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An Export Performance Model for the Industry of Flower and Ornamental Plants in Mazandaran Province by Using the Grounded Theory Approach

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Abstract

Despite the fact that Mazandaran Province is one of the important hubs of flower and plant production in Iran, has a high potential for flower and plant production and is adjacent to most consumer countries in the world (e.g., Russia), it does not play a significant role in the field of export. So, this research aimed to design an export development model for the industry of ornamental plants and flowers in Mazandaran Province using a qualitative approach. Data required were collected with in-depth semi-structured interviews. The interviewees included 16 experts and activists of the export of ornamental plants and flowers in Mazandaran Province who were selected by the snowball method based on the theoretical saturation index. The data were analyzed and the conclusions were drawn by the grounded theory approach which provides a limited theory. The data analysis was performed in three stages: open, axial, and selective coding. The paradigmatic model derived from the findings of the research includes causal conditions, strategies and consequences, intervening conditions, and contextual conditions. The analysis of the data showed that the model for the development of the export of ornamental plants and flowers from Mazandaran Province is composed of 19 factors including export hydrocephalus, technology, and experience and commitment as causal conditions, management capabilities, export terminal, targeted modeling (leading countries benchmark), networking, processing, competitive strategies, export marketing and branding, and hard and soft infrastructures as strategies, business diplomacy and sustainable economic growth as consequences of implementation of strategies, business environment and formalization-centralization of export structure as contextual conditions, and finally global red ocean and global evolution as intervening conditions. How they relate to each other is presented in the final model.

Keywords:
Export development, grounded theory, infrastructure, Mazandaran province, Ornamental plants

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INTRODUCTION

Despite a large number of studies on export performance, empirical works on export initiation are relatively limited. Thus far, the literature has fallen short of determining a comprehensive set of factors that affects firms' entry into export markets (Haddoud et al., 2021). Almost, export development is a priority in government policies in all developing countries. Governments can play a key role in promoting the foreign trade of domestic companies through export development plans (Khorshidi et al., 2016). In Iran too, the development of exports has always been emphasized since the Third Development Plan. Despite the great importance of exports for the sustainable development of Iran, and even though Iran has about one hundredth of the world's population, its share in world trade is as low as 0.6 percent of transactions (Banihashemi et al., 2016). One of the main problems in developing countries is their over-reliance on the export of one or a limited number of goods. Eschulz (2020) argues that the larger the share of the population producing a commodity, the less likely the governments will impose export bans on them.

Iran's foreign trade is no exception to this rule and is suffering from single-product exports and heavy dependence on foreign exchange income for oil exports. However, the necessity of avoiding single-product exports and resolving its problems, creating diversity in exported products, supplying foreign exchange for investment, and increasing its share in world trade clearly shows the importance of non-oil exports. In addition to meeting domestic needs, the agricultural sector in Iran also participates in foreign trade, and the export of its products is more stable than other sectors (Azizi et al., 2015). The industry of ornamental flowers and plants is one of the leading industries in the world, which is considered in more than 70 countries of the world on a commercial scale. However, less than ten countries are exporters of flowers and ornamental plants. Flower and plant export is one of the most important trade exchanges in some countries, to an extent that a country like the Netherlands earns a large percentage of its revenues from flower and plant exports. This country has many similarities to Mazandaran Province, in terms of both area and climatic conditions (Azarkish et al., 2014). It should be acknowledged that the world price of 30-40 branches of export rose is equivalent to one oil barrel (Zamanian, 2010).

Potential capabilities for growing flowers and ornamental plants and the superiority of this product in terms of quantity, quality, color variety, appropriate size, etc. in international markets on the one hand and Iran's position as a country with a high consumption rate of flowers and plants on the other hand have put Iran among the top 10 countries for the production of flowers and ornamental plants in the world. Russia is the world's second-largest importer of flowers after Germany, and the largest buyer of cut flowers coming from Iraq, Azerbaijan, Ukraine, Moldova, Belarus, Georgia, Armenia, Tajikistan, Kyrgyzstan, Uzbekistan, Turkmenistan, Kazakhstan, and Russia. Customers, including Georgia, Russia, and Belarus, are in fact the transit place for Iranian-exported flowers to other countries so that after Iranian flowers enter these countries, they are re-exported in new packages and under new names and brands from these countries. Iran's northern neighbors are very good buyers of ornamental plants (Shokatf Adaee et al., 2014). According to the available capacity, it is estimated that Iran is capable of exporting at least US$ 300-500 million ornamental flowers per annum (as cut or potted branches, trees, and shrubs) (Azarkish et al., 2014). Thirty-five million apartment flowers, 35 million garden flowers, and 59 million flower branches are among the flowers produced in Mazandaran Province that can be exported. While 20 percent of Mazandaran's products can be exported in the flower and plant sector, only 0.94 percent is exported. This means that only one million dollars are exchanged

to the province through the export of flowers and plants.

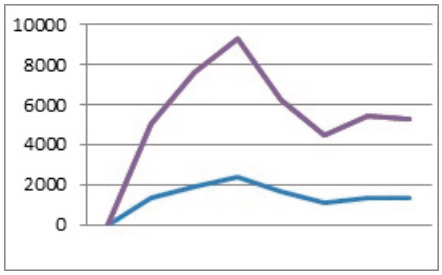

Figure 1: The chart of changes in the export of ornamental plants and flowers from Mazandaran province during the last 10 years
Top chart: Value (thousand dollars)
Bottom chart: weight (tons)

In this article, an attempt is made to evaluate the flower and ornamental plant industry from the perspective of export performance by designing a model for developing the export of ornamental flowers and plants in Iran using the grounded technique. The statistical population includes all professionals and experts active in the field of the export of flowers and ornamental plants in Mazandaran Province who were selected by conducting snowball sampling for in-depth interviews. The process was continued until theoretical saturation was reached. From an applied perspective, considering that one of the axes of development plans is to obtain export mutation strategy and to direct products toward export needs and global market demand, success in this field requires recognizing the potential and capabilities in the field of production and export, and for this purpose, it is necessary to study and determine the comparative advantage of products in production and export. Providing a model for the development of exports of flowers and ornamental plants can be a practical way out of the single-product economy and dependence on oil and revenues from oil sales. It can also contribute to identifying the components of export development, especially in flower and plant production.

