Economic Potentials for the Development of Egyptian Exports of Food Industries

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Extract:

Agricultural and food exports are one of the main components of the commodity structure of total Egyptian exports. These exports include both fresh and processed agricultural commodities. Increasing the contribution of food industry exports to agricultural and food exports is one of the goals that Egypt seeks to achieve because of its high added value and higher export return. The food industry sector is also considered one of the most important main manufacturing sectors in developing and advanced countries in general and in Egypt in particular, as this sector contributes to advancing economic growth and achieving food security, in addition to its contribution to solving the problem of unemployment and improving the trade balance by increasing the exports of agricultural sector.

key words: Food Industry- vegetables and fruits-exports-juice.

Introduction:

Agricultural and food exports are one of the main components of the commodity structure of total Egyptian exports. These exports include both fresh and processed agricultural commodities. Increasing the contribution of food industry exports to agricultural and food exports is one of the goals that Egypt seeks to achieve because of its high added value and higher export return. The food industry sector is also considered one of the most important main manufacturing sectors in developing and advanced countries in general and in Egypt in particular, as this sector contributes to advancing economic growth and achieving food security, in addition to its contribution to solving the problem of unemployment and improving the trade balance by increasing the exports of agricultural sector.

Foreign trade contributes to supporting the food industries sector in Egypt, as exports contribute to increasing production capacities and returns and improving the level of production, while imports contribute to importing modern production requirements and transferring and settling production technology, which ultimately contributes to increasing the national economy in terms of reducing unemployment. And rotate the wheel of production, and increase the return on export.

The Egyptian agricultural sector - after Egypt signed many international agreements, GATT and European Partnership Agreement - is no longer the traditional

sector that produces the raw material needed for industry and a source of employment , and income. Rather it has become dependent on the comparative and competitive advantages of the ability to confront the existing economic blocs in order to develop Egyptian exports and then increase the state's proceeds of foreign currencies needed to finance economic development projects

Research problem: The research problem is that although Egypt enjoys a distinct productive position in the production of food crops, the Egyptian exports of food industries are still insignificant. Which suggests that the exporting reality of the food industries faces many difficulties and obstacles, which leads to weak competitiveness in the global markets.

Objectives : The research aims to identify the possibilities of increasing Egyptian exports from the food industries, through studying the balance trade of the food industries, as well as studying the most important imported markets for them in the various global markets and the factors affecting those markets, in addition to studying the commodity and geographical distribution of Egyptian exports from industries In addition to predicting the future of Egyptian exports of food industries and the possibilities for their development.

Data sources and research method: The research relied mainly on published and unpublished secondary data issued by the Central Agency for Public Mobilization and Statistics, the Ministry of Agriculture and Land Reclamation, the Ministry of Trade and Industry, and the Food and Agriculture Organization. To achieve the objective of the research, descriptive and analytical methods were used, as it relied on the regression methods and the ARIMA method and Jenkins model to predict the values of the studied economic variables or phenomena.

Search results
The trade balance of the Egyptian food industries: The balance of trade is one of the most important indicators of the country's ability to produce the commodities under study, and it is estimated as the difference between exports and imports for any commodity. Table (1) shows that Egyptian exports of food industries are estimated at about 220 million dollars on average for the period (2001-2010), compared to about 741 million dollars on average for the period (2011-2020), with an increase of about 237% and an average year It amounted to about 480 million dollars during the study period (2001-2020), and this may be due to the repercussions of the Egyptian decisions to devalue the local currency and its role in increasing exports, as well as efforts to promote Egyptian exports in global markets during the period (2016-2020) through commercial representation offices. At the same time, Egyptian imports of food industries increased from about 838 million dollars on average for the period (2001-2010) to about 1969 million dollars on average for the period (2011-2020), with an increase rate estimated at about 135% and an average of about 1403 million dollars for the study period. . It was also found that the trade balance of the Egyptian food industries has doubled from about (-618) million dollars as an average for the period (2001-2010), to about (-1228) million dollars as an average for the period (2011-2020), with an average of about (-923) million dollars during the study period (2001-2020).

Table (1) The balance of trade of the Egyptian food industries in million dollars for the period 2001-2020

Years	Food industry exports of agricultural commodities in the form of finished or semi-manufactured goods	Food industry imports of agricultural commodities in the form of finished or semi-manufactured goods	The trade balance for the food industries of agricultural commodities in the form of finished or semi-manufactured goods (x1)
Average period 2001-2010	220	838	-618
Average period 2011-2015	697	2154	-1457
Average period 2016-2020	785	1784	-999
Average period 2011-2020	741	1969	-1228
The overall average for the study period	480	1403	-923

(*) Food industries of agricultural commodities include manufactured goods based on plant products such as vegetables, fruits, field crops, medicinal and aromatic plants, according to the International Standard Industrial Classification (ISIC) used in classifying manufactured goods, as they have been converted and customs items determined for them according to the Harmonized System for Classification of Goods (HS) used to extract foreign trade data.

Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

By studying the general time trend of the value of food industry exports during the period (2001-2020), it was found from equation (1) in Table (2) that there was a statistically significant increase with an annual growth rate of about 16%, and the value of the coefficient of determination was about 0.91, i.e. That 91% of the changes in the value of food industry exports during that period are due to the factors that reflected in the time variable. It was also shown that the Egyptian imports of food industries increased with a statistically significant growth rate estimated at about 6%, and the value of the coefficient of determination reached about 0.50 (Equation 2). At the same time, the significant change in the trade balance of the food industries was not proven, indicating its relative stability during the study period.

Table (2): Equations of the time trend of some variables related to the foreign trade of the Egyptian food industries for the period (2001-2020)

equation number	variable	general time trend equation	Average	The coefficient of determination (R2)	The calculated t) value)	The calculated (f) value	growth rate %
1	Food Industry Exports	$\ln\hat{Y}= 4.1 + 0.16\ xi$	153	0.91	(9.3)**	(87.4)**	16[**]
2	Food industry imports	$\ln\hat{Y}=6.4+0.064\ xi$	1403	0.50	(4.4)**	(19.4)**	1[**]
3	Trade balance for the food industry	$\hat{Y}=-633.4–27.6\ xi$	923-	0.33	(-1.52)-	(2.31)-	3[*]
4	Contribution of food industry exports to agricultural and food exports	$\ln\hat{Y}=2.4+0.02\ xi$	15.7	0.97	(17.8)**	(318)**	2[**]

(*) growth rate = (regression coefficient/ average)*100

* Significant at (0.05)   ** Significant at (0.01)

Source: compiled and calculated from tables (1,3)

Contribution of food industry exports to agricultural and food exports: Agricultural and food exports are one of the main components of the commodity structure of total Egyptian exports, and these exports include both fresh and processed agricultural commodities. Increasing the contribution of food industry exports to agricultural and food exports is one of the goals that the state seeks to achieve because of its high added value and higher export return, contributing to youth employment and reducing the unemployment problem. Table (3) indicates that the contribution of food industry exports to agricultural exports is estimated at about 12.4% as an average for the period (2001-2010), while it is estimated at about 15% as an average for the period (2011-2020), and with a general average estimated at about 14.3% for the study period. The increase in the food industry's contribution to total agricultural exports may be due to the decrease in the contribution of other agricultural and food exports, and at the same time a relative increase in the value of Egyptian food industries exports during this period.

Table No. (3) The contribution of food industry exports to merchandise and agricultural exports, valued in million dollars during the period (2001-2020)

Years	total exports	merchandise exports	total agricultural exports (1)	Food Industry Exports (2)	Fresh Agricultural Exports (3)	Contribution of food industry exports to merchandise exports (%)	Contribution of food industry exports to total agricultural exports (%)
Average period 2001-2010	13965	8695	1776	219.5	1556.1	2.2	12.4
Average period 2011-2015	27688	21458	4852	697	4156	3	14
Average period 2016-2020	27268	18987	5042	785	4258	4	16
Average period 2011-2020	27478	20222	4947	740.6	4206.6	3.7	15
The overall average for the study period	20722	14459	3362	480.1	2881.4	2.9	14.3

1: **Fresh agricultural commodities and processed agricultural commodities, 2: Finished or semi-finished agricultural commodities, 3: They include vegetables, fruits, ornamental, medicinal, aromatic and other unpreserved or unprocessed plant parts.**
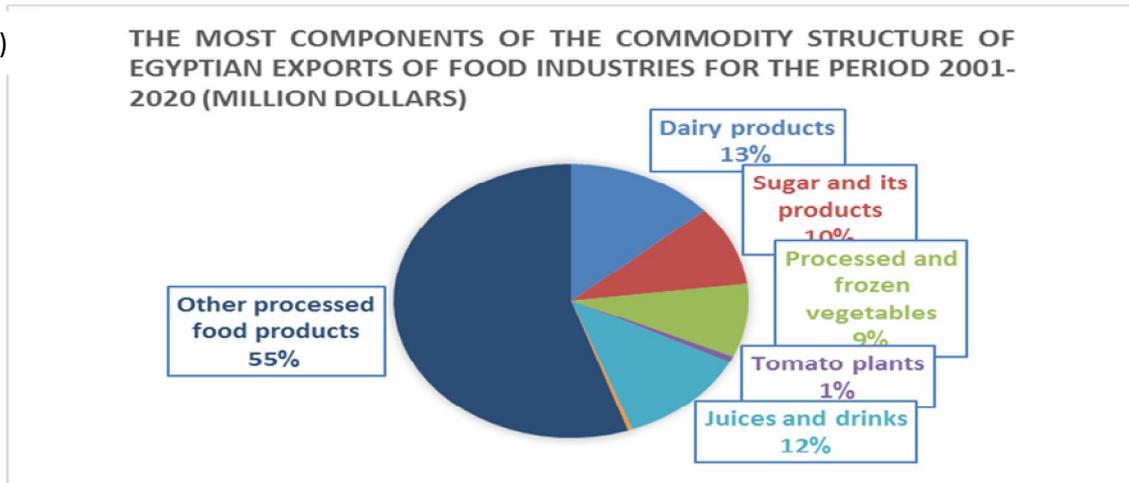
Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

