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# Interpretive Structural Model (ISM) for Factors Affecting the Development of The Export of Dairy Products

Alireza Dadashi Jokandan <sup>a</sup>, Mirza Hassan Hosseini <sup>b\*</sup>, Rahman Ghaffari <sup>c</sup> and Mohammad Doostar <sup>d</sup>

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## Abstract

Trade internationalization and companies' turn to the global market have become more apparent in recent decades. An increasing number of companies in this space have found an excellent opportunity to expand their international activities to achieve growth, profit and sales, diversity for business risks, and even to compensate for the presence of foreigners in their market. The aim of this study is the identification and prioritize the factors affecting dairy export development. The present study has a mixed and combined approach. In the qualitative section, 18 vital and practical factors of export development were identified through semi-structured interviews with 18 academic experts, export experts, managers, and experts of the studied companies. In the quantitative part, the opinions of 11 industry and university experts have been used by interpretive structural modeling (ISM) to prioritize the factors. Factors were plotted at six levels. Findings from the research process show that economic sanctions and government role-playing factors are recognized as the most important and influential factors, and economic growth, production, and employment prosperity, and economic resilience as the most dependent factors in dairy export development.

### Keywords:

Export development, Export programs, Export development programs

<sup>a</sup> Department of Management, Sari Branch, Islamic Azad University, Sari, Iran

<sup>b</sup> Professor, Department of Management, Payame Noor University, PO Box 3697-19395, Tehran, Iran

<sup>c</sup> Assistant Professor, Department of Management, Sari Branch, Islamic Azad University, Sari, Iran

<sup>d</sup> Associate Professor, Department of Management, Faculty of Humanities, University of Guilan, Rasht, Iran

\* Corresponding author's email: [ri.hosseini@yahoo.com](mailto:ri.hosseini@yahoo.com)

## INTRODUCTION

Trade internationalization and companies turn to the global market have expanded in recent decades. An increasing number of companies have found good opportunities in this space to expand their international activities to achieve such goals as growth, profit and sales, diversity of business risks, and even compensation for the presence of foreigners in their market. In this situation, almost all companies, regardless of their size and industry or nationality, are faced with this fact. They have found that the option of not operating in global markets will soon no longer exist for them. In this regard, and in order to develop trade, economies worldwide are declining to access international markets as well as trade liberalization. Companies have used different approaches to entering the global market, one of which is export development (Nategh & Niakan, 2009).

In Iran's vision, exports are one of the most critical and strategic factors for achieving its development aspirations. However, exports are presently regarded as a by-product of the national economy, surplus production, or the result of normal production flow for consumption which would not be a problem without it. Export leap, a distinct category of export development or growth, means the development of a strategy that covers all parts of the country (Mohammad Kazemi et al., 2016). Business institutions in Iran need a transition from looking at internal markets to looking at global markets, given the necessity of global activity and targeting it. In addition, they should believe in the possibility of competing with other competing companies and in having a fundamental and leading role in the new civilization and its leadership, at the same time they need to prove themselves in the global economy by strengthening this belief and their ability to do it with a well-codified and specific planning and taking advantage of external opportunities by choosing a competitive self-tailored strategy (Imankhan et al., 2009).

Exports provide growth and development

opportunities for companies at the business level. Companies can reach a higher production level by expanding their access to foreign markets. This reduces the unit cost and allows for achieving higher interest rates. Exports provide opportunities for companies to diversify the market. In addition, it allows companies to take advantage of different growth rates in different markets and reduce their dependence on a particular market. Export provides a learning opportunity for the company through competition and makes the company gradually acquire the ability to survive in unfamiliar environments (Hassangholipour et al., 2010).

On the other hand, exports improve companies' performance, including sales volume, market share, profitability, and competitive position. It positively affects employment, foreign exchange earnings, industrial development, and national welfare levels, too (Rahmani Yushanloui et al., 2013).

The study of modern international trade patterns to identify factors affecting the countries' trade is one of the requirements for foreign trade expansion (Harati et al., 2014). It is, obviously necessary to use appropriate models to achieve, improve, and develop the economic models (Sadeghi et al., 2012). Identifying variables that affect export performance is a strategic move and is considered by export managers, government policymakers, and researchers (Movaghar Moghaddam et al., 2011). Therefore, the present study tries to identify and rank the most critical factors that can be effective in developing dairy exports and finally presents a model. The main question that the research aims to answer to what an appropriate model is for the development of dairy exports.

Exports have remarkably grown among other economic activities they are also a vital activity in any economy as they have significantly contributed to employment, trade balance, economic development, and high living standards over the last two decades (Ural, 2009). Export is not just a word, but also has significant and extensive implications for the

country's development, promotion of social welfare, employment and especially employment of the country's educated workforce, promotion of national power, and the reinforcement of links between the national economy and global economy; in addition, it provides national security (Mahmoudi Meimand et al., 2014).

Companies and organizations that are interested and willing to enter foreign markets need to gain an understanding of the world trade system (Ahmadi et al., 2008). There has been no discussion as to why companies moved to international markets until 1960. In the Theory of Industrial Organization, Stephen Haimmer says that every company has a series of internal advantages in its domestic market over foreign companies and a better understanding of its business environment. These advantages can be primarily related to company size, production scale, market competitiveness and marketing skills, technological expertise, or access to cheaper primary resources, including financial resources. Therefore, companies can compete with local companies in foreign markets only by having these advantages (Qaracheh & Shamshiri, 2010).

Global market growth increased the companies' willingness to enter global markets, and most of them have turned to exports to foreign markets. This has led companies to realize that regardless of the country, size, or type of industry, participating in global markets is not a choice but a necessity (Hosseini & Mirjahanmard, 2011). However, many companies cannot or do not want to pursue exports extensively due to a lack of experience, limited resources, or other barriers (Vazifehdoost & Zarrin Negar, 2009).

In brief, the foreign trade effects are divided into direct effects such as international labor division, market expansion, the increasing of investment side effects, resource allocation, and indirect effects such as a supply of materials and needed items, transfer of modern knowledge and technology, transfer of foreign capital, and the triggering and encour-

agement of competition (Saeeda Ardakani & Sayyadi Turanlu, 2012).

Appropriate organizational structure and the use of managers with global ideas and capabilities are the requirements to enter into transnational and global fields. Managers are needed that have deep and forward-looking insights and knowledge and can develop teamwork in the form of global or transnational teams with people participating from different countries and nationalities. Business institutions must go through a transition from looking at internal markets to looking at global markets, considering the necessity of global activity and targeting it, as well as believing in the possibility of competing with other competing companies and believing in having a fundamental and leading role in the new civilization and its leadership. They must show themselves more and more in the global economy, while strengthening this belief and the ability to do it with specific planning and taking advantage of external opportunities and choosing a suitable competitive strategy with themselves (Imankhan et al., 2009).

