Evaluating and Presenting a Model of Competitiveness of Agricultural Products in Khuzestan Using Theme Method

Seyed Ali Jalali[1], Majid Nili Ahmadabadi[2*], Belqis Bavarsad[3], Saber Mullah Alizadeh Zavardehi[4]
[1]Phd student, Department of Management, Masjedsoleiman Branch, Islamic Azad University, Masjedsoleiman, Iran
[2]Associate Professor, Vice Chancellor for Education and Research Faculty of Management, Qom University, Qom, Iran
[3]Associat Professor, Chmran of Ahwaz University, Ahwaz, Iran
[4]Assistant professor Department of Management, Masjedsoleiman Branch, Islamic Azad University, Masjedsoleiman, Iran
*Corresponding author Email: Nili2536@gmail.com, Phone number: 0989121303478

Abstract

The purpose of the study was to evaluate and present a model of competitiveness of agricultural products and rank the select cities and products based on the competitiveness advantages in Khuzestan. The study was applied in terms of purpose and descriptive correlation in terms of nature. Data was collected using a semi-structured interview whose reliability was confirmed using the test-retest method. Besides content validity, convergent validity and factor validity were used in the study, where the results confirmed the validity. The population was 15 managers and employees of agricultural departments and managements in Khuzestan selected using the purposive (judgmental) sampling method. The theme method was used to answer the question and analyze the collected results. According to the results, economic factors, cultural, infrastructure, institutional and political factors, rainfall and geographical factors of agriculture, threatening new the new competitors, bargaining power of suppliers, competition between current competitors, and bargaining power of buyers were identified as the aspects of the evaluation model of the competitiveness of agricultural products. The findings indicate that the most competitive cities in terms of the products are Dezful, Shoush, Andimesh, Ahwaz, Shoushtar, Behbahan, and Ramhormoz, respectively. One of the important advantages of the current study is the identification, omission, or replacement of plants with a lower competitive advantage.

1. Introduction

Exports of industrial and traditional agricultural products are of great significance in Iran's non-oil export portfolio. As is clear in the first, second, and third development plans, different policies have been implemented to support the export development of this sector, which has been even more emphasized in the fourth plan (Armen and Kurdzanganeh, 2017).

Proper policy-making to enhance the position of this sector in the global arena calls for realistic and practical information and studies. Exporters have to be enough knowledgeable of the target markets, the degree of market concentration, the behaviors of competitors and hurdles to entering these markets, and so on. A glance at the real world shows that many markets have local, regional, and some global specifications. Different market structures are visible from competitive to monopoly in global markets. As a country with great potential in agriculture, livestock, and fisheries, Iran could enhance its position in the trade of these goods as a serious competitor in the export and international (Aghaei and Rezaghilizadeh, 2019). Competition is the key principle in the global market. Competitiveness is based on two pillars: quality and competition. Hence, it is clear that those sectors that are unable to be present in this market based on the above two axes will fail and face many problems. The former US president,

in defending the World Trade Organization (WTO), has stated that with the rule of law and regulations of this organization, about 100 to 200 billion dollars of additional profit will benefit the US economy annually (Amoroso et al., 2018). It is clear which countries pay for this. One has to maximize productivity according to new knowledge and technology to succeed in this market, and this process is impossible except by providing efficient and active human resources. However, one has to consider that efficient and active human resources alone are not enough, but the orderly and efficient economic structure, knowledge, and information in the global marketplace should all act as complementary to each other and each alone is not enough to compete, but are necessary and obligatory for each other (Karbasi and Rastegaripour, 2014). It is impossible to plan in general and apply a policy for everyone to increase the export of agricultural products. For instance, Iran's market share and export value are very small in the grape and apple market, and the main reason for this is the problems of packaging, storage, and transit as already stated. Hence, it is suggested that the necessary context and infrastructure be considered in the strategies of the agricultural sector to solve these problems (Salami and Pishbahar, 2018). Thus, with accurate marketing of each product in adopting export policies appropriate to each product can be sustained in the field of global competition (Candau et al., 2019). The economic structure of each country is one of the key elements for success or failure in global markets, including the cost of goods, wages, inflation, stability in laws and decisions. For instance, the high rate of inflation in our economy is one of the major hurdles to the competitiveness of agriculture and other products that have to be tackled. If we cannot control inflation, even products that currently have a comparative advantage in the global markets will soon lose this advantage (Jafarzadeh et al., 2018).

Inattention to the potential talents and facilities of the regions that can be a factor in regional development and promote regional competitiveness, has caused the continuation and sometimes intensification of imbalances in the territorial space and turned regional development into a marginal thing in these years. Thus, decades after the introduction of the concept of regional planning in the theoretical and experimental planning texts in Iran, reaching balanced development by emphasizing competitive advantage, population decentralization, activities, and facilities remains to be the main concern of planners and policymakers in the country (Ghiabi and Agha Mohammadi, 2020).

As currently, Khuzestan accounts for about 14% of the production of Iran's agricultural sector, the researcher tries to assess the competitiveness of Khuzestan agriculture by presenting a comprehensive model by careful examination of it. Regarding this, firstly, all the cities of this province will be compared and prioritized in a model. The base of the problem is that despite the high volume of production of different agricultural products in the province, low employment, poverty, and undesirable social consequences are prevalent in rural areas. Although more than 110 types of agricultural products are produced in Khuzestan, the study will examine basic products such as sugarcane, sugar beet, vegetables and summer crop, wheat, corn, canola, dates, citrus, red meat (beef, buffalo, and mutton) poultry meat, rice, fish and shrimp as the main agricultural products.

Since some indices and components of the current study are the results of numerous research by researchers, experts in the field of competitiveness, the current model, in addition to having the features of other models, has innovations in the following dimensions: 1) Simplicity and smoothness, 2) dynamism of the designed model, 3) versatility, 4) being scientific, and 5) comprehensiveness.

In the related literature, mainly one product was generally evaluated in the country, while the current study evaluated and analyzed all the agricultural products in the province by city. All the cities and products were ranked based on the variables effective on competitiveness.