Concepts, views, and theoretical foundations

Export development always means the development of exports of mainly factory products so that export can act as a growth engine and driver of industrial development. Therefore, export means a certain trade strategy that leads the country toward industrial-economic development faster (Banihashemi, 2015). According to Alekh et al. (2000), researchers used to review their research literature and the practical results of export strategies in the 1990s while, according to Morgan et al. (2012), recent studies have put more emphasis on the role of resources and export capabilities of the firms (Makri et al., 2017). The subject of the present study includes the two main areas of export development and ornamental flowers and plants, which have been considered for research on the main topic, namely the development of ornamental flowers and plants since few studies have been done on the export of flowers and ornamental plants and they have failed to provide a model. So, exploratory studies include studies that are most closely related to one or two areas of this research. Previous studies on the obstacles and capacities of the flower and plant industry in Iran have sought to identify the factors affecting the export of flowers and plants. Table 1, presents a summary of internal studies and the components enumerated about the export of flowers and ornamental plants.

To discover the desired export development model using the grounded theory approach, the researchers have conducted research on both main areas of the export development model and the ornamental flower and plant industry of Iran. The main components explained in export development models are related to competitive advantage in relation to the competitive environment, human factors, multinational corporations, and the role of culture. Therefore, by providing indicators and variables derived from similar export development models, to provide a local model, previous theories about the flower and ornamental plant industry

Table 1

A Summary of Studies on the Flower and Ornamental Plant Industry

Model	Title of research	Research elements and indicators
Azarkish et al. (2015)	Investigation of natural capacities of infrastructures for development of flower and ornamental plants industry; case study of Iran and Kenya	Physical Infrastructure- Financial Infrastructure- Technological Infrastructure- Legal and Regulatory Infrastructure- Social Infrastructure
Estelaji & Pazoki (2013-2014)	Global marketing model to increase the export of Pakdasht flower product	Production in a modern industry, using leading countries, packaging, appearance, quality, variety in production, export terminal in the region, understanding the structure of foreign markets, the existence of warehousing equipment and facilities, sales representatives in the target market, the activities of marketing specialists, the experience of leading countries, advertising, specialized international exhibitions, export organizations, government incentive policies, finished cost in farm , financial support of government, government foreign exchange policies, domestic inflationary effects, foreign investment
Amiri et al. (2013-2014)	Analysis of Barriers and Problems of Flower and Ornamental Plant Producers from the Perspective of Florists: A Case Study of Mahallat County	Economic Factors- Creating capacity to enhance knowledge- Lack of harvesting and processing facilities - Skill and technical knowledge- Marketing skill training- Government support of florists- Empowerment of florists
Nezami et al. (2014-2015)	Explaining the components affecting the development of flower exports in Iran: A case study of Alborz province	- Internal factors,- Product appearance,- Features of production entity- External factors,- Environment features,- Market features,- Industry Features
Alireza Zamanian (2009-2010)	An analysis of the production and export marketing of Iranian flowers and plants on a case-by-case basis in Mazandaran province	Marketing mixed variables,- Export history,- Education level,- Electronic commerce,- Changing the production method from traditional to industrial
Nikoei et al. (2009-2010)	Investigating the Market Structure and Marketing System of Flowers and Ornamental Plants in Iran, Case Study: Cut Branch Rose Market of Isfahan	High share of flower retailer from the final price- Different share of producers due to different product supply routes- Limited marketing services of the flower industry- Branch flower marketing system- The cost of waste versus the cost of marketing
Sorouhsh (2005-2006)	Evaluation of how to use mixed marketing to increase the country's flower and plant exports	Product: Qualitative features- Pricing: Credit sales- Distribution channels: Existence of air transportation system- Incentive and persuasive activities: Attending in foreign exhibitions

should be modified and upgraded. The following are some export development models whose components are closer to the present model. For example, Makri et al. (2017) presented the model depicted in Figure 2 in an experimental study of the export performance of 168 small and medium-sized companies with direct exports and examined the effect of innovation on exports. They stated that export innovation will directly lead to the development of exports.

In a study on designing and explaining an export development model in Iran's free trade zones, Khorshidi et al. (2017) concluded that micro and macro environmental variables and the export structure of free zones on the one hand and export marketing strategies and competitive strategies, management capabilities and organizational capabilities on the other hand, as well as

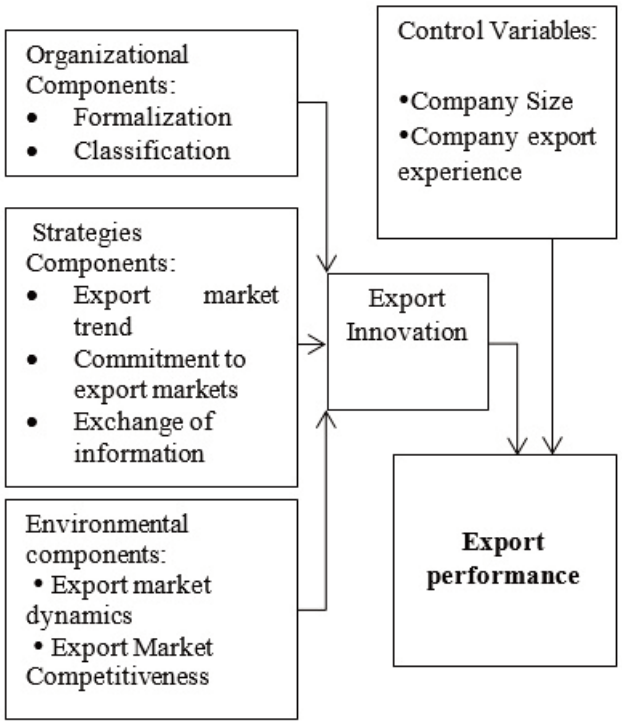

Figure 2. Experimental Study of Export Performance with the Mediating Role of Innovation in Exports (Makri et al., 2017)

production capacity and resources, are effective in export development in Iran. They also examined micro and macro environmental variables and outlined competitive and export marketing strategies (Figure 3).