Export development is one of the policies governments choose in the framework of foreign trade patterns. This policy promotes growth by increasing domestic production and employment and improves the balance of payments by transferring foreign exchange and capital resources. Therefore, in the context of this policy, the export sector is subject to all kinds of protections, and governments provide the expansion fields by facilitating the access of exporters to financial and capital resources, such as subsidies, currency at preferential rates, cheap credit resources, tax protections, tariff and non-tariff actions, information about target markets, recognition of competitors, insurance and so on (Ghasemi, 2008).

Growth in international trade exposes companies to increased international competition in their domestic markets through imports and foreign ownership of the subsidiary. However it provides opportunities for

companies to sell products and services in foreign markets simultaneously. Increasingly, when industries internationally become competitive, those that limit their activities to domestic markets will find that their competitive advantage is declining. Exports can help powerful parts of the domestic industry by setting economic benchmarks, especially for companies with small markets. Export development is not easy, and it is necessary to have favorable conditions and factors in selling more goods and services to foreign buyers, not only to satisfy foreign consumers into quality, price, supply conditions, marketing, and after-sales service, but also to face experienced and practiced competitors in this field.

It is impossible to advance export development policy without studying the problems and impasses and more carefully investigating export markets and their development facilities and limitations. Therefore, expanding exports to balance foreign trade is a tool to get rid of oil dependence, create jobs, earn currency, diversify production, transfer technology commensurate with national resources, etc., in line with the goals of socio-economic development.

Given the government's point of view, export development programs aim to enhance the international competitiveness of domestic enterprises and the perspective of domestic enterprises. Export development programs are intended to encourage, persuade, and increase firm's incentives to export. Therefore, evaluating the effectiveness of export development programs is a crucial step to achieving sustainable economic growth in a country (Dadashi Jokandan et al., 2015).

Several factors may extend a company's operations to the international field. One of these factors is the attack of foreign competitors on the domestic and local markets of a company by offering commodities at better prices. The company may launch a counter-attack to engage competitors' resources and facilities in their markets. Alternatively, the company may conclude that operating in a

foreign market is more profitable than in a domestic market. The company's internal market may be shrinking, or it may consider it appropriate to enter new markets to produce more and take advantage of economies of scale. The company's goal in entering foreign markets may be to break the dependence on a market and eliminate the risks of such dependencies. Another factor is that the company's customers are expanding worldwide, and this requires the company's service to be international. Mass production and excessive goods inventory are other factors that force companies to enter new product markets (Ahmadi et al., 2008).

In summary, the emphasis on export development provides the possibility of optimal allocation of global resources (Kazeruni & Nasibparast, 2014). Increasing a country's export volume by importing foreign exchange resources into that country provides a good platform for productive investments. Therefore, it seems necessary to pursue policies to attract the market of export destination countries. However, the lack of sufficient knowledge of the structure and business models of destination countries and the lack of optimal allocation of prizes have impaired the effectiveness of this policy. The positive effects of applying this policy on increasing exports, lack of attention, and insufficient research in this field reveal the importance of research on it (Poorebrahim & Esmaili, 2010).

Increasing non-oil exports and revenues from them have always been considered by officials in Iran's macro-policies, and to achieve this, various efforts have been made to encourage non-oil exports by resorting to various monetary, financial, trade, and foreign exchange policy tools. The increase in exports and its development, like any economic variable, is subject to various factors such as production, exchange rate, commodity prices, importing country's income, and so on. The factors affecting exports will have different effects depending on the type of goods and products. It is, therefore, crucial to study the factors underpinning exports to use them

as a basis for determining important variables and appropriate policies to achieve the development of exports of goods and services (Pasban, 2006).

To succeed in global competition, it is suggested to investigate and identify harmful and limiting legal, social, and cultural factors that affect the presence in international markets, provide organizational procedures and structures in managers' businesses with different cultures, familiarize managers with culture and its advantages in global competition, have the correct performance to succeed in the most critical world markets (North America, Europe, and Asia), produce and supply new products, stop selfishness, for which it is essential to educate people on global and international thinking and send them abroad and equip them with the most advanced communication systems, allow external employees to be at high levels of management, to do the best as per the situation and even change key managers, and to form a coalition when it is impossible to enter the markets singly (Naej Haghighi & Salarian, 2014).

Export development programs refer to all public policies and programs designed to assist firms' export activities, from consulting, tax incentives, and export financing to trade exhibitions and sales development assistance. Gantrak & Kotabeh (2001) present export development programs as a ready external source for acquiring information, trade, and knowledge and creating a new capacity to cope with export complexities. Also, cost reduction, integration of target market information, export credits and loans, reduction of finished product prices, and subsidies are some items that are directly provided by export development programs and have a direct impact on a firm's export performance. In other words, these programs are aimed at creating awareness of opportunities and planning and increase the exporting capacity of the organization, which provides opportunities for cost-sharing.

Export development programs aim to promote the international competitiveness of

domestic enterprises from the government's viewpoint and encourage and increase the firm's incentives to export from the domestic enterprises' viewpoint. Therefore, evaluating the effectiveness of export development programs is a crucial step to achieving sustainable economic growth in a country (Moshabbaki & Khademi, 2012).

Governments can play a crucial role in encouraging foreign trade activities of domestic firms through export development programs (Zarei et al., 2016). Shams Al-Doha (2004, 2006) examined the effect of export development programs on the firm's export performance among small and medium-sized enterprises (SME) and the effect of export development plans on the firm's export performance by influencing the internal components of performance comprehensively. He adopted a resource-based view and limited the effects of export development programs to intra-organizational components such as strategy, knowledge, perception, and commitment concerning exports. He divided export development programs into a limited category of market development programs and programs related to export guarantees and credits after carefully reviewing the literature.

### Literature Review

Karbasi et al. (2018) studied the export development strategies in Khorasan Razavi province, Iran, and the expansion of economic cooperation with Central Asian countries. The results show that the most critical problems of exports are domestic provinces. External problems such as political relations with target countries and prohibitions carry little weight in inhibiting exports. The most significant obstacles to export development are the embassies' support, the inactivity of trade advisers in the target countries, acting as an island by government agencies, the final cost of goods, and political problems with Central Asian countries. Solid infrastructure for exports, such as the Serakhs Special Economic Zone and production potentials within

the province, are among the components affecting the province's export development. [Mirjalili et al. \(2018\)](#) investigated the factors affecting the development of exporting knowledge-based (high-tech) products in selected countries using the panel data model for the 2015-1995 period. They conclude that foreign direct investment, actual effective exchange rates, governance index, and the openness of the economy have a positive and significant effect on the export of high-tech knowledge-based products. It is also reported that the impact of information and communication infrastructure is positive and significant only in developed countries, and the coefficient of this variable is negative and significant in developing countries. In a study on the impact of effectiveness and marketing capabilities and market-oriented exports on export performance of a Turkish case, [Kayabasi and Mtetwa \(2016\)](#) concluded that market-oriented exports had a significant effect on marketing capabilities and marketing effectiveness. On the other hand, marketing effectiveness was found to have a significant effect on export performance. It also indicates that market-based exports are central to marketing capabilities development, while marketing effectiveness helps to assess export performance.