Thus, considering the existing issues and problems, the main question of the study is as follows: "How is the competitiveness model of agricultural products in Khuzestan?" that leads to the following sub-questions:

The first question: What are the aspects of the model for evaluating the competitiveness of agricultural products?

The second question: What is the level of competitiveness of each product in the city and province using the above model?

The third question: Can the above competitiveness be considered the same?

1.1 Theoretical Background

According to the theoretical and experimental studies carried out, the total productivity of production factors is considered as the most proper index to examine the competitiveness of industry (Nili et al., 2014). Business economists have considered the concept of competitiveness in the evolution of comparative advantage theories. According to Adam Smith's definition, the absolute advantage is the ability of a country to produce more of a particular commodity with the same value (Jani, 2016). In their study, Naghilou et al. (2020) presented an analytical framework and stated that the proposed analytical framework has five general areas including market management, market structure, market capability, market ecosystem, and market competitiveness. The conceptual model derived from the code framework was identified as a process system from the market ecosystem and market management to sustainable competitiveness of sports services. Hence, one can state that ignoring any of the elements or components can upset the relative order and balance in the competitive structure of the Iranian sports services market (Naghilou et al., 2020).

Over the past two decades, the managers have undergone a period of dramatic global change because of the advances in technology, the globalization of markets, and new economic and political conditions. Nowadays, organizations have to be able to increase their competitiveness and profitability using the existing models of competitiveness and expert opinions. The studies regarding competitiveness can always bring new outcomes (Shafiei Rudposhti et al., 2019).

The view of competitive advantage was expressed by Michael Porter. He argues that a country, considering its special characteristics could create an environment where the creation of competitive advantage is encouraged by domestic firms so that it could produce and export goods that include the continuous growth of that country. To the Organization for Economic Co-operation and Development (OECD), competitiveness is a country's ability to produce goods and services to offer in international markets while simultaneously maintaining or enhancing citizens' long-term income levels (Porter, 1990).

According to the United Nations Conference on Trade and Development (UNCTAD), the concept of competitiveness is the ability of countries to sell products on global markets. According to the Institute for Development Management, national competitiveness is not in the sense of a community of individual firms, but the result of several factors like how the government is run by the government, social policies, and value creation mechanisms. In this definition, competitiveness means the country's ability to create value-added and increase the wealth of society through asset management and attractiveness, and so on (Institute of Development Management, 2013).

Based on the definition of the World Economic Forum (WEF), competitiveness is a set of institutions, policies, and elements that specify the level of productivity of a country. The level of productivity specifies the level of the economic well-being of the people in the country's economy. In other words, one can state that competitive economies provide a higher level of welfare for their citizens. The WEF has developed a competitiveness index to calculate the competitiveness of countries using the ideas of Michael Porter, who equates national competitiveness with productivity. The purpose of the economic goal of societies is the sustainable improvement of people's living standards (Nili et al., 2014). Porter (1990) believes that competitive strategy has to be derived from a complex understanding of the industrial structure and how it changes. In an industry, whether domestic or international, competition is divided into five forces: 1- the threat of newcomers to the industry, 2- the threat of alternative products and services 3- bargaining power of suppliers 4- bargaining power of buyers and 5- the competition between the existing competitors. The power of these five forces differs from one industry to another. As Porter states (2003), when faced with five competitive forces, there are three types of generic strategies to overtake other competitors in an industry or company in each industry - 1- leading in cost, 2- differentiation, and 3- focus - sometimes a company can pursue more than one strategy as the purpose (Makin and Ratnasiri, 2015).

Competitiveness is the ability to increase the market share or profitability and survival in the global competition for a long period. To accomplish the objectives of non-oil exports development, the agriculture and medical herbs sector can play an important role in developing such exports due to several reasons such as the climatic conditions and the Abundance of natural resources and medicinal herbs (Mohammadzadeh et al., 2018).

1.2 Empirical Background
Gopinath and Carver (2011) studied the key export determinants of the agricultural sector of the Organization for Economic Cooperation and Development using the panel data method for the periods 1975-1995. The results indicated that productivity and physical capital have had positive and significant effects and the real exchange rate negative effects on the export share of the countries examined.

Using their model to explain Structural Vector Auto Regression (SVAR) and quarterly data of four industrialized countries (USA, UK, Canada, and Australia) during 1975-2005, Ravn et al. (2013) indicated that the increase in government expenditure led to an increase in production, private consumption and the trade balance worsens. Gupta (2019) analyzed the comparative advantage and competitive advantage economically and after stating the factors affecting the comparative and competitive advantage, concluded that the advantage of goods and services in international trade. Additionally, according to the study, elements like production, exchange rate efficiency, and government policies have a critical role in the competitiveness of countries.

Yang and Lee (2015) identified and studied the competitive factors in several industries and calculated the relationship between the level of competitiveness of companies in an industry and the innovations established in that industry. Their results indicated that in the industries with more innovation and creativity in technology, the level of competitiveness of companies operating in that industry is significantly higher.

Parakhina et al. (2018) stated that the main conclusion of the study was that the key issue of competitiveness of Russian universities is the lack of strategic flexibility. We can state that there is a structural nature of the management crisis that affects the entire university education system. Over the past 25 years, there have been many changes in the

fundamental conditions for the development of higher education institutions in Russia such as the changes in the value and model of financing, market prospects and the regional environment, the conditions and nature of interaction with international partners, and so on. In most cases, the system platform and domestic policy standards have remained intact. Russian education has lost its individuality. This paper shows the experience of strategic management in Russian federal and regional universities and analyzes the implementation of development plans with some examples of best practices and applications of strategic planning tools.

Korez-Vide and Tominc (2020) studied competitiveness, entrepreneurship, and economic growth and stated that the economic growth of a country and consequently the standard of living of its population is associated with several factors inside or outside the control of policymakers, institutions, companies, and individuals. A country's competitiveness includes both internal and external variables of economic growth although differently conceptualized and measured. The purpose of the chapter was to find out if a country's competitiveness and economic growth are connected or not. As a measure of competitiveness, we used the WEF's Global Competitiveness Index as a measure of growth. Nonetheless, GDP per capita was used. The study was carried out on a sample of EU countries in Eastern and Central Europe, which was due to their political background and similar opportunities after the political upheavals of the early 1990s. The observed period was partly from 2004 to 2013 when all these countries joined the EU, and partly from 2008 when the financial and economic crises started.

