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Iran's Export Competitiveness in the Supply Chain of Tomato Paste in the Target Markets

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Abstract

Agricultural and food industry exports are one of the strategies for export development and sustainable economic growth in developing countries. Since Iran has been among the top ten countries in the export of tomatoes and tomato paste in recent years, the purpose of this article was to compare the global market structure of these two products as two links in the tomato supply chain and calculate the revealed comparative advantage of their exports in the world and the target countries. According to the results, the global market structure of both products in the period 2010-2018, despite the high share of the top four market powers, has been an open oligopoly for most of the years, which indicates a small share of the most competitors and high competition between them. However, due to the large share and stability of market leadership, it is unlikely that small countries will be able to capture the share of large countries. Therefore, it is suggested that Iran, with an average share of 1.61 percent in the tomato market and 5.30 percent in the paste market, prioritize a number of markets in which it has more competitiveness for market penetration, market development, and branding. On average, exports of tomatoes and tomato paste to Turkmenistan, Iraq, and Afghanistan have had the greatest comparative advantage for Iran. It is proposed to prioritize competition, market development, and branding in a number of markets in which it has competitiveness and stability based on the revealed comparative advantage index, including Turkmenistan and Afghanistan. It is worth mentioning that due to the higher comparative advantage of tomato paste compared to tomato, its higher added value, more branding, and storage and transportation capabilities, it is recommended, with the development of investment in food processing industries and the completion of supply chain and marketing. Development of the export market of tomato paste should be a priority of the country.

Keywords: Export Target Market, Revealed Symmetric Comparative Advantage, Tomato paste, World Market Structure

Introduction

Foreign trade and export are so important in the economies of countries that its expansion is one of the main goals of economic programs of developing countries. The importance and position of foreign trade in the economic growth and development of countries is such that economists refer to it as the engine of economic development; because trade improves competitiveness, creates employment, and increases foreign exchange earnings in the country (Mehrparvar Hosseini, 2013). One of the main goals of developing countries is to achieve sustainable economic growth and development which the exports expansion can be a direct factor for economic growth. Hence, these countries are always looking to expand their exports to benefit from opportunities, financial resources, earnings, and other advantages (Behzadnia *et al*., 2019). So that in many developing countries such as Iran, the export leap is defined as a development strategy (Rafiee *et al*., 2018). One of the most important features of Iran's

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economy is its strong dependence on oil revenues (Ahmadi and Kiani rad, 2016). The dependence of the economies of Iran and other oil-producer countries on oil revenues and the impression of these revenues from political and economic issues has made the economies of these countries vulnerable. Therefore, any fluctuation in oil prices will lead to a deficit in their balance of payments (Mehrparvar Hosseini, 2013). One of the ways to face this challenge is to develop products that, while improving the domestic economy, increase non-oil exports. Therefore, it is necessary to expand the export of non-oil products and diversify the country's foreign exchange earnings which encouraging non-oil exports, including agricultural goods and conversion industries, can be a good alternative (Ahmadi and Kiani rad, 2016). Export development in the agricultural sector requires the recognition of potential export products and global markets (Palouj, 2018). The export of goods to foreign markets is done with the aim of making continuous profit and income with the satisfaction of consumers. In situations where markets are competitive, in addition to the facilities and capabilities of each country in the production and export of goods, knowledge of export markets and target markets is essential. One of the effective factors in determining the appropriate strategy in the economic development of any country, under the title of export development strategy, is to have a comparative advantage in production and exports. The market structure also represents the organizational characteristics of the market, which can be used to determine the relationship between market components, competition, and the nature of pricing in it (Mahmoudi and Vali Beigi, 2004).

Food processing industries as industries related to agricultural products are among the most important industrial groups that can play an important role in the economic development of countries. The creation and development of these industries can have a special effect on increasing the added value of agricultural products and increase the export value of this sector, which brings more foreign exchange earnings compared to the sale of raw materials (Turkmani and Zoghipour, 2008).