By studying the general time trend of the contribution of food industry exports to agricultural and food exports during the period (2001-2020), equation (4) in Table (2) shows that there is a statistically significant increase, with an annual growth rate of about 2%, and the value of the coefficient of determination has reached about 0.97

Commodity distribution of the exports of the Egyptian food industries: The commodity structure of the Egyptian exports of the food industries is characterized by a great diversity between finished and semi-manufactured commodities. Exporting by increasing the local component and the degree of

industrialization of the manufactured food commodity that is being exported. Figure (1) indicates that the most important components of the commodity structure of the Egyptian exports of the food industry are dairy products, sugar and its products, vegetables, frozen and processed, tomato factories, juices and syrups, and jam. It also shows that for manufactured goods of horticultural crops, they collectively represent about 22% of the total food industry exports, and juices and syrups came in the first place with 12%, while frozen vegetables came in second place with 9%, and tomato factories came in the third and fourth places and jam with relatively limited contribution rates of about 1% and about 0.4% for each, respectively.

Figure (1)

THE MOST COMPONENTS OF THE COMMODITY STRUCTURE OF EGYPTIAN EXPORTS OF FOOD INDUSTRIES FOR THE PERIOD 2001-2020 (MILLION DOLLARS)

Dairy products 13%
Sugar and its products 10%
Processed and frozen vegetables 9%
Tomato plants 1%
Juices and drinks 12%
Other processed food products 55%

Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

Geographical distribution of Egyptian food industry exports: The geographical diversity of exports and the increase in the number of markets is one of the most important objectives of export plans, as this diversity contributes to reducing export risks and increasing opportunities for developing exports of the commodity to global markets.

Figure (2) data indicate that the most important receiving groups of Egyptian food industry exports as an average for the period (2016-2020) are represented in the Arab countries group in the first rank with a contribution rate of About 50%, then the European Union group with a contribution of about 14%, and the African group (without the Arab countries) came in third place with a share of about 12%. The high proportion of the Arab countries bloc's contribution to receiving Egyptian food industry exports may be due to many reasons, the most important of which is the existence of the Arab Free Trade Agreement, which allows Egyptian exports of food industries and other commodities to enter Arab markets without customs tariffs, in addition to the existence of regular land and sea transport lines at affordable prices. Good competitiveness, as well as the convergence of consumer tastes in the Arab countries with the nature of Egyptian manufactured food commodities. The European markets are also considered one of the important markets for the Egyptian food industries, due to many reasons, the most important of which is the high export price of Egyptian manufactured food commodities to European markets compared to other global markets. However, it is noted that most of Egypt's exports of food industries to European markets are represented in commodities Semi-finished and not finished goods. The African countries are also considered one of the most promising markets
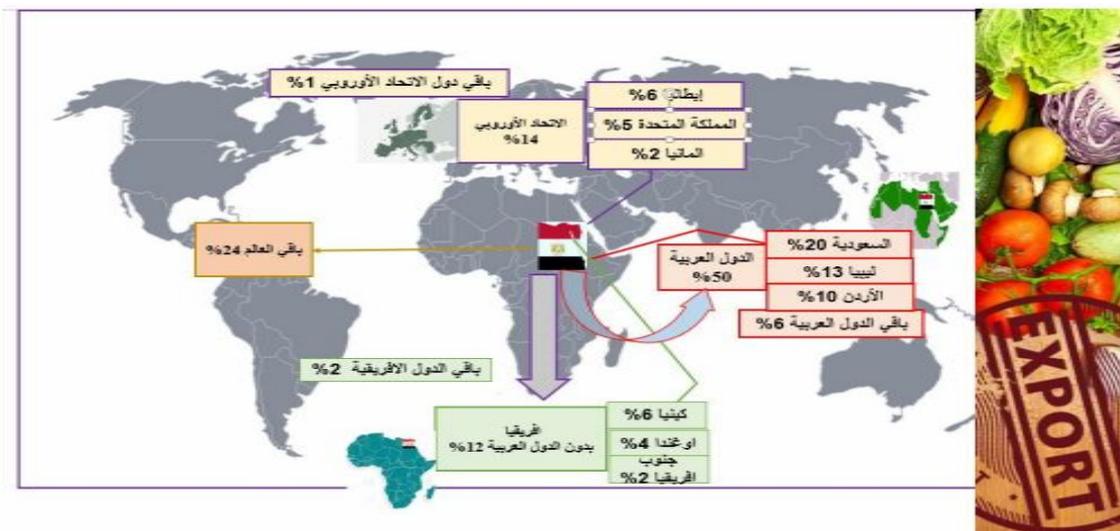
in which the demand for food industries is increasing, as the African market is characterized by a high number of consumers and a diversity of tastes, which increases the opportunities for Egyptian exports of food industries, especially in light of the developments that African trade with Egypt is going through, the most important of which is the entry into the trade agreement The African Free Trade Union came into force, which is expected to contribute to increasing the penetration of Egyptian exports of food industries in the coming years table (4).