According to the results obtained in the first stage, Bandarian et al. (2020) identified 50 components in 7 identification groups. According to the results of the second stage, it was found that the components "knowledge management and creativity and innovation", "finance", "information technology," "economic performance" and "infrastructure" have the greatest effect on the competitiveness of Iranian engineering companies and consulting engineers in the field of oil, gas, and petrochemicals, respectively.

Using the Ordinary Last Squares (OLS) method and Revealed Comparative Advantage (RCA), Amoroso et al. (2011) examined the effect of factor inventory and productivity on the competitiveness of 39 Mexican regions with 11 countries during 1965-2005. The findings indicated that productivity, capital, and labor have an important role in determining the pattern of competitiveness. However, capital and labor specify the business model more than productivity according to comparative advantage.

Boansi and Crentsil (2013) studied Ethiopian competitiveness in coffee exports using the comparative advantage and RCA indices for the years 1961-2010. The findings indicated that Ethiopia has a comparative advantage in coffee exports during this period and the government will increase the comparative advantage index in the coming years by removing restrictions, supporting producers, and work has to be done to increase the area under cultivation to use labor force efficiently.

Boansi (2013) studied the competitiveness and determinants of Ghanaian cocoa exports for the three periods 1969-1964, 1992-1983, and 2010-2000 using the indices of comparative advantage and RCA. The findings indicated that the competitiveness of Ghana in cocoa and its products has increased during the periods examined. The study focused on the significance of the positive relationship between exchange rates and exports in increasing competitiveness.

Makin and Ratnasiri (2015) have used Autoregressive Distributed Lagmodel (ARDL) to examine the effect of government spending on Australia's competitiveness during 1995-1998. The results of the study showed that government has a significant effect on reducing competitiveness.

In their study entitled, "Factors effective in tourism competitiveness (Case study: Sarein), Afrakhteh et al. (2019) stated that one of the big problems today in the tourism industry is the lack of competitiveness. One of the basics of this problem is the lack of a specific approach to increase competitiveness, and a direct relationship between increasing the competitiveness of a country and the competitiveness of the firm. The purpose of the paper is to evaluate the prioritization of effective factors in tourism competitiveness in the Sarein region using and combining two models of Crutch-Ritchie and Kano. The study was carried out by survey and with the help of a questionnaire with 573 sheets among tourists, businessmen, and local people from June 5 to August 6, 2017. The results were analyzed using factor analysis and in LISREL software. The results showed that among the 6 indices in the integrated model, resources and attractions, destination management, reinforcing factors, policy planning and destination development, tourist satisfaction, factors, and support resources have priority, respectively.

In their study entitled, "Measurement and analysis of competitiveness indices in west Asian countries with emphasis on Iran," Akbari et al. (2019) stated that the level of competitiveness of the world is one of the key criteria that considers many micro and macroeconomics variables. This index has a key role in maintaining the survival of any country. The type of applied study and its method is descriptive-analytical. Data collection tools to examine competitiveness indices in the form of 12 main components and related data are collected from the report. Shannon entropy models, TOPSIS, scattering coefficient model, global Moran spatial correlation method, and Arc Gis software were used to analyze the data. The findings indicated that the countries of the United Arab Emirates, the occupying regime of Quds, and Qatar are in the first to third ranks with the highest TOPSIS score, and Iran with the TOPSIS

score of 0.51 is in the eighth place and Yemen with the lowest score is in the last place. Moreover, Moran's index in all twelve components of competitiveness is less than one, which we conclude that the pattern of distribution of components among the countries of the West Asian region as a random pattern (Random) and SHOWS the unplanned spatial distribution of competitiveness indices.

In their study entitled, "Development of an indigenous model for measuring tourism competitiveness," Boroumand et al. (2018) stated that Iran's tourism destinations have been a long time since the beginning of the topics associated with measuring competitiveness in the field of tourism. Several models have been developed for various purposes since Porter introduced the first model in 1990, but the localized model has not yet been designed to measure this index among Iran's tourism destinations according to the specific variables of Iran. To this end, the library method was used by examining the valid models in the literature and selecting variables appropriate to Iran's tourism destinations to extract the variables of the native model considered in the first stage. Then, qualitative interviews with tourism industry experts, public sector managers, and private sector activists up to the stage of theoretical saturation were used to complete the variables. The results are presented as a model with 9 indices including security, infrastructure, destination services, and accommodation facilities, price competitiveness and destination atmosphere, human factors, destination environment, recreational and event attractions, destination management, and finally information and planning.

In their study entitled, "A glance at the competitiveness of the video game industry and porter diamond model," Mehrabi and Tofighfar (2017) stated that the present age is the age of competition. An age when efforts are constantly being made to gain a better position in cost management, earning more revenue, and increasing efficiency and effectiveness in manufacturing and business activities. Additionally, the process of globalization and the expansion of consumer markets, increasing the number of competitors and the intensity of competition give importance and double attention to concepts such as competitiveness more than other factors. This requirement has led companies in different industries and countries to enhance their competitiveness, identify factors affecting competitiveness and strengthen it.

In their study entitled, "Determinants of Iran's competitiveness in the agricultural sector," Gilak Hakimabadi et al. (2016) stated that creating a competitive environment in society and promoting domestic and international competitiveness provide the necessary grounds for entering the global process. Given the necessity of expanding and developing non-oil exports and the significance of export development of the agricultural sector, the study uses panel data method and based on statistical data to estimate and determine the factors determining the competitiveness of Iran's agricultural sector in 1995-2011. The results of estimating the panel data model indicate that the per capita capital and total productivity of the factors of production have a positive and significant effect and the exchange rate, weather conditions (rainfall) and external shock (especially the intensification of sanctions) have a negative and significant effect on the competitiveness of Iran's agricultural sector (symmetric apparent comparative advantage index) during the period under examination. Based on the study results, it is suggested that special attention must be paid to the factors affecting competitiveness, enhancing the productivity of production factors, and providing suitable conditions for the development of agricultural production.