Iranian tomatoes are among the agricultural products that are exported fresh and processed to countries around the world, and increasing its exports is very important in the development of non-oil exports (Modarresi *et al*., 2020). According to the International Trade Center, in 2018, Iran's share in the world tomato export market was 2% and the foreign exchange earnings from the export of this product in the same year was about $ 245,000 and ranked 10th, while Iran's share in the export market of tomato paste was 4.5 percent and the foreign exchange income from it was $ 141,000 and it was in the seventh place. As shown in the maps of Fig. 1 and 2, the situation of Iran's tomato and paste exports in 2018, the target markets of these two products for Iran are different, and although the most important target markets of both products are Iran's neighboring countries, tomato paste is exported to more countries in the five continents of the world, which can be considered as the reason for the longer shelf life of this product and the possibility of exporting to countries in farther geographical distances. Due to the higher price and more foreign exchange earnings of the processed products of this agricultural product, including tomato paste compared to the raw product, completing the supply chain of this product in target market countries as a trading strategy can strengthen the country's export revenues and efficient use of production resources. So that in countries where Iran has a good position in terms of competitiveness in the tomato market, branding and market development of the tomato paste should be on the agenda. For this purpose, it is necessary to study and compare the competitive market structure of these two products and the comparative advantage of Iran in the whole market and each of the target markets of this country.

Therefore, the purpose of this article is to study and compare the exporting market structure and Iran's position in the global tomato and tomato paste market during 2010-2018 and also to evaluate Iran's comparative advantages in the export target markets of these two products in order to better understand the market and formulate more efficient competitive strategies. For this purpose, in the following, some previous researches on market structure and comparative advantages are going to be discussed.

Farajzadeh and Bakhshudeh (2011) studied the pistachio global market structure with emphasis on the strength of the Iran market power that the results showed, the structure of the pistachio market structure is a closed oligopoly. Also, Mehrparvar Hosseini *et al*. (2013) in their research using the indicators of concentration ratio and Herfindahl Hirschman, import and export comparative advantages examined the trade model and market structure of dates in Iran and the world in the period 1992-2011. The results demonstrated the market structure of dates for the world and Iran's target market have become more competitive during this period and contrary to the reduction of Iran's revealed comparative advantage index, still this country has competitive power in the world market. Khodavardizadeh and Mohammadi (2017), in their research, determined the comparative advantage and analyzed the global market structure of medicinal plants in the period 2000-2011, which showed the comparative advantage of Iran's exports was not stable and fluctuated during the studied years. Also, the global export market of medicinal plants during this period follows three types of monopolistic competition, open oligopoly, and close oligopoly. In the study of Ahmadi and Kiani Rad (2016), using the export comparative advantage and Herfindahl-Hirschman indices, Iran's competitive power in exporting tomato paste was investigated, which based on the results obtained during the period 2014-2001, Iran's exports did not have an advantage and had many

fluctuations. Meanwhile, all major exporting countries (China, Italy, United States of America, Spain, Portugal, and Turkey) have had a stable export trend. Other studies in this field include Aminizadeh *et al*. (2014), Ferto and Hubbard (2003), Gajurel and Pradhan (2012), Ishchukova and Smutka (2013), and Mirbagheri *et al*. (2019) who have studied the market structure and competitiveness in the market of various products.

Fig. 1- Map of Iran's tomato export to the world in 2018
Source: International Trade Center

Fig. 2- Map of Iran's tomato paste export to the world in 2018
Source: International Trade Center

The purpose of this study is to investigate and compare the global market structure and Iran's revealed comparative advantages in its target markets of tomato supply chain rings. In this regard, after expressing the research method, the results and suggestions are going to be presented.

Materials and Methods

According to international trade theories, in order to develop exports in any country, proceedings are needed that include identifying comparative advantages, prioritizing advantageous industries, and investing in the development of these activities export (Mahmoudi, And Vali Beigi, 2004). The law of comparative advantage in trade means that if a country can export goods at a lower cost than other countries, it has a comparative advantage in exports compared to other countries, and by entering the world trade market, it can benefit more from the export of goods in which it has a comparative advantage (Mehrparvar Hosseini *et al*, 2013).

The market structure represents the organizational characteristics of the market that can be used to determine the relationship between market components, competition, and the nature of pricing in it (Gajurel and Pradhan, 2012). The most well-known indicators of market structure are the Concentration Ratio Index (CR_n) and the Herfindahl-Hirschman Index (HHI). Therefore, in this research, in order to study the global market structure of tomato paste and tomato, the two mentioned indicators have been used, which are introduced in the following.