METHODOLOGY

The present study is basic (exploratory) and analyzed the problem qualitatively. To the best knowledge of the authors, there is no specific research that has presented a model for the development of the export of flowers and ornamental plants in direct connection with the research subject, and it lacks sufficient theoretical foundations. On the other hand, the discussion of exports and the characteristics of export performance are among the complex phenomena in which many elements and variables are involved and interact with each other in an intertwined manner.

Therefore, the grounded theory method was chosen for this research, the target phenomena are examined in their real form and live through interviews with experts in the export of flowers and plants and the identification of related concepts, over the course of the study. Unlike deductive methods, this method is based on an inductive approach. Therefore, it is in more coordination with the study environment. Also, it provides a better explanation because it is more suited to the situation and tries to understand and interpret the perception of experts in the field of flowers and ornamental plants of Mazandaran Province and answer the question as to why this province with its high capacity for ornamental plant production has a little share in the field of export. While analyzing their ideas and opinions, it also tries to identify the variables that affect the process. Despite the upward trend in the volume and amount of export of flowers and plants in Mazandaran Province at the end of the last decade, the number of exporters and the volume of export of flowers and ornamental plants in this province has declined since 2011. So, the number of large exporters decreased from 8 in 2009 (quoted by Zamanian, 2009-2010) to less than 4 in 2019.

Figure 3. Model of Factors Affecting Export Development in Iran's Free Trade Zones (Khorshidi et al., 2016)

Therefore, the present research collected and analyzed the data based on the objectives and nature of the subject by the grounded research strategy. Its main idea is that theorizing does not arise from available data; rather, it is created or conceptualized based on data from participants who have experienced the process. In this strategy, people in the environment are considered and their feelings are understood, so it is efficient in practice and reveals more complexities of the process.

Preliminary data for this study were collected from three main sources, including in-depth and semi-structured interviews with 16 experts and professionals, export development models, and authentic articles related to the industry of flower and plant export.

The participants were 16 exporters and traders of flowers and ornamental plants in the province, managers, and experts at different levels of Industry, Mine and Trade Organization, Agriculture Jihad, Customs, Export Chamber of Commerce, Flower and Plant Union, transportation management at Amirabad port and airports of Mazandaran Province that have been selected by snowball method (chain referral). Snowball sampling is a sampling method in which sample units provide information not only about themselves but also about other units in the community (Strauss et al., 2008). Sampling

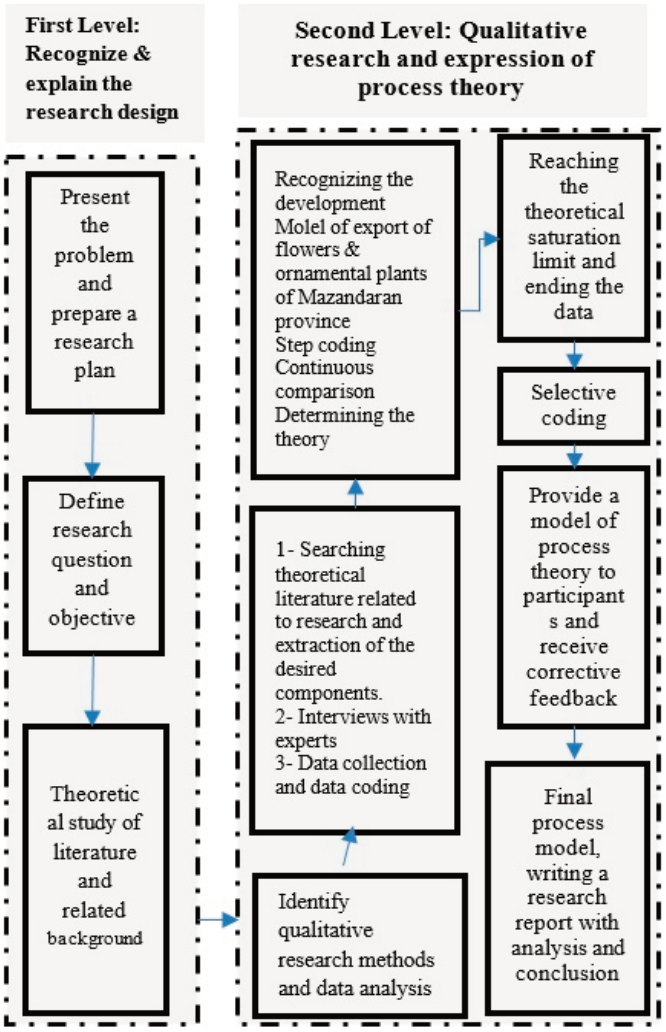

Figure 4. Research Steps

continued until the categories reached theoretical saturation. Theoretical saturation is the stage at which no new data appear about categories, the category expands appropriately, and the relationships between categories are established and confirmed (Strauss, 1987). In other words, after analyzing each interview and identifying the ambiguities or weaknesses of the model and categories, the next person is selected according to the expertise required to eliminate and correct ambiguities and weaknesses until some consensus is achieved. This means that after an in-depth analysis of each interview, with the identification of ambiguities or weaknesses of the model and categories, the next person is selected according to the expertise required to eliminate and correct ambiguities and weaknesses, to the extent that the researcher reaches a stage of theoretical saturation. In this research, it was reached from the ninth participant onwards. Initial interviews were conducted in an in-depth and semi-structured manner for 30-120 minutes and then with the coding of the interviews, the form of the questions evolved somewhat. Also, after the participant's explanations, the researcher stated the contents of the interview and his/her perception of it until after the confirmation of the interviewee, the accuracy of the statements was ensured. In order to validate the results, the researcher compared the homogeneity of the information and the obtained categories comparatively in the open coding stage.