Mohammadzadeh et al. (2020), in their study entitled "analysis of the competitiveness of Iranian saffron exporting companies in global markets," used the symmetric apparent comparative advantage and analysis of the factors effective on it by the use of the Porter's Diamond Model and Fractional logit panel regression model. The required statistics and information were extracted using questionnaires distributed to 35 Saffron exports companies during 2011-2016. The results indicated that the six factors of Porter's diamond, including demand conditions, factor conditions, related and supporting industries, firm strategy, government, and unpredictable events and incidents, affect the competitiveness of the companies under study.

Seyfollahi et al. (2021), in their study entitled "Designing a model for the competitiveness of agricultural exports," used a semi-structured interview with 14 participants to gather the data and used the grounded theory approach and the paradigm model for data analysis. In this study, the codes identified were categorized into 6 main core categories: causal, content, contextual, interventionist, strategies, and consequences. The results indicated that these factors are effective on the improvement in the competitiveness of agricultural products exports.

2. Materials and Methods

The study was applied in terms of purpose and descriptive-correlational and qualitative in terms of data collection. The case study method was used in the qualitative data collection stage, where the researcher had to make a detailed observation of the aspects examined and interpret the observations from a holistic perspective. This was because the researcher examines the characteristics of the "case", its environmental conditions, effective factors, and in general any aspect that can make the "case" more obvious to deeply understand a "case" (Bazargan Harandi, 2015). Moreover, case studies are very useful for describing rare events as well as providing concepts widely accepted (Hooman, 2017). Attention to the status of agricultural products in Khuzestan in the country and the need to examine and eliminate its

weaknesses and strengthen its strengths and to use opportunities and deal with threats and economic effects of this study is quite practical in line with the components of competitiveness. Data collection for information required was by library method and the tools of direct papers and documents were used to extract information during the fourth and fifth development plans of the Islamic Republic of Iran. As Khuzestan has 27 cities and since none of its cities has significant comparative advantages in agriculture based on basic variables like production, the area under cultivation, and having safe agricultural water, some of the major cities and products of the province are selected and ranked based on these indices. To this end, the researcher tries to use decision models.

The population of the study was experts and managers aware of the competitiveness of agricultural products in Khuzestan. The list of the population was prepared with the opinion of the supervisor with the following common features:

1. Should be familiar with the competitiveness of agricultural products in Khuzestan
2. Should collaborate on at least one of the outputs of academic research performance
3. Has done at least one item related to competitiveness

The sampling method used was purposive (judgmental). Among the faculty members were the managers of agricultural departments in Khuzestan. At the discretion of the supervisor, a list of experts in this department was prepared and interviewed. Data obtained from experts were analyzed. To determine the sample size in the qualitative method, sampling was done from a limited population and until the saturation stage. The contents of the interviews were analyzed and the interview and data analysis process continued until no new information was received in the interviews. Fifteen people were examined in this study.

The data collection tool was a semi-structured interview. Interviewing is a data collection method where the researcher gets into direct contact with people and by asking different questions, deeply evaluates people's attitudes, interests, and beliefs. The interviews were carried out with experts and people with expertise on topics where they have experience and expertise. There are people with information impossible to obtain from other people, so interviewing these people is important in the study and can be effective in advancing research. Thus, in interviewing experts, the interviewer collects data from people who have a particular knowledge or perspective that is inaccessible to others (Gal et al., 2017).

Besides having unique information about their knowledge, the experts have another advantage, which is that they "often have better communication skills than other members of the study" (Gal et al., 2017). There are no specific rules for analyzing data from qualitative research interviews. However, when such a discussion is faced, there is the presumption that the researcher has the notes of all the interviews. Naturally, the interviewer can't take notes of all the material unless another person is with him and takes notes or the interview is recorded. Hence, familiarity with the data is essential before starting any analysis. This calls for reading the notes more than once (Danaeifard and Alvani, 2011). Interview analysis can be part of theorizing, testing theory, or applying results. The purpose, title, and nature of the items and information in the interview specify which approach is more suitable for the analysis of the interview. The theme analysis method was used in the study to analyze the data obtained from the interviews.

The theme analysis method was used to analyze the text of the interview. The data was collected using interviews with 15 experts on the competitiveness of agricultural products in Khuzestan. The questions asked were associated with the aspects of the study background. The test-retest reliability method and the intra-subject agreement method were used to calculate the reliability of the interviews, and test-retest to calculate the validity. The reliability of the test-retest of the interviews conducted in the study is 0.76 and as this value is more than 0.60, it is acceptable. In the theme analysis method in this section, first, the transcripts of semi-structured interviews were carefully examined to identify the competitiveness of agricultural products in Khuzestan, and various concepts used in this research were extracted after entering them in the tables and separating their meaningful sentences. These concepts are encoded in the table according to the apparent contents, in the conceptual categories that show an independent concept.

2.1 Data preparation

By preparing written copies of the content of the interviews and individuals' answers to the interview questions, the qualitative data were sorted by question number and the answers of each expert to each question were written together.

2.2 Encoding

After studying the conversations of the interviewees and their qualitative analysis to create meaning from the obtained tables, these tables were placed in a file as an integrated table. After arranging them based on the specified code, the sentences associated with a code were given a title according to their meanings and commonalities. The following are the tables related to coding.

At this stage, by several reviews of the data collected through interviews, its different angles were examined. Indeed, by reviewing the collected dataset, the concepts hidden in the collected data were retrieved. At this stage, the concepts were named without any restrictions. After open coding, the main axes in the dataset were identified and coding was done around these axes in the next stage.

In the first column of this table, a code from I_1 to I_{10} was assigned to each interviewee, and in the second column, the verbal statements and what the experts have stated about the competitiveness of agricultural products in Khuzestan were given in detail. In the open coding column, the important concepts of each of the verbal propositions are presented and the axial coding column, associated with the competitiveness of agricultural products in Khuzestan, was completed in the last stage.