1- Concentration ratio (CR_n): The concentration ratio of top n the largest firms in the market, indicates the total ratio of market sales to total market size by these firms. This index can be presented as Equation (1) (Khodaverdizadeh and Mohammadi, 2017):

$$CR_n = \sum_{i=1}^{n} S_i \quad (1)$$

In this equation, n is the number of large countries (usually the top four exporting countries) active in the tomato paste and tomato markets, S_i is the market share of the i^{th} country and CR_n is the concentration ratio of top n large countries.

2- Herfindahl-Hirschman Index (HHI): Herfindahl-Hirschmann Index is calculated from the sum of the quadratic power of the market share of all countries active in the market. This index is obtained from Equation (2) (Gajurel, and Pradhan, 2012).

$$HHI = \sum_{i=1}^{k} S_i^{\ 2} \quad (2)$$

Based on Table (1), this index is between two numbers, zero and one. If this number approaches zero, the product market will move towards competitiveness (less concentration) and if it approaches number one, the market will move towards monopolization (more concentration).

Table 1- Kinds of market structure and its characteristics

The main feature of the market	Herfinahl-Hirschman Index	Concentration ratio	Market structure
There are more than 50 competitors without a significant market share.	$HHI \to 0$	$CR_1 \to 0$	Perfect Competition
None of the competing firms has more than 10% of the market.	$(1/HHI) \to 10$	$CR_1 < 10$	Monopolistic Competition
4 companies have up to 40% of the market.	$6 < (1/HHI) \leq 10$	$CR_4 < 40$	Open Oligopoly
4 companies have at least 60% of the market.	$3 < (1/HHI) \leq 6$	$CR_4 > 60$	Close Oligopoly
More than 50% of the market is owned by one firm.	$1 < (1/HHI) \leq 3$	$CR_1 \geq 50$	Dominant firm
One firm monopolizes the entire market.	$HHI \to 1$	$CR_1 \to 100$	Monopoly

Source: Maddala *et al*. (1995)

Based on the theoretical literature, the revealed comparative advantage index is a measure of export competitiveness (Salami and Pishbahar, 2001), which has been used in many studies as seen in the previous section. This index is obtained from Equation (Amirnejad *et al*., 2015):

$$RCA_{ij} = \frac{\frac{X_{ij}}{\sum_i X_{ij}}}{\frac{\sum_j X_{ij}}{\sum_i \sum_j X_{ij}}} \quad (3)$$

In this equation, X_{ij} is the value of exports of goods i by country j, $\sum_i X_{ij}$ is the total value of exports of the country under study, $\sum_j X_{ij}$ is the value of exports of the goods i in the world and $\sum_i \sum_j X_{ij}$ is the total value of world exports. In other words, the numerator of fraction is the share of export goods i from the total exports of the country under study and the denominator is the deduction of the share of global exports of goods i from the total exports of the world. The value of the RCA_{ij} index in the range of zero to one indicates a lack of advantage and in the range of one to infinity illustrates the existence of comparative advantage and the move towards trade specialization (Mehrparvar Hosseini *et al*., 2013). The growing trend of this index demonstrates the improvement of a country's competitive position in the global market of that product. In addition, large fluctuations in this index over time can be considered a measure of instability in a country's trading system. Changes in comparative advantage may be due to reasons such as changes in the relative cost of producing goods, exchange rates, domestic trade barriers, or

countries that want those goods (Salami and Pishbahar, 2001).

In this article, the revealed comparative advantage for exporting tomatoes and tomato paste to the target countries of Iran is also calculated. Thus, using Equation (3), this time for X_{ij} the value of Iran's exports of goods i to country j, for $\sum_i X_{ij}$ the total value of Iran's exports of goods i, for $\sum_j X_{ij}$ the value of exports of goods i from all over the world to country j, and for $\sum_i \sum_j X_{ij}$ is the total value of exports of goods i in the world.