Also, during the central coding, questions were designed about the categories, and evidence and events were examined about the data. In the selective coding stage, the categories were validated based on scientific documents and research background. The research steps are shown in Figure 4. In this study, Strauss and Corbin's systematic approach was used according to which causal conditions affect the central phenomenon, the background and intervening conditions affect the strategies, and finally, the strategies affect the consequences. To determine these dimensions, they were coded at the same time as the data were collected. With open coding, many themes were obtained during the reciprocal process of data analysis, and the collection of this initial qualitative data was reduced to fewer categories so that preliminary categories related to the studied phenomenon were extracted from the primary raw data. Findings from the expert interviews were coded as follows. In the same way, a table was prepared for all interviews and verbal phrases, and the coding steps were done very accurately. Due to the large number and high volume of verbal phrases, it was enough to mention the above example. The aggregation of similar verbal phrases made up a total of 100 concepts. Other concepts were obtained in the same way that the above concept was extracted in the Table 2. These concepts extracted in open coding are at a higher level of abstraction and cover a certain number of verbal phrases. In addition to validating the formed relationships, the concepts were refined and the categories that needed to be improved and revised were modified. Then, a preliminary classification of the concepts extracted from the verbal phrases was done, which were placed in the form of 19 categories.

In the central coding stage, one of the categories (main category) of the process axis was examined and then other categories were theoretically related to it in the form of causal conditions, near and far environment, guides and consequences (Bazargan, 2016).

In this research, according to the opinions of experts in Mazandaran Province, the promotion of export performance is considered a central category. The main phenomenon is the concept that is considered for the created framework or design. The present study points to the extent of the export of flowers and plants from Mazandaran Province and attention should be drawn to the category of export performance and its related indicators and approaches. Strategies as mediators of change, with their action plans and initiatives, create a suitable platform for the process of the intended phenomenon. It is possible that if no intervention is made in the current situation and environmental and contextual structures, especially in developing countries, the necessary causal conditions and the development of the above phenomenon will never occur. Contextual conditions (causes) are a set of specific conditions within which action/reaction strategies are adopted. In fact, this is related to the governing space of the export of flowers and ornamental plants, which influences strategies. Meanwhile, the intervening conditions are the general environmental conditions that affect the strategies. Intervention conditions are such that they form a set of mediating and intermediate variables and affect strategies. Finally, the consequences are the output of the data or the results of the actions/reactions, which emerge as a result of obtaining the strategies. In total, during analysis and screening (excluding repetitions), 100 concepts and 19 categories were set in the form of six main dimensions, which are shown in Table 3.

RESULTS

Core category

"Tombo" or export performance of the flower and ornamental plant industry is considered a central category and is at the core of the model. To emphasize grounded theorizing, which stresses the novelty and specificity of the terms used in the models and patterns, the researcher used the term

Table 2

A Sample of Coding Verbal Phrases

(The Concepts Extracted in Open Coding: Corresponding of the quality and desirability of export goods with international standards)

Source of Phrases	Verbal phrases (To extract the concept)
The first interview	Production units must produce and present flowers and ornamental plants in accordance with international standards and in high quantities in order to be able to provide the world's flower and plant scale, the intended buyer's showcase with a certain number of flowers with the desired characteristics. At the Netherland Flower Auction Terminal, each company offers samples of its products in several different grades in specific types, heights, colors, sizes, ages, and dimensions so that customers can buy the product they would like. For example, Russia is very interested in cut branches, especially roses and anthuriums, and buys our flowers in four grades.
The second interview	A modern greenhouse should use perlite instead of soil so that the flower produced is completely standard in terms of quality and physical conditions. It must also provide a fixed volume of flowers in four seasons to attract the attention of countries like Russia. In greenhouses with technology, the life of the flower is scientifically increased to be fresh for the sale and can obtain a share of the global market.
The third interview	Now the Netherlands has gone to Colombia and invested there. Because Colombia, Kenya, and Ecuador have suitable conditions for producing flowers in four seasons and in accordance with international standards, and from there it is sent to all over the world by flight.
The forth interview	One who produces goods for another country must know the taste of the target market well, investigate in which sector the potential of that market is appropriate for their product presence, know the requirements of the target market, meet the standards required by the target market, and use the proper packaging according to the consumer's taste in the target market.
The fifth interview	Several factors affect the process of flower and plant production for export: quantity and quality of flowers and plants produced, continuity of production line, use of cocopeat and perlite in flower and plant breeding, suitable soil, and standard fertilization to achieve first-class and export flowers. In fact, the main reason why the global market does not welcome Iranian products is the lack of attention to quality and packaging. Even Fereydunkenar could not create a global brand despite its large volume of high-quality rice. Successful exports must be based on the order, and production must be customized. This means that the taste of the target market must be monitored well. Regarding citrus, we have been exporting to CIS for five years without price fluctuations, whose main reason was the high quality of the product and the large volume of production.
The seventh interview	Numerous factors such as the variety of flowers and plants, standardization of the product, durability, and compliance with market tastes (that the countries of the Caspian Basin are generally cold and produce fewer cut branches but have high consumption) have a direct impact on the export of flowers and plants from Mazandaran province,
The tenth interview	We need to create the initial feasibility to meet the needs and wants to achieve modern production in line with the world, and by in-principle and high-quality breeding, we will be superior to our competitors and remain in the foreign market.
The eleventh interview	Factors affecting the export of flowers and plants in Mazandaran province are numerous. First of all, production must be standardized and the product must be able to enter the world trade so that the products can be produced and offered according to the tastes of the target market.
...16	...Verbal Phrase 308

Table 3

Concepts, Categories, and Dimensions of Export Development of Flowers and Ornamental Plants in Mazandaran Province