In qualitative analysis, the interviews were conducted using open coding and axial coding of categories that led to the identification of concepts and aspects of competitiveness of agricultural products in Khuzestan.

Semi-structured interviews with an emphasis on an exploratory approach were used in the study. The decision was made since the purpose of the study was to identify primary and in-depth theoretical models for future experimental studies based on qualitative results. Hence, according to the results, it is intended to identify ideas that can be used to conduct quantitative studies with a large sample with a theory test approach. At the start of the study, the plan was to schedule randomly selected interviews with about 15 randomly selected administrators, faculty, and experts, according to the estimated time for the study.

At the start of the interview, the purpose was stated and it was emphasized that the interviews will be used only for research purposes. At the end of each interview session, the interviewees were asked to add anything they wished to the plan.

The interviews transcripts were carefully implemented and used for analysis along with the notes taken. The theme analysis method is widely used in qualitative studies to analyze the text of interviews. In this method, the interview is first implemented from the recorded audio of the interview session and was completed using the notes taken during the interview sessions. Then by careful examination of these texts, first for each of the prepared interviews, all independent ideals in the form of concepts and sub-themes (each of the aspects) were identified, and then a code was assigned to each of them.

Data analysis in this study was made possible using the expert method. The expert method is the commonest form of interview analysis to produce meanings. First, encoding and classification of the existing text units into meaningful and logical categories (themes) were done using this method and considering the three characteristics of learning, cross-design, and independence. The extracted main themes and sub-themes (conceptual categories) were presented according to the topic discussed. Then some tables were prepared from the statements made by the interviewed experts that reveal reaching the results of these interviews. In this section, first, the transcripts of the semi-structured interviews were carefully reviewed to evaluate and present the model of competitiveness of agricultural products in Khuzestan, and different concepts used in the study were extracted after entering them in the tables and separating their meaningful sentences in various lines.

The following steps were carried out in the theme analysis and the results were obtained as relevant tables.

Step 1. The researcher must immerse himself in data to some extent for the familiarity them: to become familiar with the depth and breadth of the data contents. Immersion in data usually involves "several re-reading of the data" and actively reading the data (searching for meanings and patterns).

Step 2. Creating the initial codes: The second step starts when the researcher has read the data and become familiar with it. This step involves creating the initial code from the data. The codes introduce a data attribute that seems interesting to the analyst. The coded data are different from the analysis units (themes).

Step 3. Searching themes: This step involves categorizing various codes into potential themes, and sorting all the encoded data summaries into specified themes. Indeed, the researcher starts to analyze his or her code and considers how various codes can be mixed to create a general theme.

Step 4. Theme review: The fourth step starts when the researcher creates a set of themes and reviews them. This stage involves two stages of reviewing and refining themes. The first step involves reviewing the level of coded summaries. In the second stage, the validity of the themes regarding the dataset is considered.

If the theme map works well, then one can move on to the next step. However, if the map does not fit well with the dataset, the researcher will have to go back and cod himself until a theme map is satisfied. The section to be created will continue.

Step 5. Defining and naming themes: The fifth step starts when there is a satisfactory map of the themes. At this step, the researcher defines and revises the themes he or she presents for analysis, then analyzes the data within them. By defining and reviewing, the nature of what a theme is discussing is determined and it is determined which aspect of the data each theme contains.

Step 6. Preparing a report: The sixth step starts when the researcher has a set of fully integrated themes. This step includes the final analysis and writing of the report

In this section, firstly, the transcripts of semi-structured interviews were carefully studied to identify the competitiveness of agricultural products in Khuzestan, and the different concepts used in this study were extracted after entering them in the tables and separating their meaningful sentences in various rows. These concepts have been encoded in the table based on the apparent contents, in the conceptual categories that show an independent concept.

As Table 1 shows, a code is defined according to the verbal propositions as a specific concept; therefore, the economic factor is evaluated with 6 codes.

Similarly, all factors were encoded and the relevant aspects were identified in the semi-structured interview as described in the Table 2.

Several codes that have a specific meaning of that factor are extracted based on previous findings and the opinions of the interviewees in the final stage for each of the factors.

2.3 Theme map of the information from the present study

In the theme analysis method, the map of themes has to be available to the analyst. At this stage, the created themes are defined and reviewed, and the sequence data is analyzed. Then the nature of what a theme is discussing is determined and which aspect of the data it has is determined too.

The following is a map of the themes obtained from the information collected in the study (Figure 1).
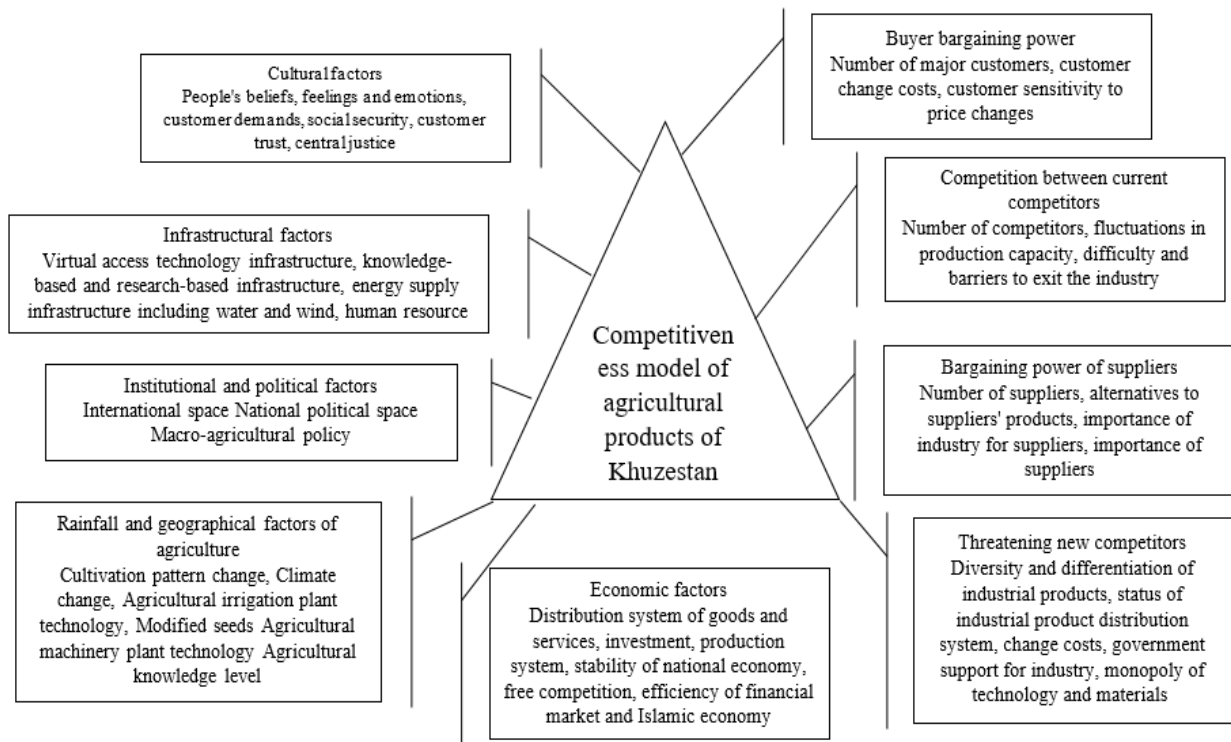

