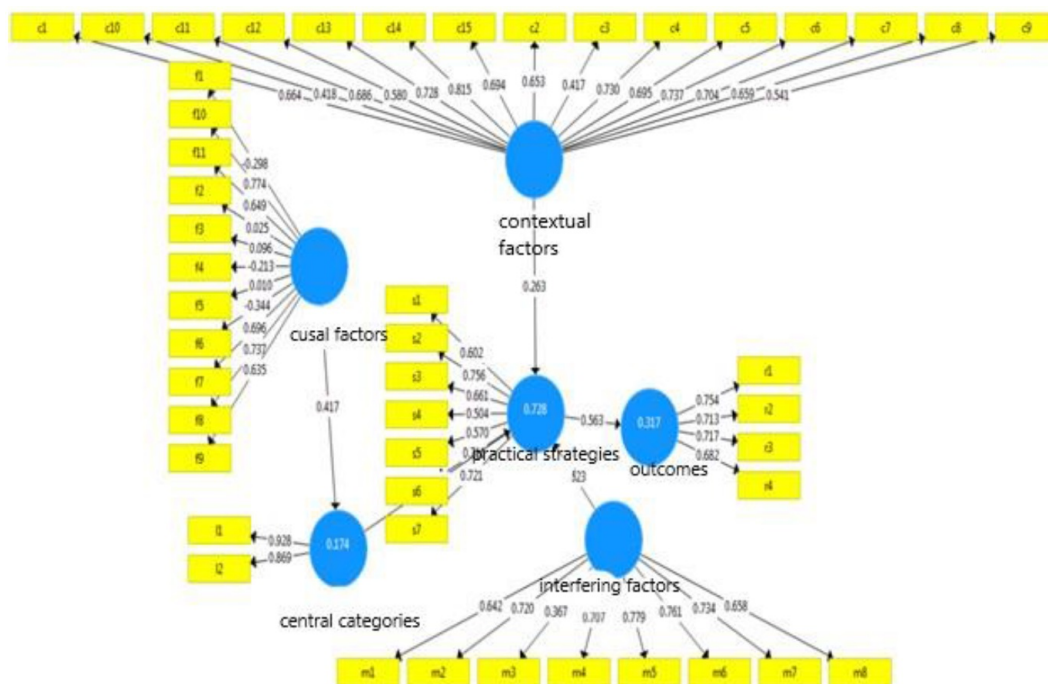


Figure 1: Diagram of components’ factor loadings

4.2.3 Effect Size Measurement Criterion

This model was introduced by [3] and determined the effect size of the correlation between the model’s constructs. Cohen expressed the above criterion in which the values 0.02, 0.15, and 0.35 indicate the small, medium, and large effect size of a construct on another [4]. The criterion of effect size between the constructs is obtained with the

following formula (4.8), and Table 10 represent the value of this statistic for the correlations between the current study's variables:

$$f^2 = (R^2_{\text{included}} - R^2_{\text{excluded}}) / (1 - R^2_{\text{included}}) \quad (4.8)$$

Table 10: F-square statistic

Correlation between variables	F-squares	Effect size
Causal conditions→ practical strategies→ mediating role of central categories	0.154	Large
Contextual factors→ practical strategies	0.044	Medium
Mediating factors→practical strategies	0.441	Large
Practical strategies→outcomes	0.315	Large

4.2.4 Overall Fit of Model (GOF Criterion)

The model's overall fit includes both measurement and structural sections, and through the confirmation of its fit, the fit assessment in a model is accomplished. To assess the model's overall fit, there is only one criterion used, named GOF (Goodness of Fit). It is calculated with the following formula (4.9):

$$GOF = \sqrt{\overline{\text{Communalities}} \times \overline{R^2}} \quad (4.9)$$

The value of $\overline{\text{Communalities}}$ is obtained with the average of the common values of the first-order latent variables. These values for the latent variables are presented in the following table, and the value of $\overline{\text{Communalities}}$ is equal to 0.596.

Table 11: The average of the common values of the first-order latent variables

Latent variables	Average of common values
Causal conditions	0.576
Central categories	0.503
Contextual factors	0.489
Practical strategies	0.537
Interfering factors	0.603
Outcomes	0.272
Average value	0.569

Accordingly, the value of the GOF criterion for the current study is equal to:

$$GOF = \sqrt{\overline{\text{Communalities}} \times \overline{R^2}} = \sqrt{0.571 \times 0.349} = 0.446 \quad (4.10)$$

Regarding the three values of 0.01, 0.25, and 0.36 as the weak, medium, and large effect sizes for the GOF, the obtained value of 0.446 for the GOF is indicative of strong overall fit of the model in the current study.