[Mosleh and Saeedi \(2015\)](#) studied the impact of network capabilities on the international performance of export and import companies they reported that network characteristics, network operations, and network resources had a positive and significant effect on the international performance of export and import companies.

[Musakhani and Shahravanmehr \(2015\)](#) addressed factors affecting the development of exports in the food industry SMEs in Qazvin province they revealed that the critical factors affecting the development of exports were market knowledge and marketing, export policies, packaging, industry structure, currency transfers, prices, and competitors, respectively.

In an attempt to identify the determinants

of the export performance of exporting tea companies, [Rahiminezhad and Alipour \(2015\)](#) found a positive and significant relationship between integrated marketing tactics and export performance, integration of competitive tactics and perceived competitive advantage, perceived competitive advantage and export performance, the export experience of managers and the integrated marketing tactics, and finally, the export experience of the managers and the export performance of tea exporting companies.

[Sarmad Saeedi et al. \(2015\)](#) investigated the impact of export promotion programs the export performance of firms' exporting technical and engineering services and concluded that the use of export promotion programs did not directly affect export performance, but it had an indirect positive and significant effect by influencing export-related capabilities and export marketing strategy.

[Alimohammadi et al. \(2014\)](#) studied the role of competitive export advantages in export performance and concluded that six factors played a vital role in the development of food industry exports. They included product development, e-commerce, marketing planning, organizational performance, competition, and supply chain management.

[Elahi et al. \(2014\)](#) focused on the effect of mixed marketing strategy on the export performance of the food industry they revealed that all factors of mixed marketing strategy had a significant effect on export performance, while the product had the highest impact and export channel had the lowest impact on export performance.

[Mohamed and Al-Shaigi \(2014\)](#) explored the effects of marketing strategy on export performance in a case study of the export performance of the Sudan Arab Company. They showed that the adoption of an inappropriate marketing strategy by the Arab Gam Company reduced export revenue and Sudan's global market share.

In a study on the impact of internal factors on export performance in a case study on Tehran pistachio exporting companies, [Sho-](#)

jaei et al. (2014) concluded that internal company factors such as managerial characteristics and access to internal resources had positive and significant effects on export performance.

According to Taghavi Shavazi et al. (2014), who addressed an e-commerce development model and its effects on home appliance companies, environmental, organizational, and managerial factors play a role in e-commerce development in the organization. Mahdavi et al. (2013) studied the factors influencing cooperatives' readiness to export global markets in a case study on Hormozgan and Fars provinces. They found a positive and significant relationship between the export marketing management factors, financial and managerial factors, trade system knowledge, factors of the export marketing environment, market segmentation and export marketing mix and the cooperatives' readiness to enter the global date market. Indeed, 86.7 percent of the variance in the readiness of cooperatives to enter the global market was accounted for by the variables of export marketing management and the financial ability of cooperatives. Seif and Hafezieh (2013) focused on international trade strategies of the resistance economy in Iran. They concluded that Iran could achieve growth and prosperity and deal with external threats and internal weaknesses by using the vast natural God-given resources, reliable and efficient human resources, and scientific capacities, changing methods, reforming and continuously improving programs in the domestic dimension, promoting efficiency, mobilizing diplomacy and actively being present in regional and global treaties and nuclei deals, identifying new (commodity-space) markets, interacting with the international economy with wisdom, dignity, and expediency, and using the transit capacity and the opportunity for direct access to free waterways in the external dimension. All of these indicate that Iran can deal well with the existing threats, including sanctions, by applying the resistance economy approach in trade

with the world, while advancing its ideals and goals. Karampour et al. (2012) provided a model to evaluate the impact of components of a resource-based approach on export performance based on cost leadership strategy in the mineral industry. The results indicate the importance of competitiveness compared with other components of the resource-based approach (competitive resources and organizational systems) in determining the competitive strategy of minimum cost and export performance of selected companies. Poorebrahim and Esmaili (2010) studied the effect of export awards on export development in Iran's agricultural sector. They concluded that absorption factors had a significant impact on Iran's agricultural exports (population, Gross Domestic Product (GDP), and distance). In addition, the positive and significant effect of export awards on increasing agricultural exports was confirmed, and also the impact of these awards was revealed through the impact on gravity factors. Given that the effect of factors affecting agricultural exports may not be instantaneous, the dynamic gravity model was estimated to separate short- and long-term attractions. The results from this model showed that export awards are influential in both short-term and long-term periods, but the effectiveness of awards is more significant in the long run. It is, therefore, necessary to act on incentive policies with long-term goals. Tuyserkani and Farzizadeh (2010) attempted to identify and rank the factors affecting the development of software exports in Iran and found that effective communication through agencies and foreign offices, the existence of appropriate infrastructure, per capita income, the presence of expert staff in the software industry, the facilities required for personal and business life, the expansion and development of the industry, strict government policies, training of human resources, and investment in the software industry were the most critical factors affecting software exports, respectively.

Imankhan et al. (2009) reviewed the com-

petitive strategies of top Iranian exporting companies in 2007. They reported that some Iranian companies had better and more distinctive quality than top companies but had unfortunately failed to find their place due to their low production volume and the number of exports. Since research is not appreciated in Iran adequately, Iranian producers do not have adequate knowledge about different markets. As long as Iranian companies use a cost-leadership strategy, they will certainly not be recognized as a first-class producer and will not be able to increase their export. In these conditions, the government can take care of the producers' concerns over price reduction. The need to reform macroeconomic policies and implement Article 44 is felt more than ever. Sometimes, the non-compliance of export-quality commodities with international standards is an obstacle for Iranian exporters. The government should open new markets for Iranian exporters by holding exhibitions in countries that are suitable markets for Iranian products. [Fraser et al. \(2005\)](#) examined the benefits of e-commerce over exports. They concluded that e-commerce had reduced intermediation and purchasing costs, improved data collection and processing, and expanded market share by creating new markets. They recommended that companies provide the necessary infrastructure to use e-commerce ([Hassanpour, 2014](#)). [Payva \(2005\)](#) examined the role of export promotion policies with gravity model and panel data for different countries and showed that export incentives increased exports and reduced imports of agricultural products. This study also clarified that these policies in industrialized and developed countries had a more significant impact on export development than in developing countries ([Poorebrahim and Esmaili, 2010](#)).