Figure 1. Map of the themes obtained from the information collected in the study

3. Results and Discussion

The first research question: What aspects does the model for evaluating the competitiveness of agricultural products have? By reviewing the interviews of experts in the study and distributing the questionnaires to 15 experts, statistical data were collected based on the opinions of these people where the aspects of the competitiveness evaluation model of agricultural products were introduced as follows according to the results from data analysis:

-Economic factors
-Cultural factors
- Infrastructure factors
- Institutional and political factors
- Rainfall and geographical factors of agriculture
- Threatening new the new competitors
- Bargaining power of the suppliers
- Competition between current competitors
- Bargaining power of buyers

TOPSIS method was then used to prioritize the factors effective in the competitiveness model of agricultural products.

Based on the above, the weights obtained from the multicriteria decision-making have been extracted and obtained as follows (Table 3).

•
Thus, the mathematical model will be as follows.
• $0.097EF+0.051CF+0.134IF+0.1IP+0.064RG+0.14TC+0.105BS+0.062CC+0.248BB$ MAX competitiveness=

• S AND T:
• $EF \geq 0$
• $CF \geq 0$
• $IF \geq 0$
• $IP \geq 0$
• $RG \geq 0$
• $TC \geq 0$
• $BS \geq 0$
• $CC \geq 0$
• $BB \geq 0$
• $EF, CF, IF, IP, RG, TC, BS, CC, BB \geq 0$

The second research question: How much is the level of competitiveness of each product in the city and province using the above model? The findings indicate that the most competitive cities in Khuzestan in the agricultural products stated were Dezful, Susa, Andimeshk, Ahvaz, Shushtar, Behbahan, and Ramhormoz, respectively, and the least competitive ones were Aghajari, Lali, Indika, Haftkol and Masjed Soleiman, respectively. Based on the studies carried out according to the explored model concerning the competitiveness of products of each city according to the fourth and fifth development plans, the level of competition in the production of agricultural products in Khuzestan is a function of different elements including economic factors, cultural factors, infrastructure factors, institutional and political factors, rainfall and geographical factors of agriculture, threatening new competitors and the bargaining power of suppliers, competition between current competitors and the bargaining power of buyers. Thus, one can state that the highest average competitiveness in wheat production in the fourth and fifth development plan has been 268 thousand tons in Susa. The highest average date production in the fourth and fifth development plans was 55,800 tons in Abadan. The highest average level of competitiveness in citrus production in the fourth and fifth development plans was 59,100 tons in Dezful. The highest average level of competitiveness in corn production in the fourth and fifth development plans was 154,000 tons in Susa. The highest average level of competitiveness in canola production in the fourth and fifth development plans was 4300 tons in Behbahan. The highest average level of competitiveness in sugarcane production in the fourth and fifth development plans was 2074,000 tons in Ahvaz. The highest average level of competitiveness in sugar beet production in the fourth and fifth development plans was 277,000 tons in Andimeshk. The highest average level of competitiveness in vegetable and summer production in the fourth and fifth development plans was 760,000 tons in Dezful.

The third research question: Can the above competitiveness be considered the same? We can consider that the level of competitiveness is not the same for various cities in Khuzestan and it is variable. Competitiveness has been

defined as the ability and willingness to compete. On a micro-scale, competitiveness is the value a product creates for a customer compared to a competitor that this depends on two key elements: the degree of satisfaction met by acquisition or possession of a product for the customer benefits and the cost of creating from the acquisition or possession of that product for the customer. Excellence in either of these two elements makes the organization competitive. If an organization bases its strategy on providing special and superior benefits to the customer relative to the competitor, it has selected the differentiation strategy. However, if it bases its strategy on offering a non-competitive price by the competitor, it follows the cost leadership strategy. Differentiation strategy enhances competitiveness through more benefits, and cost leadership strategy makes the organization more competitive by reducing disadvantages (costs) relative to the competitor. Each of these strategies will make the organization competitive in a competitive product market. Examining the analysis of quality attitudes with a competitive model reveals the delicate and at the same time important aspects of the relationship between various attitudes of quality and the success of the company. The analysis of the definition of customer-centered attitude with the pattern of competitiveness reveals that this attitude pays good attention to the components of customer interests but is silent about the interests of the shareholder. Under this situation, even if the customer is satisfied, the company ability to carry on decreases every day making the organization becomes vulnerable to unexpected events. The competitiveness model is a conceptual model that balances the benefits and costs of supply and demand. Long-term business success is guaranteed whenever this relationship reaches the optimal point. This model is very valuable and provides an effective analytical base for evaluating various management approaches and their effect on the success of the organization.