4.2.5 Assessment of Models with Constructive Indicators

The T-Value is the first and foremost criterion to measure the correlation between the constructs in the model (structural section). If this value is greater than 1.96, it is indicative of the validity of the correlation between the constructs and, subsequently, approval of the research hypotheses (the research hypotheses are the same as approval of the research questions) at the 0.95 significance level. It should be noted that T-values only indicate the validity of the correlation, and the effect size between them cannot be measured by this criterion [4]. The hypothesis testing results are presented in Table 12.

The following model 2 shows the output of pls software in factor loading mode:

The following model 3 shows the output of smartPLS software in Bostraping mode:

Table 12: Research hypotheses testing results

Path	t-statistic	Sign	Result
Causal conditions→central categories	1.97	+	Approved
Central categories→practical strategies	7.664	+	Approved
Contextual factors→ practical strategies	2.13	+	Approved
Interfering factors→ practical strategies	6.62	+	Approved
Practical strategies→ outcomes	10.11	+	Approved

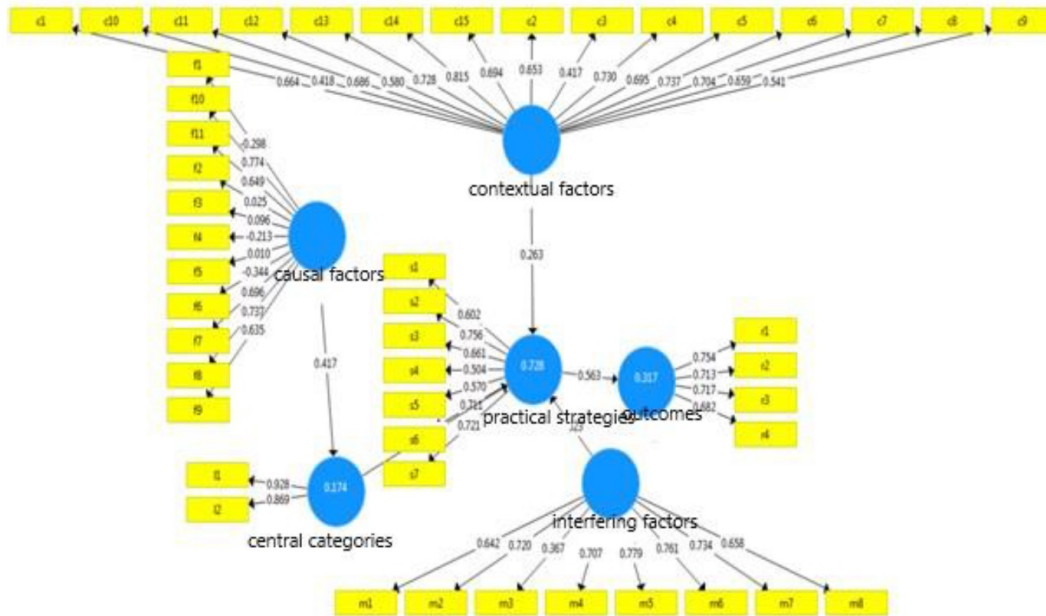


Figure 2: pls software output in factor loading mode

5 Conclusion and Suggestions

The investigations indicated that globalization is a flowing process of political and economic change that increases cultural, economic, and social interactions, besides expanding communications. Globalization has indicators such as trade integrity, fast flow of capital, acceleration in technology exchange, technical advancements, and national economies close to a single economy. Creating a competitive space is one of the most fundamental elements for entering globalization. In other words, creating a competitive platform, paying attention to exports, eliminating the existing barriers, and subsequently, increased competitiveness are among the most important indicators of preparation for globalization. The investigations indicated that small and medium companies play a decisive role in developed countries in this regard. Also, it was indicated that one of the most important factors in the achievement of sustainable economic growth and development is the expansion of exports which is the most important objective of policy-making in international trade. In the Iranian economy, regarding the importance of reduction of country’s economic dependence on the foreign exchange earnings from crude oil exports, and the role of non-oil exports in reduction of this dependence as well as its position in the economic development programs of the country, investigation of the determinant factors of non-oil exports and provision of solutions required for its development is greatly important. The information obtained from the field experts indicated that they consider international trade or exports to be especially important in economic development and name it as the engine for economic growth. Export is the main basis of the social labor division and can meet the need for industrialization and the knowledge and experience required for economic growth. Export, by side benefits, can positively affect the production factor’s efficiency, leading to the increase in total production of the economy. The evaluations also indicated that small and medium companies have a strategic role in realizing the country’s exports. By identifying the firm and managerial components in these companies, the way to realize this important task can be paved. The results of the current study indicated that manager’s entrepreneurial ability, managerial style, manager’s innovation ability, manager’s international work experience, manager commitment to export, manager training, firm size, number of employees, company financial resources, company international experience, scope of company export, company export volume, age of company, technology of the company, use of research done by the manager, multiplicity of the researches in the field of export in the company, possibility