### METHODOLOGY

This research is considered an applied study in terms of purpose and an exploratory study in data collection implemented by a mixed approach. This qualitative and quantitative study

was conducted in 2019. The research reviewed 18 academic experts, export experts, managers, and experts of the studied companies in the qualitative participants' part. The main criterion for inclusion among participants was to be an academic faculty member in the fields of business and government management, and the criterion for the inclusion of export experts, managers, and experts of companies was to have the basic knowledge, skills, and experience in sales, production, finance, research, marketing, and export. The sample for the qualitative phase was taken by the snowball technique. The sources of data collection were classified into two categories. Primary sources included individual, face-to-face, in-depth semi-structured interviews (with open questions), which were recorded. Secondary sources included theoretical foundations of research, journals, books, and magazines. The interview questions were open, and answering one question may have led to another, to keep the interview out of the interviewer's control, eight following critical questions were asked during each interview along with other questions:

What do you think the factors affecting the development of exports (in general and dairy products, in particular) are?

What is the role of marketing, branding, and monitoring of competitors in export development?

What is the government's role in export development (dairy products)?

What is the role of export development in realizing a resistance economy?

How does export development affect the economic, social, political, and cultural dimensions of Iran?

What are the most critical obstacles to the development of dairy exports?

What are the most essential characteristics of successful dairy companies?

If you think there is an important point that is not mentioned, I would be happy to hear it.

Interviews were conducted informally. The total interview time was 530 minutes, and the average was 30 minutes. The grounded

method was used for data analysis, which was done immediately after the implementation of each interview, and field notes were taken along with the interview. The details of the interviews are presented in Table 1.

In the quantitative phase, the opinions of 11 industry and university experts were used to prioritize the factors by building a structural self-interaction matrix using the interpretive structural modeling method.

In general, the main idea of interpretive structural modeling is to break down a complex system into several subsystems using the practical experience and knowledge of experts to build a multi-level structural model.

Applying the interpretive structural modeling technique consists of seven steps as follows:

Identifying and determining elements and variables;

Forming structural self-interaction matrix (SSIM);

Forming initial access matrix;

Forming final access matrix;

Determining relationships and leveling elements;

Drawing diagrams;

Analyzing the influence and degree of dependence.

Table 1  
*Characteristics of Interviewed Participants*

Row	Organization	Organizational position	Gender	Interview date	Interview duration
1	Guilan University	Faculty member	Male	2018-1-21	26 min
2	Chairman of Guilan Foreign Investors Facilitators Association	Executive director	Male	2017-3-21	25 min
3	Vice President of Planning and Information Technology of Region (1) Pegah Bazargostar Co.	Executive director	Female	2018-1-21	63 min
4	Export Department of Pak Co.	Expert	Female	2018-1-23	32 min
5	Export Department of Mimas Co.	Executive director	Male	2018-1-23	40 min
6	Payame Noor University	Faculty member	Male	2018-1-27	15 min
7	Management of Adeli Co.	Executive director	Male	2018-1-27	
8	Tehran University	Faculty member	Male	2018-2-2	18 min
9	Payame Noor University	Faculty member	Male	2018-2-2	11 min
10	Food, Pharmaceutical, and Health Industries Management of the Ministry of Industry, Mine, and Trade	Executive director	Male	2018-2-5	20 min
11	Allameh Tabatabaei University	Faculty member	Male	2018-2-8	25 min
12	Sales Management of Kaleh Co.	Executive director	Male	2018-2-11	23 min
13	Management of Khatoon Gilan Co.	Executive director	Male	2018-2-11	33 min
14	Imam Sadegh University	Faculty member	Male	2018-2-13	16 min
15	Sales Management of Mihan Co.	Executive director	Male	2018-2-15	21 min
16	Public Relations Management of Mazandaran Commerce Chamber	Executive director	Male	2018-2-15	30 min
17	Management of Gela Co.	Executive director	Male	2018-2-20	74 min
18	General Secretary of Professional Managers Association and Entrepreneurs of European Union	Executive director	Male	2018-2-20	27 min

## RESULTS

### *Step 1: Identifying and determining elements and variables*

In the first step, the desired elements concerning the studied subject are first identified and determined. In the present study, based on the opinions of 18 experts and using the Foundation's data method, a total of 18 factors affecting the development of dairy products were identified, and the presented factors were approved by several faculty members, as presented in [Table 2](#).

### *Step 2: Structural self-interaction matrix (SSIM) formation*

At this stage, the relationships between the identified elements are evaluated using interpretive structural modeling and conceptual relationships. Finally, a matrix called the structural self-interaction matrix is developed for the elements, which shows the paired relationship between them.

### *Step 3: Initial access matrix formation*

The initial access matrix is obtained by converting the structural self-interaction matrix into a dual value matrix (zero and one). The symbols in the previous step matrix must be converted to A zero and one matrix to obtain this matrix. Based on the following rules, the initial access matrix can be obtained, which is summarized in [Table 5](#)

- If the cell (j and i) in the structural self-interaction matrix has symbol V, the corresponding cell in the access matrix gets value 1, and its symmetric cell, i.e. the cell (i and j), gets value 0.

- If the cell (j and i) in the structural self-interaction matrix has symbol A, the corresponding cell in the access matrix gets value 0, and its symmetric cell, i.e. cell (i and j), gets value 1.

- If the cell (j and i) in the structural self-interaction matrix has symbol X, the corresponding

Table 2

*The Factors Affecting the Development of Dairy Exports Based on Interviews with Experts*

No.	Factor	No.	Factor
1	Economic foresight	10	Dynamic employee participation
2	Export supports	11	A strategic export-oriented marketing document developing
3	Realization of resistance economy macro policies	12	Empowerment of scholarly human capitals
4	Business diplomacy	13	Architecture of business negotiations
5	Economic sanctions	14	Business intelligence
6	Government role-playing	15	Competitiveness improvement
7	Technological and up-to-date production	16	Economic resilience
8	Competitive organizational atmosphere	17	Economic growth
9	Efficient supply chain logistics	18	Prosperity of production and employment

Table 3

*Guidance to Create Conceptual Relationships Between Export Development Factors*

Symbol	Symbol Meaning
V	i leads to j (row leads to column)
A	j leads to i (column leads to row)
X	There is a mutual relationship between i and j
O	There is no valid relationship between i and j