Table No. (4) the most important markets for Egyptian exports of food industries at the level of economic blocs and countries within each bloc during the average period 2016-2020 (value in million dollars)

Groups	export value	Contribution of the conglomerate to the total (%)	The most important countries within the group	The value of the country's exports	State contribution to the total (%)
Arab countries	240.05	50	Saudi Arabia	96.5	20
			Libya	63.4	13
			Jordan	49.5	10
			The rest of the Arab countries	30.7	6
European Union	67.214	14	Italy	28.8	6
			United kingdom	24.0	5
			Germany	9.6	2
			Rest of Europe	4.8	1
African countries (without Arab countries)	57.612	12	Kenya	28.8	6
			Uganda	19.2	4
			South Africa	9.6	2
			rest of african countries	9.6	2
Rest of the world	115.2	24	105.5		22
Total	408	100	100		100

Source: Compiled and calculated: International Trade Database: https://www.trademap.org

Figure (2) Percentage of the contribution of the most important markets to the value of food industry exports at the level of economic groups and countries within each group during the average period 2016-2020

Source: table (4)

Geographical distribution of Egyptian food industry exports at the level of countries: Egyptian exports of food industries are subject to strict control procedures to ensure their quality in international ports, and countries differ among themselves in the nature of tests related to ensuring the quality of Egyptian exports of food industries. The data in Table (5) indicate that Saudi Arabia is one of the most important markets receiving Egyptian exports at the level of countries as an average for the period (2016-2020) with an estimated rate of 20%, then Libya in the second place with an estimated rate of 13%, and then Jordan in the third place with a rate of 10 %, which are all markets located within the Arab region. Italy and the United Kingdom are among the most important European countries importing the Egyptian food industries, with an estimated rate of 6% and 5% each, respectively. While the markets of Kenya and Uganda are among the most important African countries with 6% and 4% each, respectively.

The results of the geographical distribution of food industries at the level of countries indicate that the most important countries receiving Egyptian exports from them are the countries that are close to the distance with Egypt. Especially with the increasing global demand for these products and the presence of promising markets for them, such as African markets, Southeast Asian countries and China, and then the importance of shedding light on the competitive situation of Egyptian exports of food industries in these markets.

Table (5) General features of the competitive capabilities of the Egyptian exports from juices and drinks in the most important global markets as an average for the period (2016-2020)

market	Market share to Egyptian exports (%)	The growth rate in the amount of market imports from the world	Growth rate in the amount of Egyptian exports %	The price of exporting Egypt to the market dollars per ton	The Egyptian market share in the market %	Market penetration rate of Egypt's exports to the market	Egypt's ranking among the most important exporting countries in the market	Country	The export price of the competing country	Price ratio with Egypt
Libya	13.2	11	44	431.7	33	2.2	2	Italy	512	1.2
America	7.7	10.2	157	359.6	1	5.3	24	Spain	642	1.8
Saudi Arabia	10.2	1.2	51	415.5	12.4	2.1	3	Italy	521	1.3

Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

Competitiveness of Egyptian exports of food industries in the most important global markets: The competitive capabilities of Egyptian exports vary according to the exported commodity and the nature of the receiving markets, and it is not possible to judge the competitive capabilities of the food industries in general as an export sector with great accuracy, as each commodity has its nature and each market has conditions that differ from other markets Which makes the competitive capabilities of Egyptian exports of food industries affected by many different factors that differ from one market to another and from one commodity to another. studying .