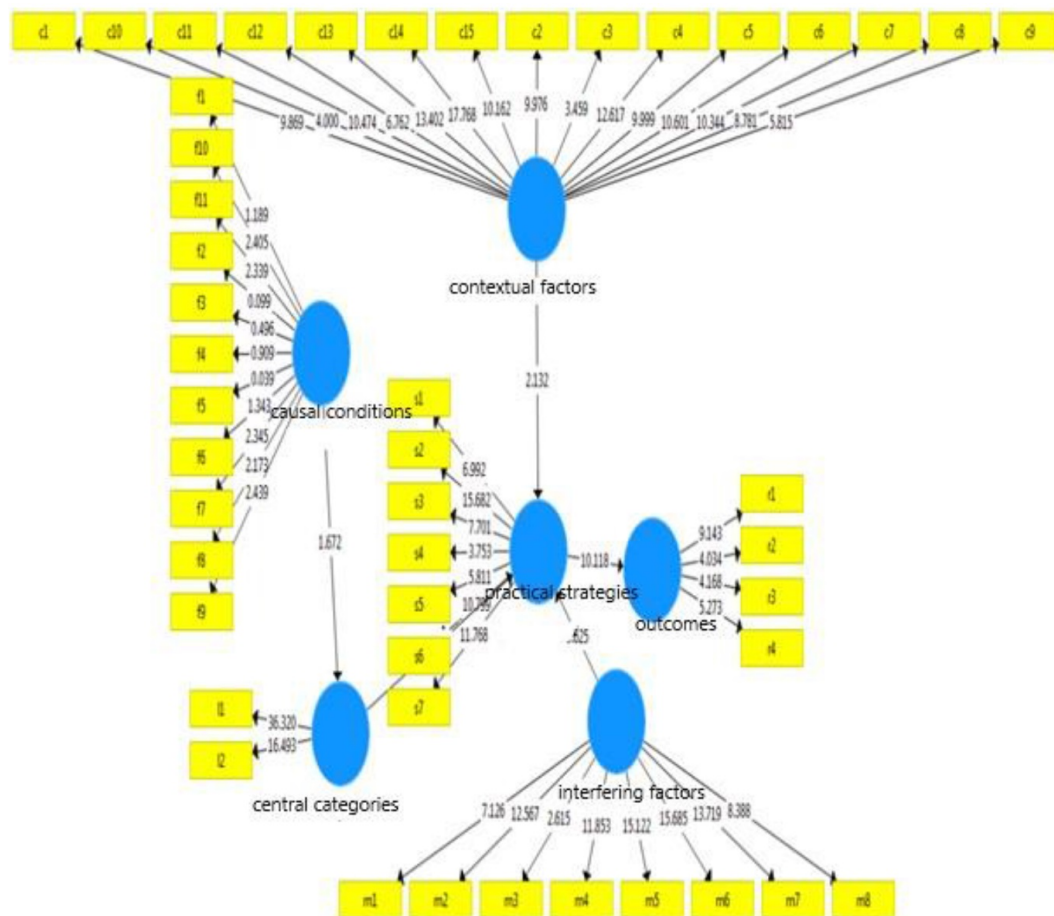


Figure 3: smartPLS software output in Bostraping mode

of visiting international markets, manager's contract signing ability, competitive work experience by the manager, manager age, manager education, manager mastery of foreign languages, influence of state officials on the company's board of directors, managerial emotional intelligence, managerial financial intelligence, managerial cultural intelligence, managers' insight, unique action by the manager, distinctive product of the company, use of distinctive technology, bold actions by managers, managers' willingness to take risks, managers' commitment to export, innovation in the field of market, marketing innovation, manager's quick decision-making ability, company export planning, ability to participate in crisis survival, international investment performance, company brand, cost acceptance by the manager, manager's willingness to take risks, company experience in export, company strategic planning, proportional organization with the objective of export, the company's history in competitive environments, the company's communication capacity, the manager's communication capacity, benefiting from the research done, the manager's perception of export benefits, and the manager's perception of export barriers are all among the firm and managerial factors effective in development of the banking and export activities of these companies.