Table 4  
Structural Self-interaction Matrix to Support Dairy Health Services

i	j	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Economic foresight	*	V	V	x	A	A	V	A	A	A	V	V	V	V	A	V	V	V	
Export supports		*	V	A	A	A	A	X	X	V	A	A	A	A	V	V	V	V	
Realization of resistance economy macro policies			*	V	A	A	V	A	V	A	V	A	V	A	A	V	V	V	
Business diplomacy				*	A	X	V	V	X	V	V	V	V	V	V	V	V	V	
Economic sanctions					*	V	V	V	V	V	V	V	V	V	V	V	V	V	
Government role-playing						*	V	V	V	O	V	O	V	V	V	V	V	V	
Technological and up-to-date production							*	X	A	X	A	X	X	A	V	V	V	V	
Competitive organizational atmosphere								*	V	V	A	X	V	O	V	V	V	V	
Efficient supply chain logistics									*	V	A	A	A	A	A	V	V	V	
Dynamic employee participation										*	A	X	X	V	V	V	V	V	
A strategic export-oriented marketing document developing											*	V	V	X	V	V	V	V	
Empowerment of scholarly human capitals												*	X	V	V	V	V	V	
Architecture of business negotiations													*	A	V	V	V	V	
Business intelligence														*	V	V	V	V	
Competitiveness improvement															*	V	V	V	
Economic resilience																*	X	V	
Economic growth																	*	X	
Prosperity of production and employment																			*

Table 5  
Guidance for Converting Symbols to Two-valued Values

Conceptual Symbol	Relation i to j	Relation j to i
V	1	0
A	0	1
X	1	1
O	0	0

cell in the access matrix has value 1, and its symmetric cell, i.e. cell (i and j), also gets value 1.

- If the cell (j and i) in the structural self-interaction matrix has symbol O, the corre-

sponding cell in the access matrix has value 0, and its symmetric cell, i.e. cell (i and j), also gets value 0.

*Step 4: Final access matrix formation*

Once the initial access matrix is complete, its internal compatibility must be checked and established. In other words, in this step, the expansive and secondary relationship between elements must be examined to adapt the direct access matrix. Thus, if (j and i) are related and (K and j) are related, then (K and i) are also related. Simply put, if i leads to j and j leads to K, then i must lead to K, and if this relation is not formed, the matrix must be modified to form the case.

*Step 5: Determining relationships and leveling elements*

The fifth stage is determining relationships and level elements with other topics, such as determining the early and late sets or forming a conical matrix. Each element has two different early and late sets that play an essential role in the final matrix structure and the system design. A set of outputs (or a last set) and a set of inputs (or an earlier set) must be extracted for each element from the received matrix to determine the relationships and level elements. After determining

the output and input sets for each element, their leveling is done by obtaining the commonality of two sets. In Table 1, a variable in the first level will be the output set, and its standard set is precisely the same. After determining this variable or variables, they are eliminated, and the process is performed on other factors. The results of determining the set of inputs, outputs, standard, and the level of each element of export development factors are given in Tables 8-13.

*Step 6: Drawing a diagram*

In this step, we first arrange the elements according to the level of priority obtained from top to bottom. Typically, factors with the same set of output and set of mutual relationships, i.e., factors whose standard set is the same as their output set, form the first level or the upper level of the hierarchy. Accordingly, the upper level will be the source of other elements.

*Step 7: Analysis of influence and degree of dependence*

In the final access matrix, the driving force

Table 6  
Primary Access Matrix for Factors Affecting the Development of Dairy Exports

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1	1	1	1	0	0	1	0	0	0	1	1	1	1	0	1	1	1
2	0	1	1	0	0	0	0	1	1	1	0	0	0	0	1	1	1	1
3	0	0	1	1	0	0	1	0	1	0	1	0	1	0	0	1	1	1
4	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	0	1	1	1	1	0	1	0	1	1	1	1	1	1
7	0	1	0	0	0	0	1	1	0	1	0	1	1	0	1	1	1	1
8	1	1	1	0	0	0	1	1	1	1	0	1	1	0	1	1	1	1
9	1	1	0	0	0	0	1	0	1	1	0	0	0	0	0	1	1	1
10	1	0	1	0	0	0	1	0	0	1	0	1	1	1	1	1	1	1
11	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
12	0	1	1	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1
13	0	1	0	0	0	0	1	0	1	1	0	1	1	0	1	1	1	1
14	0	1	1	0	0	0	1	0	1	0	1	0	1	1	1	1	1	1
15	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

Table 7

Final Matrix for Factors Affecting the Development of Dairy Exports

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	influence
1	1	1	1	1	0	*1	1	*1	*1	*1	1	1	1	1	*1	1	1	1	17
2	*1	1	1	*1	0	0	*1	1	1	1	*1	*1	*1	*1	1	1	1	1	16
3	*1	*1	1	1	0	*1	1	*1	1	*1	1	*1	1	*1	*1	1	1	1	17
4	1	1	*1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	17
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18
6	1	1	1	1	0	1	1	1	1	*1	1	*1	1	1	1	1	1	1	17
7	*1	1	*1	0	0	0	1	1	*1	1	0	1	1	*1	1	1	1	1	14
8	1	1	1	*1	0	0	1	1	1	1	*1	1	1	*1	1	1	1	1	16
9	1	1	*1	*1	0	0	1	*1	1	1	*1	*1	*1	*1	*1	1	1	1	16
10	1	*1	1	*1	0	0	1	*1	*1	1	*1	1	1	1	1	1	1	1	16
11	*1	1	*1	*1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	16
12	*1	1	1	*1	0	0	1	1	1	1	*1	1	1	1	1	1	1	1	16
13	*1	1	*1	0	0	0	1	*1	1	1	*1	1	1	*1	1	1	1	1	15
14	*1	1	1	*1	0	0	1	*1	1	*1	1	*1	1	1	1	1	1	1	16
15	1	*1	1	*1	0	0	*1	0	1	*1	*1	*1	*1	*1	1	1	1	1	15
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
18	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
dependency	15	15	15	13	1	5	15	14	15	15	14	15	15	15	15	17	18	18	

Table 8

Calculations to Determine the First Level of Factors Affecting the Development of Dairy Exports

Factor	Output	Input	Common	Level
1	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.6.7.8.9.10.11.12.13.14.15	
2	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
3	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.6.7.8.9.10.11.12.13.14.15	
4	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.8.9.10.11.12.14.15	1.2.3.4.6.8.9.10.11.12.14.15	
5	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.5		5	
6	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16.17.18	1.3.4.5.6	1.3.4.6.	
7	1.2.3.7.8.9.10.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.7.8.9.10.12.13.14.15	
8	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14	1.2.3.4.7.8.9.10.11.12.13.14	
9	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
10	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
11	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.8.9.10.11.12.13.14.15	1.2.3.4.8.9.10.11.12.13.14.15	
12	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
13	1.2.3.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.7.8.9.10.11.12.13.14.15	
14	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
15	1.2.3.4.7.8.9.10.11.12.13.14.15.16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
16	16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17	16.17	
17	16.17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18	16,17,18	First
18	17.18	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18	17.18	First