Competitive capabilities of Egyptian exports of juices and syrups: Juices and syrups are among the manufactured food commodities that are in increasing demand globally. The exports of this commodity vary between direct consumption

and its use as a production requirement. Table (5) shows that the most important global markets receiving Egyptian exports of juices and syrups, as an average for the period (2016-2020), are Libya, America and Saudi Arabia, where these countries collectively contributed about 31% of the amount of Egyptian exports to global markets.

The Libyan market accounts for about 13.2% of the Egyptian exports of juices and syrups, with a growth rate of about 11% of the global market and about 44% of Egypt, with a market share for Egypt of about 33% of Libya's imports from the world, and the market penetration rate was 2.2, and it was the most important The competing countries for Egypt are Italy, where the price ratio with Egypt is about 1.2, which indicates that Egypt has an advantage in price competition in Libyan market. While the American market accounted for about 7.7% of the Egyptian exports of juices and syrups, with a growth rate of about 10.2% from the global market and about 157% from Egypt, with a market share for Egypt that amounted to about 1% of America's imports from the world, and the market penetration rate was 5.3, and it was the most important The competing countries for Egypt are Spain, where the price ratio with Egypt is about 1.8, which indicates that Egypt has an advantage in price competition in the American market, and the increasing demand for Egyptian juices, and then the importance of working on the development of Egyptian exports of juices to the American market. As for the Saudi market, it accounted for about 10.2% of the Egyptian juices and syrup exports, with a growth rate of about 1.2% from the global market and about 51% from Egypt, with a market share for Egypt of about 12.4% of Saudi imports from the world, and the market penetration rate was 2.1, and it was the most important The competing countries for Egypt are Italy, where the price ratio with Egypt is about 1.3, which indicates that Egypt has an advantage in price competition in Saudi Arabia.

From the above, it is clear that Egyptian juices and syrups enjoy high competitive capabilities in the most important global markets, which indicates the existence of future opportunities to increase their exports to global markets.

Competitive capabilities of Egyptian exports of frozen and processed vegetables: The vegetables processing for export vary between frozen vegetables and vegetables preserved by different means. As a result of this great diversity in processed vegetables and their methods of processing, the demand for them in global markets is characterized by increasing growth. Table (6) indicates that the most important global markets receiving Egyptian exports of juices and syrups for the period (2016-2020), are America, Saudi Arabia and the UAE, where these countries collectively contributed about 41% of the amount of Egyptian exports to global markets. The American market is considered one of the most important importing markets for Egyptian frozen and processed vegetables, as it amoumred by about 16.8% of them, with a growth rate of about 9.8% of the global market and about (-74%) from Egypt, with a market share of about 2.3% of America's imports from the world. The market penetration rate is 0.5, and the most important competitor to Egypt was Brazil, where the price ratio with Egypt was about 0.9, which indicates that Egypt does not have an advantage in price competition in the American market. As

for the Saudi market, it captured about 16.1% of the Egyptian exports of frozen and processed vegetables, with a growth rate of about 5.4% of the global market and about (-76%) from Egypt, with a market share for Egypt of about 6.7% of Saudi imports from the world, and a penetration rate of The market is 0.9, and the most important competing country for Egypt is Morocco, where the price ratio with Egypt is about 0.9, which indicates that Egypt does not have an advantage in price competition in Saudi Arabia. As for the UAE market, it captured about 8.5% of the Egyptian exports of frozen and processed vegetables, with a growth rate of about 6.2% of the global market and about (-58%) from Egypt, with a market share for Egypt of about 6.7% of the UAE imports from the world, and the rate of The market penetration was 0.8, and the most important competitor to Egypt was Italy, where the price ratio with Egypt was about 0.9, which indicates that Egypt does not have an advantage in price competition in the UAE.

Table No. (6) General features of the competitive capabilities of Egyptian exports of frozen and processed vegetables in the most important global markets as an average for the period (2016-2020)

markets	Market contribution to Egyptian exports (%)	The growth rates of the amount of market imports from the world	Growth rates in the amount of Egyptian exports %	The price of exporting Egypt to the market (dollars per ton)	Egyptian market share within the market %	Market penetration rate of Egypt's exports to the market	Egypt's ranking among the most important exporting countries in the market	Countries	The export price of the competing country	Price ratio with Egypt
America	16.8	9.8	-74	1000	2.3	0.5	22	Brazil	920	0.92
Saudi Arabia	16.1	5.4	-76	944	6.7	0.9	11	Morocco	850	90. 0
UAE	8.5	6.2	-58	894	4.2	0.8	14	Italy	830	0.93

Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

The results of the general features of the competitive capabilities of the Egyptian exports of frozen vegetables manufactured in the most important global markets indicate that Egypt does not enjoy high competitive advantages in the most important markets. To raise these burdens by increasing the allocations for export support and export support and to provide the necessary financing to complete manufacturing operations for export at low interest.