References

- [1] A. Babakhani, *Measuring and Evaluating The Impact of Factors Determining Export Performance in Manufacturing Companies in Qazvin Province*, Master Thesis, Islamic Azad University, Rasht Branch, 2010.
- [2] A. Bazargan, *Designing and validating ethical leadership assessment tools of the managers at public sectors of Iran*, *Sci. J. Res. Human Resources Manag.* 12 (2020), no. 3, 9–39.
- [3] J. Cohen, *Statistical Power Analysis for the Behavioral Sciences*, Hillsdale, NJ: Lawrence Erlbaum Associates, 1988.
- [4] A. Davari and A. Reza zadeh, *Structural Equation Modeling With PLS Software*, Tehran, Jihad-E-Daneshgahi Organization, 2014.

- [5] A. Diamantopoulos and N. Kakkos, *Managerial assessments of export performance: Conceptual framework and empirical illustration*, *J. Int. Market.* **15** (2007), no. 3, 1–31.
- [6] M. Elmi, *Factors Affecting The Competitiveness of The Economy and Trade and Its Indicators*, Tehran, Commercial Publishing, Trade Development Organization, 2010.
- [7] S.F. Greenaway, K.D. Sullivan, S.H. Umfress, A.B. Beittel and K.D. Wagner, *Revised depth of the challenger deep from submersible transects; including a general method for precise, pressure-derived depths in the ocean*, *Deep Sea Research Part I: Oceanographic Research Papers*, 2005.
- [8] M. Haghighi, M. Firoozian, M. Najafi Majd, *Identifying the determinants of export performance in the food industry*, *J. Bus. Manag.* **1** (2011), no. 1, 2–20.
- [9] P.C. Holland, *Examining the link between plan evaluation and implementation*, *Technol. Forecast. Soc. Change* **74** (1999), 1252–1271.
- [10] M. Hooshmand, M. Daneshnia, Z. Abdollahi and Z. Eskandaripour, *Factors affecting Iran's non-oil exports*, *J. Knowledge Dev.* **17** (2010), no. 34, 14–126.
- [11] F. Karami, *Belaboring the t-so obvious: Consensus, commitment, and strategy implementation speed and success*, *J. Manag.* **26** (2003), 1237–1257.
- [12] A.D. Kasman and E.V. Trugutlu, *Competitive conditions in the Turkish non-life insurance industry*, *Rev. Middle East Econ. Finance* **4** (2007), no. 1.
- [13] S. Lall, *Comparing national competitive performance: An economic analysis of World Economic Forum's competitiveness index*, *QEH, WP* **61** (2001).
- [14] M.C. Mankins and R. Steele, *Turning great strategy into great performance*, *Harvard Bus. Rev.* **2607** (2005).
- [15] O. Masoumi, *Investigating the impact of human capital on bank competitiveness, case study: Agricultural bank of Golestan province*, *Quart. J. Islam Manag. Res.* **1** (2011), no. 2, 127–156.
- [16] M.R. Mehregan, E. Asgharizadeh and H. Safari, *Designing a model for competitiveness at the enterprise level using structured equation modeling, case study: National Iranian petrochemical company*, *Quart. J. Bus. Res.* **12** (2018), no. 46, 1–36.
- [17] M.E. Porter and E.V. Miller, *How information gives you competitive advantage*, *Harvard Bus. Rev.* **22** (2011), no. 3, 118–123.
- [18] M.E. Porter and K. Schwab, *Competitiveness*, The Free Press: New York, 2015.
- [19] C.N. Rafer, *Stimulating scottish and United Kingdom economist through export promotion programs*, in: S.T. Cavusgil and M.R. Czinkota (Eds), *International Perspectives on Trade Promotion and Assistance*, Quorum, New York, 2015.
- [20] H. Rahimi, O. Asghari, F. Hajizadeh and F. Meysami, *Investigation of linear and non-linear estimation methods in highly-skewed gold distribution*, *J. Min. Envir.* **9** (2011), no. 4, 967–979.
- [21] H. Rahman Seresht, V. Nasehifar and H. Arazmjoo, *Framework for organizational change*, *Strategic Manag. Stud.* **6** (2015), no. 21, 15–39.
- [22] A. Rahmani, *Determinants of intangible investments in Iranian firms*, *Manag. Account.* **5** (2015), no. 2, 77–99.
- [23] D.H. Tavani, *Overseas network of export promotion agency and export performance: The Korean case*, *Contemp. Econ. Policy* **29** (2011), no. 2.
- [24] F. Serra, J. Pointon and H. Abdou, *Factors influencing the propensity to export: A study of UK and Portuguese textile firms*, *Int. Bus. Rev.* **21** (2012), 210–224.
- [25] H. Vazifedoost, N. Zarrain, *Examining the performance of government policies on corporate exports*, *J. Int. Bus. Stud.* **23** (2009), no. 4.