Table 9

Calculations to Determine the Second Level of Factors Affecting the Development of Dairy Exports

Factor	Output	Input	Common	Level
1	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.6.7.8.9.10.11.12.13.14.15	
2	1.2.3.4.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
3	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.6.7.8.9.10.11.12.13.14.15	
4	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16	1.2.3.4.5.6.8.9.10.11.12.14.15	1.2.3.4.6.8.9.10.11.12.14.15	
5	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15.16	5	5	
6	1.2.3.4.6.7.8.9.10.11.12.13.14.15.16	1.3.4.5.6	1.3.4.6	
7	1.2.3.7.8.9.10.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.7.8.9.10.12.13.14.15	
8	1.2.3.4.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14	1.2.3.4.7.8.9.10.11.12.13.14	
9	1.2.3.4.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
10	1.2.3.4.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
11	1.2.3.4.7.8.9.10.11.12.13.14.15.16	1.2.3.4.5.6.8.9.10.11.12.13.14.15	1.2.3.4.8.9.10.11.12.13.14.15	
12	1.2.3.4.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
13	1.2.3.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.7.8.9.10.11.12.13.14.15	
14	1.2.3.4.7.8.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	
15	1.2.3.4.7.9.10.11.12.13.14.15.16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.9.10.11.12.13.14.15	
16	16	1.2.3.4. 5.6.7.8.9.10.11.12.13.14.15. 16	16	second

Table 10

Calculations to Determine the Third Level of Factors Affecting the Developemtn of Dairy Exports

Factor	Output	Input	Common	Level
1	1.2.3.4.6.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.6.7.8.9.10.11.12.13.14.15	Third
2	1.2.3.4.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	Third
3	1.2.3.4.6.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.6.7.8.9.10.11.12.13.14.15	Third
4	1.2.3.4.6.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.8.9.10.11.12.14.15	1.2.3.4.6.8.9.10.11.12.14.15	
5	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	5	5	
6	1.2.3.4.6.7.8.9.10.11.12.13.14.15	1.3.4.5.6	1.3.5.6	
7	1.2.3.7.8.9.10.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.7.8.9.10.12.13.14.15	Third
8	1.2.3.4.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14	1.2.3.4.7.8.9.10.11.12.13.14	
9	1.2.3.4.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	Third
10	1.2.3.4.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	Third
11	1.2.3.4.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.8.9.10.11.12.13.14.15	1.2.3.4.8.9.10.11.12.13.14.15	
12	1.2.3.4.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	Third
13	1.2.3.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.7.8.9.10.11.12.13.14.15	Third
14	1.2.3.4.7.8.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.8.9.10.11.12.13.14.15	Third
15	1.2.3.4.7.9.10.11.12.13.14.15	1.2.3.4.5.6.7.8.9.10.11.12.13.14.15	1.2.3.4.7.9.10.11.12.13.14.15	Third

or guidance and the degree of dependence must be calculated for each element to segment the criteria. The driving force of an element or criterion is the number of criteria that are affected by the relevant criterion, including the criterion itself. The degree of dependence is the number of criteria that affect the relevant criterion and lead to its achieve-

ment. These driving forces and degree of dependence are categorized and used in MIC-MAC analysis. The elements are divided into four groups: self-governing or autonomous, dependent, linkage (communicative), and influential (independent).

Independent variables have a weak influence and dependence degree. These variables

Table 11  
Calculations to Determine the Fourth Level of Factors Affecting the Development of Dairy Exports

Factor	Output	Input	Common	Level
4	1.4.6.8.11	1.4.5.6.8.11	1.4.6.8.11	Forth
5	1.4.5.6.8.11	5	5	
6	1.4.6.8.11	1.4.5.6	1.4.6	
8	1.4.8.11	1.4.5.6.8.11	1.4.8.11	Forth
11	1.4.8.11	1.4.5.6.8.11	1.4.8.11	Forth

Table 12  
Calculations to Determine the Fifth Level of Factors Affecting the Development of Dairy Exports

Factor	Output	Input	Common	Level
5	5.6	5	5	
6	6	5.6	6	<b>Fifth</b>

Table 13  
Calculations to Determine the Sixth Level of Factors Affecting the Development of Dairy Exports

Factor	Output	Input	Common	Level
5	5	5	5	Sixth

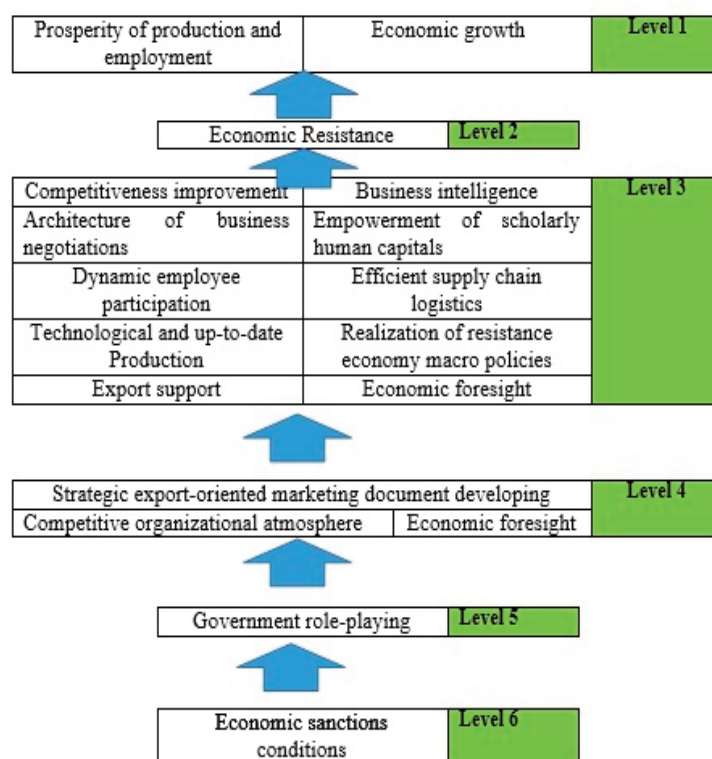


Figure 1. Interpretive Structural Model of Factors Affecting the Development of Dairy Exports

are relatively separate from the system and have a weak link with other system elements. Dependent variables have poor motility and conductivity, but a high degree of dependence. Linkage variables have a high driving force and high dependence. These variables are non-static because any change in them can affect the system, and eventually, system feedback can change these variables again. Influential variables have a substantial effect but weak dependence. In general, the line sum of values in the final achievement matrix for each element indicates the influence power, and the column sum also indicates the degree of dependence.