Competitive capabilities of Egyptian exports of tomato factories: Most of the Egyptian tomato varieties are characterized by many characteristics that make them suitable for assembly operations, as the percentage of extraction and clarification increases in the manufactured product of the Egyptian varieties compared to the varieties in the competing countries. Table (7) shows that the most important global markets receiving Egyptian exports of tomato factories, as an average for the period (2016-2020), are Italy, Jordan and Kenya, where these countries collectively contributed about 38.1% of the amount of Egyptian exports to global markets. The Italian market is considered one of the most important importing markets for Egyptian tomato factories, with an estimated rate of 14.8%, and a growth rate of about 21% of the global market and about (-67%) from Egypt, with a market

share of about 8.1% of Italy's imports from the world, and a penetration rate of The market is 0.8, and the most important competitive country for Egypt is Tunisia, where the price ratio with Egypt is about 0.87, which indicates that Egypt does not have an advantage in price competition in Italy. As for the Jordanian market, it acquired about 11.6% of the Egyptian exports of tomato factories, with a growth rate of about 9% of the global market and about (-64%) from Egypt, with a market share for Egypt of about 14.2% of Jordan's imports from the world, and a penetration rate of The market is 0.7, and the most important competitive country for Egypt is Morocco, where the price ratio with Egypt is about 0.8, which indicates that Egypt does not have an advantage in price competition in Jordan.

As for the Kenyan market, it accounted for about 11.7% of the Egyptian exports of tomato factories, with a growth rate of about 24% of the global market and about (-54%) from Egypt, with a market share for Egypt of about 11.1% of Kenya's imports from the world, and the market penetration rate reached 0.5, and the most important competing country for Egypt was Morocco, where the price ratio with Egypt was about 0.6, which indicates that Egypt does not have an advantage in price competition in Libya.

The results of the general features of the competitive capabilities of Egyptian exports of tomato factories in the most important global markets indicate that despite the low competitiveness of the tomato factories in these markets, the growth rate of tomato factories in them makes these markets promising markets, which indicates the importance of the Egyptian side's interest in working on challenges Which faces the exports of tomato factories to these markets, especially the Italian and Kenyan markets, especially with regard to the high export costs as a result of the high costs of inspection and quality certificates, as well as the high shipping costs and the irregular shipping lines of Kenyan market.

Table No. (7) The general features of the competitive capabilities of the Egyptian exports of tomato factories in the most important global markets as an average for the period (2016-2020)

markets	Market contribution to Egyptian exports (%)	The growth rate in the amount of market imports from the world	Growth rate in the amount of Egyptian exports %	The price of exporting Egypt to the market dollars per ton	Egyptian market share within the market %	Market penetration rate of Egypt's exports to the market	Egypt's ranking among the most important exporting countries in the market	Countries	The export price of the competing country	Price ratio with Egypt
Italy	14.8	21	-67	127	8.1	0.8	22	Tunisia	110	0.87
Jordan	11.6	9	-64	166	14.2	0.7	6	Morocco	144	0.87
Kenya	11.7	24	-54	333	11.1	0.5	9	Morocco	212	0.64

Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

Competitive capabilities of Egyptian jam exports: The types of Egyptian jam exports vary according to the raw material, the concentration of sugar and the total solids, as well as the degree of fineness or roughness of the manufactured product. The quality and sizes of the packages designated for the manufacture of jam

also differ. As a result of these differences, the specifications necessary for the export of jam are considered among the specifications. Flexible and subject to analysis of samples from the control authorities on the exported product according to a set of accurate laboratory tests. The general features of the competitive capabilities of Egyptian jam exports in the most important global markets in Table (8) indicate that the most important global markets receiving Egyptian jam exports as an average for the period (2016-2020) are represented in the UAE, America and Kuwait, where these countries collectively contributed about 40.5% From the amount of Egyptian exports to world markets. The UAE market accounts for about 24% of the Egyptian exports of jam, with a growth rate of about 23% from the global market and about (-69%) from Egypt, with a market share for Egypt of about 9.2% of the UAE's imports from the world, and the market penetration rate was 1.1. The most important competing country for Egypt is Spain, where the price ratio with Egypt is about 1.1, which indicates the presence of strong competition for Egypt in the UAE market. While the American market accounts for about 9.3% of the Egyptian exports of jam, with a growth rate of about 11% of the global market and about 44% of Egypt, with a market share for Egypt of about 1.2% of America's imports from the world, and the market penetration rate was 0.8, and the most important countries were The competition for Egypt is Brazil, where the price ratio with Egypt is about 0.8, which indicates that Egypt does not have an advantage in price competition in America. As for the Kuwaiti market, it acquired about 7.2% of the Egyptian exports of jam, with a growth rate of about 7.2% from the global market and about 9.5% from Egypt, with a market share for Egypt of about 2.3% of Kuwait's imports from the world, and the market penetration rate was 14.2. The most important competing country for Egypt is Turkey, where the price ratio with Egypt is about 1.2, which indicates that Egypt has an advantage in price competition in Kuwait.