Demension	Category	Concept
Core category	Tombo (promotion of export performance of Mazandaran flowers & ornamental plants industry)	Compliance of the quality and desirability of export goods with international standards
		Dynamics of the production mechanism
		Adjustment of export development indicators in the flower and ornamental plant industry
Causal conditions	Export hydrocephalus (Export barriers)	Export of oil instead of profitable products (curse of oil)
		The economic dependence on oil revenues
		Poor performance of manufacturing firms
		Malfunctions of privatization
		Unbalanced export growth
		Excessive export apolitical
	Technology	Volume of export
		Reduction of product waste
		Quality
		Innovation and value creation
	Experience & commitment	Manufacturer tacit knowledge
		Traders and exporters' tacit knowledge
		Content synergy
		Export commitment
Strategies	Management capabilities	Export insights and perceptions
		Commercialization of creative ideas in production
		Product-focused on advantageous investment
		Organizing human capital
		Risk reduction and private sector uncertainty
	Export terminal	Consensus performance of micro firms
		A platform for training and motivating exporters
		Reduction of damage to products
		Introduction according to global standard (grading)
	Targeted modeling (Leading countries benchmark)	Specialized relations with international consulting companies
		Localization of the Netherlands' export policies in the form of plans and programs
		Realization of the specialized approach
		Learning from the policies of leading countries
	Recreation of government in export development	Expanding unions and export organizations
		Development of export clusters and Consortium
		Development of industry share in the stock market
		Merger of Export Development Bank and Export Development Fund
		Establishment of specialized agricultural institutions consisting of specialists in the form of corridors
		Attracting investment
		Relations with the international monetary fund and the World Trade Bank
	Processing	Prosperity of agricultural conversion industries
		Product variety in exports
		Competitive mechanism
		Promotion of technology capabilities
	Competitive strategies	Focus strategy
		Differentiation strategy
		Cost leadership strategy
	Export marketing & branding	Market orientation (fill the gap between current and ideal performance)
		Market survey (identifying opportunities)
		Marketing and market orientation
		Mark construction (supply process improvement)
		Market round (showcase in terminals)
		Market assessment (establishment of export database)
		Marketer (commitment and experience)
		Tout (promotional and incentive activities)
		Marketing

Table 3
Continued

Demension	Category	Concept
Strategies	Hard infrastructures	Improving sea and air transport conditions
		The role of the rail network in exports
		Turning the country into a regional logistics hub (freight platform)
		Development of the packaging and sorting industry
		Support for international transport companies
	Soft infrastructures	Reviving export awards and incentives
		Exporting investment facilities
		Banking facilities export-oriented production prosperity
		Export product insurance
		Removing tariff and non-tariff export barriers
Contextual conditions	Formalization & centralization of export structure	The performance of the union of flowers and ornamental plants in production
		Monitoring programs of production enterprises in Jihad Keshavarzi Organization
		EPL Customs system
		Creating an interactive network between industry and policymakers in the Samt organization
		Manufacturer and exporter trade relations in the Chamber of Commerce
		Consensus performance of manufacturing firms
		Creating a specialized industrial town for flowers and ornamental plants
		Arranging the production capabilities of regions separately
Intervening conditions	Global Red Ocean	Multiplicity of industry competitors in the global market
		Variety of supply
		Export experience and export commitment of competitors
		Accelerated action of competitors in identifying potential markets and strategic opportunities
	International political and economic components	Political features of target markets
		International agreements such as the Joint Comprehensive Plan of Action (JCPOA), FATF
		Economics structure (inflation, recession, dollarization...)
		Exchange rate fluctuations
		International sanctions imposed
		Trans-regional monetary and banking system policies
	Global evolution	The mental image of the world community
		Trade process monitoring
		Political and economic passivity of target markets
		Bargaining power
		Political and trade relations
Consequences	Business diplomacy	Creating added value of export goods
		Increasing the bargaining power of industry in the international arena
		International export facilitation institutions
		Saving global value
	Sustainable economic growth	export prosperity
		Increasing productive employment
		Exiting from the stagflation
		Increasing per capita income
		Strategic alignment of government and industry
		Development of public infrastructure for converged industries
		Realizing the vision horizon in the development of non-oil exports
		Economic stability

"Tombo" as a key element that has a more abstract aspect to explain non-permanent and declining export. Tombo is the name of a large ornamental plant whose few leaves grow on the ground like a carrot and its large roots penetrate into a depth of 30 meters. This overgrowth of the roots reduces the number of leaves and thickens only two or three leaves. The rest of the leaves rot on the ground like a stinking corpse. In fact, the main extract of the interviews is based on the fact that during the last decade, especially in the past eight years, weaknesses in "compliance of quality and desirability of exported goods with international standards", "dynamics of production mechanism" and "multiplicity of export development indicators" in the ornamental plants and flowers industry have led to the departure of exporters and export producers from the flower and ornamental plant industry. This has changed the land use of the area under the cultivation of flowers and ornamental plants and reduced the number of greenhouses. Consequently, exports have shrunk. Naturally, the flowers and ornamental plants are considered luxury goods and the intended conditions of the buyer must correspond with the quality of the product produced. According to the experts interviewed, if the purpose of production is only seasonal supply to foreign markets, without considering the tastes of the target customer, the competitiveness with market competitors will be lost. According to the flower exporters interviewed, the demand in Russia (which is one of the largest importers of flowers in the world) is especially for cut branches, such as tulips and roses, which have a longer life than usual and are offered to the market in certain grades. Based on official statistics, Iran has lost the competition to Qatar in perennial shrubs, forests, and ornamental vegetables, Saudi Arabia, Pakistan, and Kuwait in dried and colored branch flowers, and finally Kuwait in the Christmas and fir trees, and the lack of "corresponding of the quality and desirability of export goods with international standards" is the first concept of the export performance of this industry. In accordance with the second concept of the main category, "dynamics of production mechanism", traditional and discontinuous production of greenhouses has caused exports to be pursued procedurally and non-permanently, and with the exception of a few export production units, the other units operate non-continuously. Also, according to experts who were also involved in the production, traditional greenhouses could not enter global markets in the long term due to the use of soil (instead of cocopeat and perlite) and also the lack of nutrients that enhance the quality and life of the product. In their opinion, traditional production will reduce market share and the insistence on modernizing production greenhouses to enter the export cycle has become almost fruitless due to the need for high financial affordance and the continuous reduction of government support. Also, the plastic roofs of traditional greenhouses, which makes them vulnerable to monsoon winds, cold weather, and heavy snow and rain (given the climate of Mazandaran Province), have made production units extremely susceptible. So, most traditional producers of flowers and plants in Mazandaran Province, especially outdoor producers, suffer a lot of damage annually due to the unstable climate of the province. This has led to the divergence of agricultural production units and the dispersion of exports. Export companies have also tended to change trade equations and greenhouses use based on other products with advantages in the province, such as kiwi (while Iran northern neighbors are regular customers of flowers and ornamental plants and Mazandaran have a high RCA index in terms of advantage).