Implementing the designed model in Khuzestan: each of these models has usually looked at the concept of competitiveness of agricultural products from various perspectives to introduce the marketing structure, which has caused various models to have asymmetric structures in various aspects. Typically, the models dealing more with competitiveness have focused more on horizontal organizational structures and the issues of human force and sales teamwork, starting with the evaluation of the competitiveness of agricultural products from the senior management levels of the organization. On the contrary, the models prioritizing customer responsiveness and adaptability prioritize speed in operations and effort for external coordination through the creation of virtual structures. In most competitiveness models, static structures have been used and the position of the model feedback status is not defined well.

Table 1. Encoding the interview content data on economic factors

Axial code	Open Code	Verbal proposition	Interviewees' codes
Economic factors	Goods and services distribution system	We are always worried that the characteristics of the distribution of goods and services in the agricultural sector are unfair.	14, 15, 18, 10
	Investment market characteristics	The existence of market and target market fluctuations and infrastructures of market type, market share, and capital market will help enhance and operationalize the dynamics of the agricultural products market.	13, 15, 16, 17
	Production system	The turmoil in the production system weakens the competitiveness of agricultural products and reduces the level of market balance.	11, 12, 14
	The stability of the national economy	The more stable the national economy, the greater the stability of agricultural competition will be	11, 13, 16
	Free competition	Free competition in agricultural products is a precondition for competition.	11, 17, 18
	The efficiency of the Islamic financial market and economy	The financial market based on Islamic economics regulates the competition of agricultural products based on Islamic criteria.	18, 19, 10

Table 2. Identified codes for each of the competitiveness factors

Factors	The aspects identified
Economical	Production system, national economic stability, free competition, financial and economic market efficiency
Cultural	People's beliefs, feelings, and emotions, people's desires, security, trust, justice
Infrastructure	Virtual access infrastructure, knowledge, research and skill infrastructure, energy and water supply infrastructure, human infrastructure.
Institutional and political	International space, national political space, and macro agricultural policy
Agricultural geography	Changing the cultivation pattern
	Climate change, the technology of agricultural irrigation facilities, improved seeds, the technology of agricultural machinery facilities, level of agricultural knowledge
Threatening new the new competitors	Diversity and differentiation of industry products, the value of industry investment, the status of the distribution system of industry products, the costs of changing government support for industry, monopoly of technology and raw materials
Bargaining power of suppliers	The number of suppliers, alternatives to suppliers' products, the importance of the industry to suppliers, and the significance of suppliers
Competition between current competitors	The number of competitors, fluctuations in production capacity, difficulty, and barriers to exit the industry
Bargaining power of the buyers	Number of major customers, customer change costs, and customer sensitivity to price changes

Table 3. Weights obtained from multi-criteria decision making for each of the competitiveness factors

Variable	Name in the model	The weights obtained
Economic factors	EF	0.097
Cultural factors	CF	0.051
Infrastructural factors	IF	0.134
Institutional and political factors	IP	0.1
Rainfall and geographical factors of agriculture	RG	0.064
Threatening new competitors	TC	0.14
Bargaining power of suppliers	BS	0.105
Competition between current competitors	CC	0.062
The bargaining power of buyers	BB	0.248

Given the significance and position of the competitiveness evaluation process of agricultural products, it is essential to use a model suitable to Khuzestan, and taking steps in a dynamic environment to reach a competitiveness assessment model for agricultural products is suggested. Like any other research, the present study has some limitations.

However, it was tried to minimize the limitations and obstacles by applying measures such as an anonymous questionnaire, motivating respondents and explaining the purpose of the study sufficiently, organizing meetings with national managers of the province agricultural sectors, conducting different correspondence to attract the cooperation of the company, and so on. Nonetheless, some of the most important limitations of the study are as follows:

The complexity of the processes: In the research site, there were work and operational processes with their complexities so that in one part of the work processes need to have a variety of skills to be carried out.

- Moreover, there are major factors in any study that differ from one study environment to another and may overshadow the results of the study.

4. Recommendation

Desirable investment in the production system to reach the national economic stability, planning for the creation of virtual access technology infrastructure in the agricultural sector, planning for the creation of knowledge and research-based infrastructure in the agricultural sector, changing the cultivation pattern and provision of training for the agricultural sector, use of improved seeds in all sectors and parts of agriculture, use of technology of agricultural machinery facilities, upgrading the level of agricultural knowledge in strategic planning for various resources, paying attention to the target marketing and market position of agricultural products.

Suggestions for further studies:

1. Investigation of the role of changing the cultivation pattern and training it to increase agricultural products' competitiveness.
2. Investigation of the role of knowledge-based and research-oriented programs to increase the competitiveness of agricultural products.
3. Investigation of the role of marketing and market position of agricultural products in increasing competitiveness.