Table (8) :General features of the competitive capabilities of Egyptian jam exports in the most important global markets as an average for the period (2016-2020)

market	Market contribution to Egyptian exports (%)	The growth rate in the amount of market imports from the world	Growth rate in the amount of Egyptian exports %	The price of exporting Egypt to the market dollars per ton	Egyptian market share within the market %	Market penetration rate of Egypt's exports to the market	Egypt's ranking among the most important exporting countries in the market	Country	The export price of the competing country	Price ratio with Egypt
UAE	24	23	-69	154	9.2	1.1	5	Spain	166	1.1
America	9.3	-11	-64	200	1.2	0.8	24	Brazil	155	0.8
Kuwait	7.2	9.5	-43	500	14.2	2.3	6	Turkey	610	1.2

Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

The results of the general features of the competitive capabilities of Egyptian jam exports in the most important global markets indicate that Egypt has high competitive capabilities in the UAE and Kuwaiti markets, especially in light of the high export revenue of jam in Kuwait, and its lack of competitive capabilities in the American market, which indicates the importance of working on diversifying export markets. And opening new markets, especially in African markets.

Future prospects for Egyptian exports of food industries: Forecasting and economic planning for the future are closely intertwined, and it is not possible in any way to achieve economic development in the future without scientific forecasting of economic and social variables and other variables surrounding the process of economic development, whether at the level of the overall economy of the state or at the level of sectors different economics. The prediction was made using the ARIMA Box and Jenkins model, which is known as the integrated autoregressive model and the moving average as one of the standard models that are accurate in forecasting because it is a dynamic model that takes into account the study of model variables with each other, which contributes to a more accurate, realistic and capable analysis. Better explanatory agreement with available empirical observations and greater confidence in the prediction results obtained.

Determinants of the external demand for the products of the Egyptian food industries in the most important importing markets: The main objective of the study of demand is to identify the most important determinants of the consumption of Egyptian exports in global markets, and this requires determining the determinants of external demand for Egyptian exports in each of those markets, and then standing On the reasons for the expansion or contraction of those exports, as well as knowing the extent of competition faced by these products in their import markets, in addition to identifying the most important external factors that would facilitate or impede the flow of these goods to foreign markets.By studying the relationship between the exported quantities of food industries products in the most important importing markets as a dependent variable, their export price and the export prices of competing countries, the significance of these relations did not prove due to the small amount of exported Egyptian products. The imported markets have it as a dependent variable (Y) and the independent variables that are believed to have a significant effect on the *dependent variable, which are the average price per kilogram of Egyptian product exports in the imported* market, the average kilogram price of the competing country's exports of the product to the same market, and the average per capita share in the imported market for the Egyptian product of GDP during the period (2001-2020).

For Egyptian juices and beverages exports, equation (1) in Table (9) indicates the existence of an inverse relationship between the average per capita share of Egyptian juices and beverages exports in the US market in kg (Y1) and the average export price of a kg of Egyptian juices and beverages to the US market in dollars (X1), As the increase in the export price of Egyptian juices and drinks in the US market by 1% decreases the average per capita share in the US market of Egyptian juices and drinks by 1.5% during the study period, This means that the individual demand for Egyptian juices and beverages in the American market is relatively elastic. Also, there is a direct relationship between the average per capita share of Egyptian juices and beverages exports in the American market and the average price of Spain's export of juices and beverages to the American market in dollars (X2) and the average per capita share of Egyptian juices and drinks in the US market in dollars (X3), as it increases each Of them, by 1%, the average per capita share in the

American market of Egyptian juices and drinks decreases by 1.5% and 2.1%, respectively. The value of the coefficient of determination is about 0.83. The estimates of price elasticity, which were estimated at -1.5, indicate that the demand for Egypt's exports of juices and beverages to the US market is relatively elastic, And in a manner that reflects the need to work on the quality of the Egyptian product and not to raise the export price of Egyptian juices and drinks to the American market, and the value of the transitive flexibility of about 1.2 indicates an increase in the competition that Egyptian juices and drinks face from the Spanish product, and then the need to work on raising the competitive capabilities of Egyptian juices and drinks in front of its counterparts Spanish.