Considering that in the revealed comparative advantage index for export, the absence of comparative advantage in the range of zero to one and the existence of comparative advantage in the range of one to infinity are defined, to symmetrize this interval, the revealed symmetric comparative advantage index can be used next to this index, which is calculated from Equation (4) (Aminizadeh *et al*., 2014).

$$RSCA_{ij} = \frac{RCA_{ij} - 1}{RCA_{ij} + 1} \quad (4)$$

The range of changes in this index is between negative one and positive one. If the RSCA is between negative one and zero, it represents that there is no comparative advantage, and if it is between zero and positive one, it indicates the relative advantage.

In this study, the data required to calculate the comparative advantage and investigation the market structure has been extracted from the website of the International Trade Center for the years 2010-2018 and Excel 2019 software has been used to compute the indicators.

Result and discussion

The most important export target markets for Iranian tomatoes and tomato paste in the years studied in this article (2010-2018) are Iraq, Russia, United Arab Emirates, Afghanistan, Turkmenistan, Oman, Kazakhstan, Azerbaijan, Armenia, Pakistan, Georgia, Qatar, Kuwait, Turkey and Ukraine, which most of them are neighboring countries of and Central Asia region. For this goal, first, the indicators of the market structure were calculated based on the literature, which the results can be seen in Tables (2) and (3).

Table 2- Tomato market structure & Iran's situation in it in 2010-2018

Year	Leaders of market	CR1	CR4	HHI	1/HHI	Market structure	Iran's share	Iran's level
2010	Netherlands, Mexico, Spain, Turkey	21	59	0.11	8.71	Open Oligopoly	1.80	13
2011	Mexico, Netherlands, Spain, Morocco	23	61	0.13	7.92	Open Oligopoly	1.20	12
2012	Netherlands, Mexico, Spain, Morocco	21	61	0.12	8.19	Open Oligopoly	1.60	13
2013	Netherlands, Mexico, Spain, Morocco	20	60	0.12	8.37	Open Oligopoly	0.90	14
2014	Netherlands, Mexico, Spain, Morocco	21	59	0.11	8.74	Open Oligopoly	1.80	12
2015	Netherlands, Mexico, Spain, Morocco	21	61	0.12	8.32	Open Oligopoly	1.50	13
2016	Mexico, Netherlands, Spain, Morocco	24	62	0.13	7.87	Open Oligopoly	1.50	13
2017	Mexico, Netherlands, Spain, Morocco	21	62	0.12	8.12	Open Oligopoly	1.70	13
2018	Mexico, Netherlands, Spain, Morocco	24	63	0.13	7.91	Open Oligopoly	2.50	10
Average		22	61	0.13	8.23	Open Oligopoly	1.61	12
Minimum		21	59	0.11	7.87	Open Oligopoly	0.90	10
Maximum		24	63	0.13	8.74	Open Oligopoly	2.50	14
Coefficient of variation		0.06	0.02	0.18	0.03		0.575	0.09

Source: Research findings

According to the Herfindahl index, the tomato market structure has been open oligopoly on average in the period of years 2010-2018, however, the share of the top four competitors was more than 60%, which demonstrated a tendency to the closed oligopoly structure, and in fact, it states that the top four countries have a significant market share and other competitors are competing with each other with their small shares (Tables 2, 3). Leading countries in the tomato market for most of the year are the Netherlands, Mexico, Spain, and Morocco, and in the tomato paste market are Italy, China, Spain, and the United States, indicating that

Spain has market power in both chains. Iran's average ranking in the period 2010-2018 in the tomato and paste market was 12 and 6, respectively, and Iran's share was 1.61 and 5.30 percent, which in the tomato market showed more fluctuations compared to tomato paste.