Also, "the multiplicity of the export development indicators of the flower and ornamental plant industry" has limited the strategic view of the export development of this industry of the province. While Mazandaran Province is the leading producer of ornamental trees, shrubs, and apartment flowers and is the third leading producer of

cut branches in Iran so that more than one thousand hectares of the 6000 hectares of flower and ornamental plant fields are located in this province, most interviewees confirmed the declining trend of exports and the number of exporters of the province's flower and plant industry.

Casual Conditions

The components of "export hydrocephalus", "technology" and "experience and commitment" are the main components of the current performance in the export of this industry and the main causes of the main category. According to the experts interviewed, the weak export performance of the flower and ornamental plant industry is due to the priority of oil in the country's export and because of this dependence on oil revenues, export development programs are implemented at a slow pace. Export hydrocephalus is a novel term that refers to the disease of concentration of resources in a particular sector of the economy. According to that and due to the emphasis on grounded theorizing based on the novelty and specificity of model terms, it has been referred to as the export hydrocephalus. Hydrocephalus is a rare disease in which, after passing a part of the growth process, other organs of the body do not grow except for the head; so, the growing part swallows other nutrients in the body and paralyzes them. In fact, from the perspective of experts, especially the Agricultural Jihad Organization, the rent-based economy reduces world-class product competitiveness due to the inefficiency of private sector growth, and in experts' opinion, this disease includes the dysfunctioning of privatization, relationship-oriented exports, overburdening of export policy, and the coherence of development policies. According to Article 44 of the Constitution which is related to the reliance of Iran's economy on three sectors including public, cooperative and private, government development programs try to expand the role of the private sector and the role of the government as a regulatory and inspection body.

Meanwhile, the function of the privatization system, according to the interviewees, has increased bureaucracy and expanded economic rent, and the real private sector has had the least share in these assignments. This means that the government dominates companies and enterprises that have been privatized. Interviewees referred to this category as quasi-private, which refers to the inefficient implementation of the privatization policy of government organizations. Interviewees also believe that due to foreign trade sensitivity in domestic and foreign political positions, the most trivial government decisions directly affect export performance and measures like changes in the government cabinet directly affect the export process of the whole country, especially the provinces separately. This means that export activists who are in position or favor of the ruling political party will change their policies based on government practices and programs. In fact, the interviewees believed that the decisions of the ruling party have a direct impact on the export process. For example, facilities in the agricultural sector have been significantly reduced and export incentives and awards have been cut since 2010, which has been discouraging for export activists, especially in the agricultural sector, and has increased the risk of investors entering the field of export. Meanwhile, the poor performance in updating the production and distribution technology is one of the most important components of the formation of the current export performance in the export industry, which is a reminder of the weakness in technological infrastructure. In the meantime, the small and declining number of permanent exporters of flowers and ornamental plants in foreign markets and, as a result insufficient experience to survive in cross-border trade and commitments to supply the product correctly and on time in accordance with the international contracts, from experts' point of view, are the main challenges for formation the current export performance.

Strategies

Strategy-related categories from the perspective of research experts, which are essential components for the transition from the current situation to the desired situation, include "management capabilities", "export terminal", "targeted modeling (leading countries benchmark)", "networking", "processing", "competitive strategies", "export marketing and branding", "hard infrastructures", and "soft infrastructures".

The use of management techniques in negotiations is one of the effective executive strategies considered by the first interviewee as a top exporter in international markets for many years. Based on the specific techniques of market recognition and placement in the target markets, the market corners of the target countries (such as Magnet stores in southern Russia) can be considered through consultation and negotiation, or attempts can be made to use the market opportunities (such as the Russian Olympics as the largest market in this industry). It is the art of management to make the most profits out of opportunities, which includes export insight and character, as well as capital management. According to the experts, non-stop production is a necessary condition for export. Also, the construction of a flower and ornamental plant export terminal not only allows reaching consensus on the performance of small enterprises, creates a platform for training, motivates exporters, reduces damage to products, and helps product introduction and grading according to international standards as one of the executable strategies in exporting this industry, but it also contributes to the correct presentation of the product (according to the standard packaging and sorting system) to global markets (such as Romak Mazandaran Industrial Group). Also, all the interviewees referred to the Ahmadabad terminal project as a failed project and considered the export terminal of Romak Industrial Group as an example of a successful terminal for the export of agricultural products in northern Iran (which was commissioned at the beginning of 2020 under the management of the first interviewee of this research www.romaklogistics.com)

Based on the exporters and traders of the flower and ornamental plant industry, purposeful modeling of the Netherlands (due to the similarity of the climate and its leading position in exports), the localization of export policies of the Netherlands in the form of plans and programs, the adoption of a specialized approach, and learning from the policies of leading countries in the export of agricultural products, especially flowers and plants, in the form of consulting export facilitators (such as Alsmeier in the Netherlands) can promote the export process. The interviewees expressed that the networking of the export structure allows the expansion of export unions and organizations, the development of export clusters and consortiums, the development of industry share in the stock market, the merge of Export Development Bank and Export Development Fund, and the establishment of specialized agricultural organizations consisting of specialists in the form of export corridors. In this regard, the export approach of processed products plays a key role in the prosperity of agricultural processing industries, product diversity in exports, and the promotion of technological capabilities in exports. To facilitate exports, the strategy of focusing on the consumption-intensive CIS countries, differentiating the mixed product, and cost leadership were repeatedly emphasized by the experts. But, one of the most important factors for promoting export performance that was considered by the majority of interviewed experts is export marketing and branding, which can be implemented for Iranian flower products in foreign markets.

Consequences

From the perspective of the export experts, increasing exports in the flower and ornamental plant industry means creating added value for export goods, increasing the bargaining power of the industry in the interna-

tional setting, and participating in the global value chain, which can be achieved through contacts and consultation with international export facilitation organizations, which is referred to as the commercial diplomacy. According to them, in the context of the sustainable development of an advantageous industry, economic growth is manifested in export prosperity, the increase in productive employment, the resolution of stagflation, and the increase in per capita income. Also, the strategic alignment of the government and the industry and the development of public infrastructure of convergent industries will contribute to the development of non-oil exports, which will lead to economic stability.