**DISCUSSION AND CONCLUSION**

In this study, 18 key factors affecting export development were first identified through interviews, and then using the interpretive structural model method. They were prioritized based on their impact into six levels. Economic sanctions and government planning were identified as the most influential factors. Business diplomacy, competitive organizational atmosphere, development of export-oriented marketing strategic document,

economic foresight, export support, implementation of macroeconomic policies, technological and up-to-date production, efficient supply chain logistics, active employee participation, empowerment of scholarly human capitals, architecture of business negotiations, business intelligence and improving competitiveness were also identified as intermediate factors that had moderate impact and effectiveness. Finally, economic resilience, economic growth, and prosperity of production and employment were found to be the most influential factors.

In this study, only 18 factors affecting the development of dairy exports were identified, while there may be other key factors that are not mentioned in this study. In addition, the results are highly dependent on the interviewed experts' opinions and may change with the statistical sample changes.

**RECOMMENDATIONS**

It is recommended that companies, organizations, and manufacturing industries (whether dairy or other industries) try to achieve the slogan of the year (production jump) and macroeconomic policies of resist-

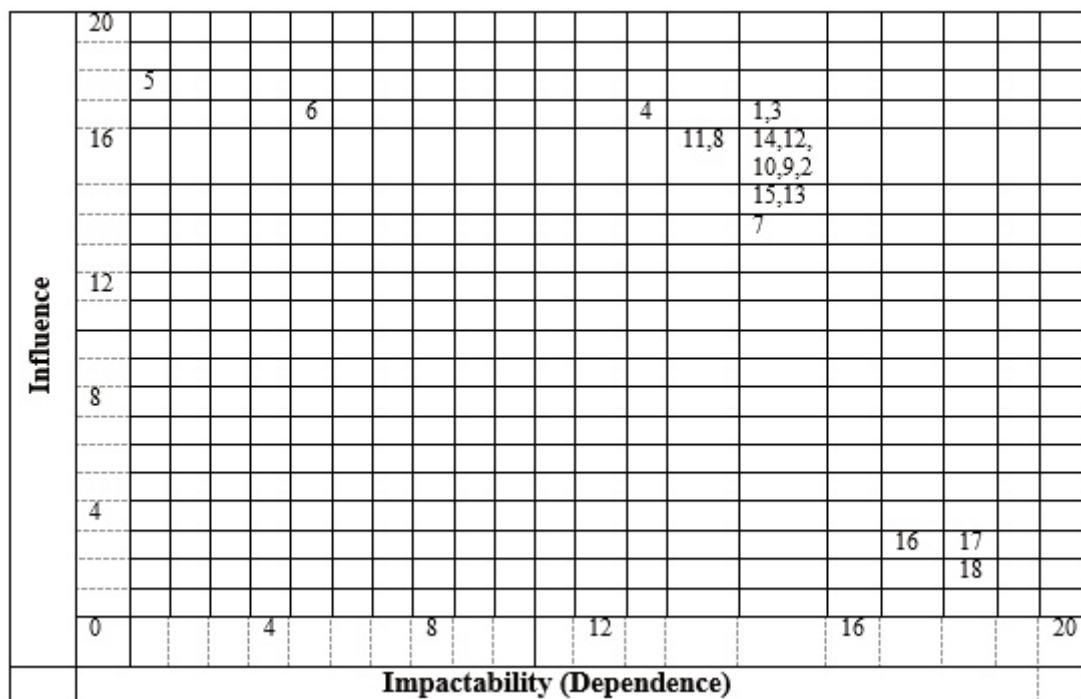


Figure 6. Influence Strength-Dependence Degree (Rate) Diagram

ance economy (Paragraph 10) using the extracted export development model.

It is recommended that academic experts, export experts, managers, and experts of dairy companies benefit from each other's knowledge and experience to advance the development of exports by reinforcing the relationship between government, industry, and university.

It is recommended that each part of the dairy export development model be considered and acted upon separately. For example, the category of business diplomacy should be implemented separately or as a research topic.

Despite having favorable political relations with neighboring countries such as Iraq, Syria, Afghanistan, Pakistan, Qatar, and Russia, proper economic relations have unfortunately not been formed for exports, so it is suggested to form an Exports Ministry hold the necessary consultations for economic exploitation.

It is recommended that in the development of dairy exports, neighboring and Islamic countries should be given priority.

It is recommended that the number of dairy companies' exports be reviewed every year and the company with the highest rate of exports be awarded as the top exporter and be given priority in receiving facilities and incentives.

It is recommended that dairy companies visit the top companies worldwide to improve their products and processes.

It can be recommended that economic advisers take the necessary measures to reduce customs costs and tariffs in the target countries.

## REFERENCES

- Ahmadi, P., Kordnaeej, A., & Mirsharifi, F. S. (2008). Exports in plastics industry (Using international marketing methods). *Management Message*, 26, 119 -144.
- Alimohammadi, Y., Aghamousa, R., & Alizadeh Meshkani, F. (2014). Examining the role of export competitive advantages on export performance. *Management Science*, 4, 621-626.
- Dadashi Jokandan, A., Bagheri, S., Ghane Koshalshahi, S. F., & Babazadeh, S. A. (2015). *Investigating the impact of information resources components and government incentive policies on export of exporting companies*, First International Conference on Management, Economics, Accounting and Educational Sciences, Sari, Iran.
- Elahi, S. M., Khaledi, D., & Karimi, F. (2014). The influence of export mixed marketing strategy on food industry export performance. *Management and Humanity Sciences*, 3(1), 1281-1287.
- Ghasemi, A. (2008). A review of temporary entry policy for non-oil exports development. *Review of Economic Issues and Policies*, 77-78, 85-97.
- Harati, J., Behradamin, M., & Kahrazeh, S. (2014). Investigating the factors affecting Iran's exports (Gravity model application). *Economic Growth and Development Research*, 6(21), 29-46.
- Hassangholipour, T., Motevasseli, M., Mohammadi, Sh., & Hosseini, F. (2010). The impact of export incentive programs on export performance: A case study of electrical industry. *Business Management*, 2(5), 21- 40.
- Hassanpour, N. (2014). *Theoretical-empirical comparison of E-commerce role on export development*, First International Conference on Economics, Management, Accounting and Social Sciences, Rasht, Iran.
- Hosseini, S. Y., & Mirjahanmard, S. J. (2011). Export function of companies: Identifying the effect of competitive advantages, Adapting marketing tactics and export experience on export function. *New Marketing Research*, 1( 1), 180-155.
- Imankhan, N., Mokhtarian, M., & Nourinasab, M. (2009). A study the competitive strategies of top Iranian export companies in 2007. *(Researcher) Management*, 6, 16, 69-79.
- Karampour, A. H., Sharifi, K., & Safabakhsh,