Table 3- Tomato paste market structure & Iran's situation in it in 2010-2018

Year	Leaders of market	CR1	CR4	HHI	1/HHI	Market structure	Iran's share	Iran's level
2010	China, Italy, Spain, USA	27	69	0.16	6.09	Open Oligopoly	3.70	7
2011	China, Italy, USA, Spain	29	70	0.17	5.88	Closed Oligopoly	5.00	6
2012	China, Italy, USA, Spain	29	68	0.16	6.14	Open Oligopoly	6.10	6
2013	China, Italy, USA, Spain	27	69	0.16	6.29	Open Oligopoly	4.90	6
2014	China, Italy, USA, Spain	26	68	0.15	6.65	Open Oligopoly	5.50	6
2015	China, Italy, USA, Spain	26	68	0.15	6.70	Open Oligopoly	5.80	6
2016	Italy, China, USA, Spain	23	65	0.14	7.31	Open Oligopoly	6.40	6
2017	Italy, China, USA, Spain	22	64	0.13	7.54	Open Oligopoly	6.20	6
2018	Italy, China, USA, Spain	23	65	0.14	7.32	Open Oligopoly	4.50	7
Average		26	67	0.15	6.66	Open Oligopoly	5.30	6
Minimum		22	64	0.13	5.88	Closed Oligopoly	3.70	6
Maximum		29	70	0.17	7.54	Open Oligopoly	6.40	7
Coefficient of variation		0.10	0.03	0.09	0.09		0.17	0.07

Source: Research findings

Table 4 shows the results related to the revealed comparative advantage index for tomato and tomato paste export of Iran, which Iran had a comparative advantage in the export of both products in the period 2010 to 2018. But the export of tomato paste has had a much greater comparative advantage for Iran, which illustrates that this processed product has had more competitive compared to fresh Iranian tomatoes in the supply chain.

Table 4- Iran's comparative advantage for export in the global markets of tomatoes and tomato paste in the period 2010-2018

	Tomato		Tomato paste	
Year	Revealed comparative advantages	Revealed symmetric comparative advantages	Revealed comparative advantages	Revealed symmetric comparative advantages
2010	3.98	0.60	7.96	0.77
2011	2.92	0.50	12.27	0.84
2012	3.81	0.58	13.99	0.86
2013	2.74	0.47	13.70	0.86
2014	3.98	0.60	12.18	0.84
2015	3.50	0.56	13.11	0.85
2016	3.50	0.56	14.04	0.86
2017	3.98	0.60	14.62	0.87
2018	6.35	0.73	11.27	0.83
Average	3.87	0.57	12.57	0.84
Minimum	2.74	0.47	7.96	0.77
Maximum	6.35	0.73	14.6	0.87
Coefficient of variation	0.26	0.12	0.16	0.03

Source: Research findings

Tables 5 and 6 show Iran's revealed export advantage for tomato and its paste in the most important target markets of Iran, most of which are neighboring countries. Among the target countries, tomato exports to Turkmenistan had the highest advantage on average, and the growing trend of this index, regardless of its fluctuations, represents an improvement in Iran's competitive position in the market of this country. Iran in Afghanistan's tomato paste market, with an average of 16.89 RCA, has the most competitive power among other competitors in the market of this country. Also, Iraq is in the third place of target markets in terms of comparative advantage, contrary to the high volume of imports of this product from Iran, compared to other target markets of Iran. That is, despite the large volume of tomato paste exports to Iraq, Iran's competitiveness in this market is less compared to its power in Afghanistan and Turkmenistan. A number greater than one for RCA in Afghanistan, Turkmenistan, Iraq, Pakistan, and the United Arab Emirates shows a comparative advantage in exporting tomato paste to these countries.

Table 5- Revealed comparative advantage for exporting tomatoes to Iran's target export countries in 2010-2018

Year	Iraq	Russia	United Arab Emirates	Afghanistan	Turkmenistan	Oman	Kazakhstan	Azerbaijan	Armenia	Pakistan	Georgia	Qatar
2010	27.9	0.2	0.4	43.4	36.6		0.4	15.7	0.3	0.8	0.17	0.1
2011	54.2	0.1	0.1	23.0	74.6		0.6	24.4	4.5	2.0		
2012	42.9	0.1	0.1	36.8	58.7		1.8	17.4	10.2	0.2	0.24	
2013	53.2	0.2	1.7	74.9	91.5	0.2	1.5	31.3	4.5	0.6	0.10	
2014	33.3	0.1	0.8	38.3	52.4	0.1	1.1	40.8	1.8	0.2	0.07	
2015	50.1	0.2	1.4	46.8	64.4	0.4	0.7	48.1	2.8	0.3	0.11	
2016	47.7	0.8	2.9	32.8	62.7	0.7	2.0	14.3	3.9	0.1	0.07	
2017	44.8	1.0	3.1	56.5	58.3	1.7	1.4	6.3	26.3	22.0	0.08	14.6
2018	33.7	1.4	7.0	25.2	38.6	3.4	1.2	29.0	8.2	0.3	0.49	11.0
Average	43.1	0.4	2.0	42.0	59.9	0.7	1.2	25.3	7.0	2.9	0.1	2.9
Maximum	54.2	1.4	7.0	74.9	91.5	3.4	2.0	48.1	26.3	22.0	0.5	14.6
Minimum	27.9	0.1	0.1	23.0	36.6	0.1	0.4	6.3	0.3	0.1	0.1	0.1
Coefficient of variation	0.21	1.1	1.1	0.4	0.3	1.6	0.5	0.5	1.1	2.4	1.0	2.0