Contextual conditions (Platform)

From the experts' viewpoint, what is the platform for the implementation of strategies as the contextual conditions is the facilitation of business environment and formalization and centralization of export structure.

Intervening conditions

The components of the remote environment that influence the implementation of export performance development strategies include the global red ocean in the flower and plant industry and global evolutions.

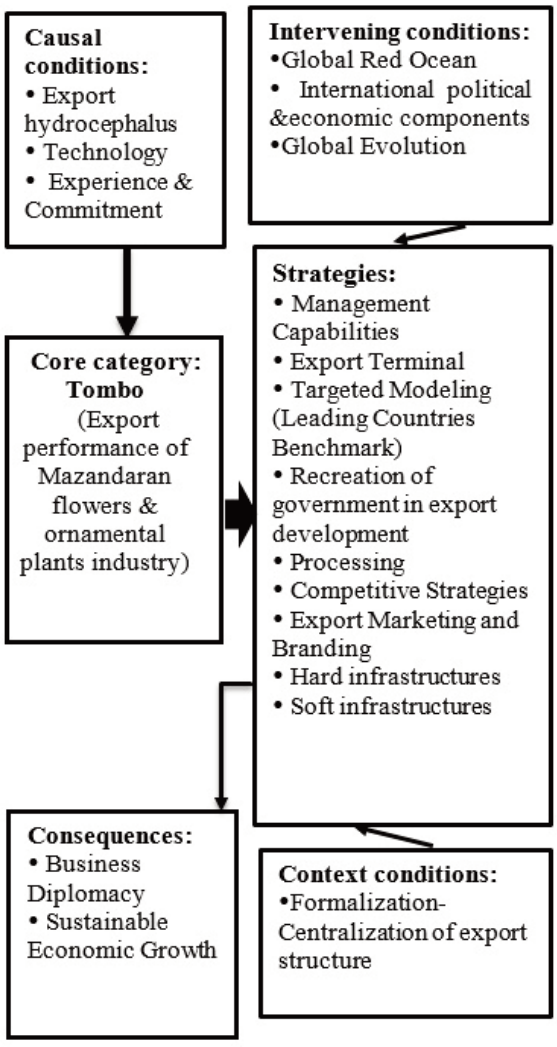

Figure 5. Paradigmatic Model of Export Development of Flowers and Ornamental Plants

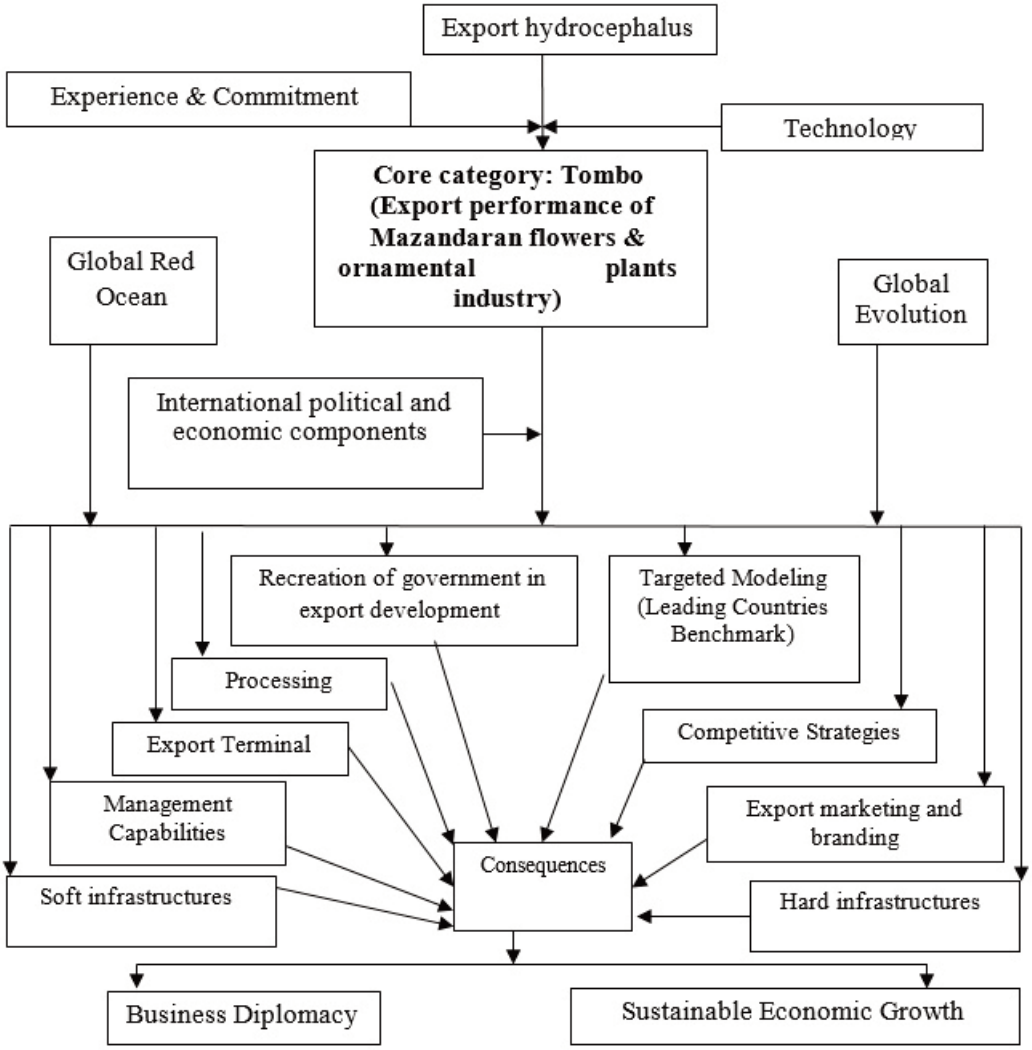

Figure 6. Drawing Model of the Process of Developing the Export of Flowers and Ornamental Plants in Mazandaran Province

Paradigmatic model of export development of flowers and ornamental plants of Mazandaran Province

Without introducing a coherent and purposeful model for micro and macro components, it is not possible to provide a correct and practical analysis. To turn analyses into a theory in a paradigm model, classes must communicate on a regular basis. Grounded theory aims to generate theory, not merely describe phenomena. Based on previous studies and components found in this study, the paradigmatic model of the research based on the relationship of influential and dependent components on the development of export of flowers and ornamental plants for a brief display of reality is presented in the Figure 5. Figure 4 also displays a pattern for developing the export performance of flowers and plants in Mazandaran Province.