References:
1. Afrakhteh, H., Jalalian, H., and Arami, I. (2019). Factors Affecting Tourism Competitiveness (Case Study: Sarein County). Planning Studies for Human Settlements, 14(2), 457-472.
2. Aghaei, M., and Rezaghilizadeh, M. (2019). A Study of Iran's Comparative Advantage in Saffron Production. Quarterly Journal of Agricultural Economics and Development, 25(1), 121-132.
3. Akbari, A., Akbari, E., Ansari, M., and Bustan Ahmadi, M. V. (2019). Measuring and Analyzing Competitiveness Indicators in West Asian Countries with Emphasis on Iran. Regional Planning, 9(33), 1-14.
4. Amoroso, N., Chiquiar, D., and Francia, M. R. (2018). Technology and Endowmentsas Determinants of Comparative Advantage: Evidence from Mexico. North American Journal of Economic, 22(2), 164-196.
5. Armen, S. A. and Kurdzanganeh, N. (2017). Assessing the comparative advantage and government involvement in industrial activities: A case of Khuzestan region. Iranian Economic Research Quarterly, 30, 93-118. (In Persian)
6. Bandarian, R., and Jazayeri Mousavi, S. M. H. (2020). Explaining Competitiveness in Iranian Engineering Companies and Consulting Engineers in the Field of Oil, Gas, and Petrochemicals. Business Management Explorations, (24), 185-213.
7. Bazargan Harandi, A. (2015). Introduction to Qualitative and Mixed Research Methods: Common Approaches in Behavioral Sciences. Didar Publications.
8. Boansi, D. (2013). Competitiveness and Determinants Determinants of Coca Exports fromGhanafrom Ghana. International Journal of Agricultural Policy and Research, 1(9), 236-254.
9. Boansi, D., and Crentsil, C. (2013). Competitiveness and Determinants Determinants of CoffeeExports, Producer Price and Production for Ethiopia. MPRA Paper, (48869), 1-25.
10. Boroumand, B., Kazemi, A, and Ranjbarian, B. (2018). Development of a local model for measuring the competitiveness of tourism in Iran. Modern Marketing Research, 8(2), 105-122.
11. Candau, F., Guepie, G., and Schlick, J. (2019). Moving to autarky, trade creation and home market effect: an exhaustive analysis of regional trade agreements in Africa. Applied Economics, 51(30), 3293-3309.
12. Danaeifard, H., and Alvani, S. M. (2011). Qualitative research methodology in management: a comprehensive approach. Ishraqi Publications.
13. Gall, M. D., Burke, W., and Gall, J. (2017). Quantitative and Qualitative Research Methods in Educational Sciences and Psychology. Vol. 2. Shahid Beheshti University Press.
14. Ghiabi, M. R., and Agham Mohammadi, A. (2020). A Review of the Concept of Competitiveness and Its Different Levels with a Look at Regional Competitiveness. In: Second Conference on Environment, Civil Engineering, Architecture, and Urban Planning.
15. Gilak Hakimabadi, M. T., Rasekhi, S., and Jabbari, V. (2016). Factors Determining Iran's Competitiveness in the Agricultural Sector. Agricultural Economics Research, 8(2). 186-191.
16. Gopinath, M., & Carver, J. (2011). Total factor productivity and processed food trade: a cross-country analysis. Journal of Agricultural and Resource Economics, 27(2), 539-553.
17. Gupta, D. S. (2019). Comparative Advantage and Competitive Advantage an Economics Perspective and a Synthesis. In: Canadian Economics Association Conference, Toronto.
18. Hooman, H. A. (2017). Recognition of Scientific Method in Behavioral Sciences. In: Organization for the Study and Compilation of University Humanities Books, pp. 45-69.
19. Institute of Development Management (2013). MCE working with the Life Sciences Industry. https://mce.eu/strategic_areas/life sciences/?gclid.
20. Jafarzadeh, M. R., Hosseinzadeh Shahri, M., Rah-e Chamani, A., and Saei Arsi, I. (2018). Presenting a Model for Identifying Business Opportunities Using Social Networks in Iran. In: The First National Conference on Entrepreneurship, Chalous.
21. Jani, S. (2011). Effective Factors Analysis on Competitiveness inIran and South West Asian Countries. Economic Research and Policies, 19(58), 159-188.
22. Karbasi, A., and Rastegaripour, F. (2014). A study of the comparative advantage of saffron production and export. Journal of Saffron Agriculture and Technology, 2(1), 135-141. (In Persian)

23.   Korez-Vide, R., and Tominc, P. (2020). Competitiveness, Entrepreneurship and Economic Growth. In: Trąpczyński P., Puślecki Ł., Jarosiński M. (eds) Competitiveness of CEE Economies and Businesses. Springer, Cham.

24.   Makin, A. J., and Ratnasiri, Sh. (2015). Competitiveness and government expenditure: The Australian example. Economic Modelling, 49, 154-161.

25.   Mehrabi, M., and Tofighfar, B. (2017), Porter Diamond Model, Competitiveness and Video Game Industry. In: Digital Games Research Conference; Trends, Technologies, and Applications, Tehran.

26.   Mohammadzadeh, S.H., and Karbasi, A. (2018). Factors affecting the selection of strategies for entry into the foreign market of medicinal plants case study: Khorasan Razavi province. Quarterly journal of Agricultural Economic and Development, 32 (2), 117-131.

27.   Mohammadzadeh, S.H., Karbasi, A., and Mohammadi, H. (2020). Analysis of competitiveness of saffron exporting companies in global markets. Saffron Agriculture and Technology, 8 (2): 276-261.

28.   Naghilou, Z., Naderi Nasab, M., and Hemmatinejad Tooli, M. A. (2020). Designing a Competitiveness Model in the Iranian Sports Services. Sports Management and Development, 24, 1-18. (In Persian)

29.   Nili, M., Dargahi, H., and Fatemi, S. F. (2014). Productivity of Iranian Industry: A Study of the Competitiveness of Industrial Enterprises. Second ed. Iran Economy Publications, Tehran, Iran. (In Persian)

30.   Parakhina, V. Godina, O., Boris, O., and Ushvitsky, L. (2017). Strategic management in universities as a factor of their global competitiveness. International Journal of Educational Management, 31(1), 62-75.

31.   Porter, M. E. (1990). The Competitiveness Advantage of Nations. New York: The Free Press.

32.   Porter, M. (2003). Competitive Strategy of Industry and Competitors Analysis Techniques. Fourth ed. J. Majidi & A. Mehrpooya, trans. Tehran: Rasa Cultural Services Institute.

33.   Ravn, M. O., Schmitt-Grohé, S., and Uribe, M. (2007). Explaining theEffect of Government Spending Shocks on Consumpption and Real Exchabge Rate. NEBER Working papers. 13328, National Bureau Research, Inc.

34.   Salami, H., and Pishbahar, E. (2018). Changes in the Comparative Advantage Pattern of Agricultural Products in Iran: An Applied Analysis Using Expressed Comparative Advantage Indicators. Journal of Animal Science Research, 21(3). (In Persian)

35.   Shafiei Rudposhti, M., Bahrami, F., and Karimizadeh Shohani, F. (2019). Presenting a Competitiveness Model in Free Trade Zones. Business Management Explorations, 21, 181-207.

36.   Seyfollahi, N., Mohammadkhani Gheshlaghi, R., Rashedi, Z., and Shirnejad, M. (2021). Designing a model for competitiveness of agricultural exports. In: The Second National Conference on New Management and Start-up Businesses, Shiraz.

37.   Yang, E., and Lee, S. (2015). Competition, taxation, and economic growth. Economic Modelling, 35, 134-139.