Source: Research findings

As mentioned in the previous section, large fluctuations in the RCA index over time can be considered a measure of instability in a country's trading system (Salami and Pishbahar, 2001). Based on the number obtained for the coefficient of variance, the revealed comparative advantage of Iran's exports of tomatoes and tomato paste to Turkmenistan and Afghanistan, respectively, had the least volatility, which indicates stability in these two markets, while being competitive. Therefore, penetration in these two markets can be a priority for Iran, and also this country can develop the market of other products in the tomato supply chain, due to its branding and position in these two markets. It is noteworthy that Iran's competitiveness in the tomato paste market of Turkmenistan has had a decreasing trend, despite the improvement of the competitive situation in the tomato market of this country, which necessitates attention to progress the marketing activities of tomato paste with emphasis on the Iranian tomato brand.

Table 6- Revealed comparative advantage for exporting tomato paste to Iran's target export countries in 2010-2018

Year	Iraq	Afghanistan	Russia	Pakistan	Kuwait	Kazakhstan	Qatar	Turkey	United Arab Emirates	Turkmenistan	Azerbaijan	Ukraine
2010	12.61	22.51	0.61	6.74	0.45	0.33	0.75	0.01	1.67	22.70	0.04	0.17
2011	10.94	16.98	0.82	5.06	0.23	0.14	0.01		0.16	16.28	0.01	0.09
2012	9.33	14.45	1.09	0.59	0.28	0.09	0.27	0.03	0.23	13.05	0.01	
2013	9.92	18.05	0.89	1.62	0.39	0.25	0.04	0.05	0.40	11.47	0.01	0.03
2014	7.89	15.48	1.28	1.69	0.22	0.90	0.10	0.17	3.87	8.19	0.06	
2015	9.44	16.00	0.72	1.79	0.83	0.60	0.06	0.10	1.90	4.44	0.05	0.16
2016	8.40	14.38	0.72	2.12	1.12	1.56	0.03		1.85	5.95	0.01	0.10
2017	8.42	14.89	0.63	3.13	1.10	0.58	0.51	0.75	1.40	14.26	0.02	0.95
2018	7.40	19.29	0.45	3.26	0.89	0.36	1.02	0.51	0.09	9.96	0.02	0.48
Average	9.37	16.89	0.80	2.89	0.61	0.54	0.31	0.18	1.28	11.81	0.03	0.22
Maximum	12.61	22.51	1.28	6.74	1.12	1.56	1.02	0.75	3.87	22.70	0.06	0.95
Minimum	7.40	14.38	0.45	0.59	0.22	0.09	0.01	0.01	0.09	4.44	0.01	0.03
Coefficient of variation	0.17	0.16	0.32	0.67	0.61	0.86	1.19	1.48	0.96	0.47	0.70	1.41

Source: Research findings

selection of target markets, Iran's export advantages in its important target markets for both products were examined and the results demonstrated, the export of Iranian tomatoes and tomato paste to Turkmenistan and Afghanistan, respectively, have had the highest advantage and the lowest fluctuation in the export advantage index, which indicates competitiveness and stability in these two markets. Therefore, penetration in the markets of these two countries can be a priority for Iran and according to the branding and the position of the country in these two markets, the market of other related products in the Iranian tomato supply chain can also be developed in them. Due to the declining trend of Iran's competitiveness in the tomato paste market of Turkmenistan, contrary to the improvement of the competitive situation in the tomato market of this country, it is recommended to pay attention to the improvement of marketing activities of tomato paste with emphasis on the Iranian tomato brand. Also, due to the higher comparative advantage of tomato paste compared to tomatoes, its higher added value, the possibility of more branding and capability of storage