DISCUSSION

The purpose of grounded theory is to generate theory, not merely describe phenomena. The advantage of the present study compared to other studies presented for the foreign trade of flowers and ornamental plants is that it provides a comprehensive action-based model and simultaneously, tries to consider maximizing operational components of the promotion of the export performance in the flower and ornamental plants industry.

While taking advantage of the exploratory

approach due to the lack of a comprehensive model or export model in the flower and ornamental plant industry, the present research seeks to compare the research results with the conceptual models tested by other researchers. This means that in this study, the sub-factors may be consistent with the main factors of other researches, but it is not possible to compare the whole model. For each factor in the presented paradigm model, a comparison was made with the research literature.

In the researches done by Olivira et al. (2018), Vang and Ma (2018), Mahindan et al (2018), Macri et al (2017), Khorshidi et al (2016), Navaro et al al (2011, 2016), Sors & Langer (2013), Macrini et al (2013), Namkova et al (2012), Moaghar Moghadam (2012), Dormosoglo et al (2012), Belsa et al (2012), Kalantoneh et al (2006), Goodwin (2005), and Shamsoldoheh & Ali (2006), Masaki et al (2001), and also Azarkish et al (2015), Mostashare Nezami & Nikokar (2014-2015), Khajir (2014-2015), Amiri & Others (2015-2016), Estelaji & Pazoki (2013-2014), Rafari & Bakhshodeh (2009-2010), Zamanian (2009).

Soroush (2005-2006), Chizari et al (2006-2007) have implicitly emphasized the components mentioned in the presented model. These researchers have emphasized physical, financial, technological, legal and social infrastructure, marketing mix, export history, market characteristics, organizations, production knowledge, political and economic factors, government support, formalization and coordination, innovation, customer tastes, export plan and strategy and facilities of industrial units, which all are consistent with the output of the interviews and the final model of the present study. According to Tajuddin et al. (2011-2012), two factors affect the movement of Iranian companies exporting agricultural products to global and international markets. The first factor is Article 44 of the Iran Constitution, which is based on privatization; and the second factor is government support of non-oil exports and efforts to get rid of the single-commodity economy, as well as efforts to join the World Trade Organization, which was mentioned in the research as components of the close environment.

Amini and Elmi (2016-2017) compared approaches in the field of resource curse and stated that according to some economists, the existence of easy oil revenues has reduced the need for serious economic reforms, technological growth, industrialization and real economic development in these countries, and the role of government is very important. Thus, sustainable development infrastructures (such as export infrastructures) are underdeveloped, and this revenue allows the government to be less accountable to economic activists and the public. However, it should be noted that the paper is concluded with the proposition that we should not think that the oil curse is inevitable; rather they can be overcome by proper management and the development of the economic-political structures of the countries for which Norway and Chile were mentioned as prominent examples. According to Ras (2001) and Vidman (1999), corruption and rent-seeking are two manifestations of institutional weakness, which is considered a serious obstacle against economic growth. This has been manifested in receiving export facilities according to our interviewees. Also, according to Auti's (2007) theory, rent rotation will lead to economic growth only through markets, which requires the expansion of the performance of superior and advantageous industries. The study of Aghaei et al (2018) which examined the impact of sanctions on Iran's trade relations with major trading partners, this findings of the study emphasize that sanctions after 2011-2012 and the intensification of existing economic sanctions reduced the value of reciprocal trade between Iran and major trading partners, which has had a greater effect on Iran's export markets. This was discussed in detail in the present work as a component of the remote environment.

It should be acknowledged that the geo-

graphical location and suitable climatic conditions of Mazandaran Province provide unique opportunities for the production and cultivation of flowers and ornamental plants and access to target markets, including the countries of the Caspian Sea. According to Madhoshi and Tari (2006), the agricultural sector of Mazandaran Province has a high RCA score in comparative advantage. In the agricultural sector itself, flowers, ornamental plants, citrus, and kiwifruits have a comparative advantage. Infrastructures creates potential capacities for the region. Restrictions on smallholder farmers such as credit, warehousing, product marketing, insurance and access to technology are components that play a greater role in export production than other components. Economic view towards the production of flowers and ornamental plants with the aim of exchange generation can contribute to recruiting experts and improving production infrastructure facilities. The creation of a comprehensive system of Iran customs affairs (EPL) has reduced the administrative bureaucracy of exporters and traders and has saved time and money as its advantages.

Finally, Iran has recently entered Eurasia, which provides Iranian with special export opportunities. Also, the customs tariff between Iran and the CIS has been removed. This means that a Netherland trader currently pays tariffs in more than ten CIS countries, but an Iranian trader doesn't. It is now the best time to export the products of flowers and ornamental plants of Mazandaran Province to the high-consumption countries of the Caspian Sea as we can trade without tariffs.

Research limitations

•Significant decline in the number of exporters of flowers and ornamental plants from 2010 until now (2021).

•Difficulty accessing exporters and experts for interviews

•Invisible defense of the interviewees from the organization of their field of work

•Possibility of bias in research results due to judgments and opinions of selected samples.

Suggestions for future research

• Conducting the present study using other statistical methods such as correlation analysis

• Conducting the present research in the field of export of medicinal plants.

• Research on how to encourage the modernization of traditional greenhouses and increase productions with an export focus.

• Development of an indigenous model for other provinces active in the field of cultivation of ornamental plants and flowers for export.

• A comparative study of Iran's flower and plant industry with the Netherlands, Colombia, Kenya, and Ecuador.

• Investigating the effect of micro and macroeconomic variables on the export of ornamental plants and flowers in Iran and the provinces separately.

• Repeating the research in another time domain, due to the sanctions and exchange rate fluctuations.

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CONFLICT OF INTEREST

The Authors state that there is no conflict of interest.

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