- Sh. (2012). Providing a model to evaluate the impact of resource-based approach components on export performance based on cost leadership strategy in the non-metallic mineral industry. *Business Management*, 4(12), 113-128.
- Karbasi, A., Mohammadzadeh, S. H., Rasoolian, A., & Ashrafi, M. (2018). Export development strategies and expanding the field of economic cooperation with central Asian countries. *Strategic and Macro Policies*, 6(21), 111-126.
- Kayabaşı, A., & Mtetwa, T. (2016). Impact of marketing effectiveness and capabilities and export market orientation on export performance: Evidence from Turkey. *European Business Review*, 28(5), 1-26.
- Kazeruni, A., & Nasibparast, S. (2014). Determinant factors of exports in developing countries: Bayesian econometric approach. *Planning and Budgeting*, 19, 4, 35-63.
- Mahdavi, M., Zarifian, Sh., Mohammadrezaei, R., & Shamabadi, M. A. (2013). Factors affecting the readiness of cooperatives in exporting dates to enter the global market (Case study: Hormozgan and Fars Provinces). *Commercial Studies*, 63, 1-11.
- Mahmoudi Meimand, M., Khabaz Babil, S., & Foroughinia, Kh. (2014). Export development Management; Identification and leveling of export drives (Case study: Auto parts manufacturing industry). *Business Management*, 6(4), 889-910.
- Mirjalili, S. H., Hosseini, S. Sh., & Abdi, Y. (2018). Investigating the factors affecting the development of exports of knowledge-based (High-tech) products in selected countries. *Strategic Knowledge Interdisciplinary Studies*, 8(33), 115-144.
- Mohamed, H. M., & Al-Shaigi, R. S. M. (2014). The impact of marketing strategy on export performance (Case study of sudan gum arabic export performance), *Science, Environment, and Technology*, 3, 4, 1618-1635.
- Mohammad Kazemi, R., Solati, A., & Kiani, E. (2016). Prioritization of factors affecting the export performance of sports equipment exporting companies. *Business Management Perspectives*, 25, 141-159.
- Moshabbaki, A., & Khademi, A. A. (2012). The role of export development programs on improving the firms' export performance. *Improving Management*, 6(3), 17, 98-135.
- Mosleh, A., & Saeedi, M. (2015). Investigating the impact of network capabilities on international performance of exporting and importing companies. *New Marketing Research*, 5(3), 18, 1-20.
- Musakhani, M., & Shahrvarnmeher, A. (2015). Investigating the effective factors on export development in small and medium enterprises (firms) of food industry in Qazvin with MADM approach. *Development and Transformation Management*, 23, 1-9.
- Movaghar Moghaddam, F., Abdul Hamid, A. B. B., Abdul Rasid, S. Z., & Darestani, H. (2011). The influence of export marketing strategy determinants on firm export performance: A review of empirical literatures between 1993-2010. *IJFPSS(Fundamental psuchology & Social Sciences)*, 1(2), 26-34.
- Naej H., A. & Salarian, Sh. (2014). The role of culture in international marketing, relying on resistive economy. *Resistive economics (OAJRE)*, 2, 4, 90-104.
- Nategh, M., & Niakan, N. (2009). Laying the export development with emphasis on restrictions, Incentives and export performance. *Business Reviews*, 37, 43-55.
- Pasban, F. (2006). Investigating the factors affecting Iranian saffron exports. *Economic Research*, 6(2), 1-15.
- Poorebrahim, F., & Esmaili, A. (2010). Investigating the impact of export awards on export development in Iran agricultural sector. *Agricultural Economics*, 4(1), 115-135.
- Qaracheh, M., & Shamshiri, F. (2010). Benefits of using the services of export management companies on export development strategies of small and medium firms. *Strategic Management Studies*, 14, 65-85.

- Rahimnezhad, S., & Alipour, H. (2015). Identify the determining factors of export performance of tea exporting companies. *Fundamental and Applied Life Sciences*, 5, 1298-1306.
- Rahmani Yoshanloui, H., Ansari, M., Mirkazemi Mood, M., & Ebrahimi, M. (2013). Identifying and prioritizing export barriers and presenting export development strategies for small and medium industries in food industry of West Azerbaijan. *New Marketing Research*, 3, 1, 8, 139-160.
- Sadeghi, T., Lashkari, M., & Karbalaee Esmaili, H. (2012). Presenting the model of main export success factors from perspective of exporters in Iran. *Marketing Management*, 17, 61-82.
- Saeeda Ardakani, S., & Sayyadi Turanlu, H. (2012). Analysis of non-oil exports development challenges and strategies (Case study: Yazd textile industries). *Organizational Culture Management*, 10, 109-128.
- Sarmad Saeedi, S., Ghasemi, B., vajdi, Kh., & Najafi Majd, S. (2015). The impact of export incentive programs on export performance of companies exporting technical and engineering services. *Business Reviews*, 72, 14-1.
- Seif, A., & Hafezieh, A. A. (2013). International trade strategies of resistance economy of the Islamic Republic of Iran. *Basij Strategic Studies*, 16(60), 183-216.
- Shojaei, M., Mohtaram, R., & Ataherian, S. (2014). The impact of internal factors on export performance (Case Study: Pistachio exporting companies in Tehran). *Business Management*, 6(4), 791 -807.
- Taghavi Shavazi, E., Ahmadi, P., & Khodadad Hosseini, S. H. (2014). E-Commerce development model on home appliance companies status. *Business Management Explorations*, 6(11), 53-84.
- Tuyserkani, M., & Farzizadeh, Z. (2010). Identification and ranking of factors affecting the development of software exports in Iran. *Program and Budget*, 15(111), 141-157.
- Ural, T. (2009). The effects of relationship quality on export performance: A classification of small and medium-sized Turkish exporting firms operating in single export-market ventures. *European Journal of Marketing*, 43(1/2), 139-168.
- Vazifehdoost, H., & Zarrin Negar, N. (2009). Study the performance of government policies on corporate exports. *Basirat*, 16(44), 47 -63.
- Zarei, A., Motameni, A., Feyz, D., Kordneej, A., & Farsizadeh, H. (2016). The role of export entrepreneurship behavior in promoting the export performance of firms by explaining the mediating role of gaining competitive advantage. *Public Management Research*, 9(34), 155-178.

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