Conclusion

Considering the role of non-oil exports, agriculture and food processing industries in the country's foreign exchange earnings, the objectives of this study were to compare the global market structure of tomato and tomato paste as two links in the tomato supply chain and to calculate the revealed comparative advantage of the export of these two products in the world and the target countries of Iran. Based on the results, the open oligopoly structure of tomato and tomato paste global markets in the most years of the period 2010-2018, despite the high share of the top four market powers, illustrates a slight share of more competitors and more competition between them. But given the large share and stability of market leadership, it is unlikely that small competitors will be able to capture large countries of markets. Therefore, it is suggested that Iran, with an average share of 1.61 percent in the tomato market and 5.30 percent in the paste market, prioritize a number of markets in which it has more competitiveness for market penetration, market development and branding. In this article, in order to create a clear picture for the

priority to use the country's domestic production resources such as water and energy and subsidies allocated to it in an efficient system by producing the most added value and foreign exchange revenue.

and transportation, it is suggested, with the development of investment in food processing industries and the completion of supply chain and marketing, development of the export market of tomato paste should be given

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رقابت‌پذیری صادراتی ایران در زنجیرهٔ عرضهٔ رب گوجه‌فرنگی در بازارهای هدف

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چکیده

صادرات محصولات کشاورزی و صنایع تبدیلی از راهبردهای توسعه صادرات و رشد پایدار اقتصادی در کشورهای در حال توسعه به شمار می‌رود. از آنجا که ایران در صادرات گوجه‌فرنگی و رب گوجه در سال‌های اخیر در بین ده کشور برتر جهان جای داشته است، هدف این مطالعه مقایسه ساختار بازار جهانی این دو محصول به عنوان دو حلقه از زنجیره عرضه گوجه‌فرنگی و محاسبه مزیت نسبی آشکار شده صادرات آنها در جهان و کشورهای هدف ایران تعیین شد. براساس نتایج، ساختار بازار جهانی هر دو محصول در دوره ۲۰۱۸-۲۰۱۰ با وجود سهم بالای چهار قدرت برتر بازار، در بیشتر سال‌ها انحصار چندجانبه باز بوده است که بیانگر سهم اندک بیشتر رقبا و رقابت زیاد بین آنها است. اما با توجه به سهم زیاد و ثبات رهبری بازار، امکان گرفتن سهم کشورهای بزرگ برای رقبای کوچک، اندک است. از این رو، پیشنهاد می‌شود، ایران با متوسط سهم ۱/۶۱ درصدی در بازار گوجه و ۵/۳۰ درصد در بازار رب، تعدادی از بازارها را که در آنها از قدرت رقابت‌پذیری بیشتری برخوردار است، برای نفوذ، توسعه بازار و برندسازی در اولویت قرار دهد. به طور میانگین صادرات گوجه‌فرنگی به کشورهای ترکمنستان، عراق و افغانستان برای ایران بیشترین مزیت نسبی را داشته و همچنین صادرات رب گوجه‌فرنگی نیز به کشورهای ذکر شده دارای بیشترین مزیت نسبی برای ایران بوده است که پیشنهاد می‌شود، تعدادی از بازارها را که در آنها براساس شاخص مزیت نسبی آشکار شده از قدرت رقابت‌پذیری و پایداری برخوردار است، از جمله بازارهای ترکمنستان و افغانستان را در اولویت نفوذ، توسعه بازار و برندسازی قرار دهد. شایان ذکر است، با توجه به مزیت نسبی بالاتر رب گوجه در مقایسه با گوجه‌فرنگی، ارزش افزوده بالاتر آن، امکان برندسازی بیشتر و قابلیت نگهداری و حمل و نقل، توصیه می‌شود، با توسعهٔ سرمایه‌گذاری در صنایع تبدیلی و تکمیل زنجیرهٔ عرضه و بازاریابی، توسعه بازار صادراتی رب گوجه‌فرنگی در اولویت کشور قرار گیرد.

واژه‌های کلیدی: بازار هدف صادراتی، رب گوجه‌فرنگی، ساختار بازار جهانی، مزیت نسبی متقارن آشکارشده

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