As for the Egyptian exports of frozen and processed vegetables, equation (2) in the previous table indicates the existence of an inverse relationship between the average per capita share of Egyptian frozen and processed vegetables exports in the Saudi market in kg (Y2) and the average export price of a kg of Egyptian frozen vegetables to the Saudi market (X4), As the increase in the export price of Egyptian frozen vegetables in the Saudi market by 1%, the average per capita share of Egyptian juices and beverages in the Saudi market decreases by 1.6% during the study period, which means that the individual demand for Egyptian frozen vegetables in the Saudi market is relatively elastic.

As well as the existence of a direct relationship between the average per capita share of Egyptian frozen vegetables exports in the Saudi market and the average price of Morocco's export of frozen vegetables to the Saudi market (X5) and the average per capita share of GDP in the Saudi market (X6), as each increased by a percentage 1% increases the average per capita share in the Saudi market of Egyptian frozen vegetables by 1.5% and 1.6%, respectively. The value of the coefficient of determination is estimated at 0.78, The estimates of price elasticity, which were estimated at -1.6, indicate that the demand for Egypt's exports of frozen vegetables to the Saudi market is relatively elastic, and the value of the transit elasticity of about 1.5 indicates the increased competition that Egyptian frozen vegetables face from the Moroccan product, and therefore work must be done on the quality of the Egyptian product. And not to raise the export price of Egyptian frozen vegetables to the Saudi market to raise their competitive capabilities against their Moroccan counterparts. As for the Egyptian tomato factory exports, equation (2) in Table (9) indicates the existence of an inverse relationship between the average per capita share of Egyptian tomato factory exports in the Italian market in kg (Y3) and the average export price per kg of Egyptian tomato factory in the Italian market (X7), Whereas, with an increase in the export price of Egyptian tomato plants in the Italian market by 1%, the average per capita share of Egyptian tomato plants in the Italian market decreases by 1.9% during the study period, which means that the individual demand for Egyptian tomato plants in the Italian market is relatively elastic. As well as the existence of a direct relationship between the average per capita export of Egyptian tomato factories in the Italian market and the average export price of Tunisia tomato factories to the Italian market (X8) and the average per capita share of the Italian market of GDP (X9), as each increased by a percentage 1% increases the average per capita share in

the Italian market of Egyptian tomato plants by 2.4% and 2.2%, respectively. The value of the coefficient of determination is about 0.81. The estimates of the price elasticity, which were estimated at -1.9, indicate that the demand for Egypt's exports of tomato factories to the Italian market is relatively elastic, and the value of the transitive elasticity of about 2.4 indicates the increased competition that Egyptian tomato factories face from the Tunisian product, and therefore work must be done on the quality of the Egyptian product. And not to raise the export price of the Egyptian tomato plants to the Italian market to raise their competitive capabilities against their Tunisian counterparts.

Table (9) Determinants of individual demand for the most important exports of food industry products in the most important global markets for the period 2001-2020

N	market	function	R^2	F	PE	TE
		Juices and drinks				
1	USA	$Ln\ y_1 = 30.6 - 1.5\ Ln\ x_1 + 1.2\ Ln x_2 + 2.1\ Ln\ x_3$ (2.8) ** (-4.1) ** (4.6) ** (4.1) **	0.83	26.5	-1.5	1.2
		frozen vegetables				
2	Saudi Arabia	$Ln\ y_2 = 12.9 - 1.6\ Ln\ x_4 + 1.5\ Ln\ x_5 + 1.6\ Ln\ x_6$ (1.3) - (-2.5) (2.2)* (-3.8) **	0.78	7.7	-1.6	1.5
		tomato plants				
3	Italy	$Ln\ y_3 = 10.2 - 1.9\ Ln\ x_7 + 2.4 Ln x_8 + 2.2\ Ln\ x_9$ (2.5)* (-3.8) ** (2.1)* (2.2)*	0.81	7.9	-1.9	2.4
		Jam				
4	UAE	$Ln\ y_4 = -51.4 - 1.3\ Ln\ x_{10} + 1.5\ Ln\ x_{11} + 3.2\ Ln\ x_{12}$ (2.2)* (-4.9)* * (-4.8)* * (6.2) **	0.83	13.2	-1.3	1.5

* Significant at (0.05)   ** Significant at (0.01)
Source: Calculated from: - World Trade Center data: https://www.trademap.org
- World Bank database: https://databank.worldbank.org

As for the Egyptian jam exports, equation (4) in the previous table indicates that there is an inverse relationship between the average per capita share of Egyptian jam exports in the UAE market in kilograms (Y4) and the average export price per kilogram of Egyptian jam to the UAE market (X10), as it increases the export price of Egyptian jam Egyptian jam in the UAE market decreased by 1% The average per capita share of Egyptian jam in the UAE market decreased by 1.3% during the study period, This means that the individual demand for Egyptian jam in the Italian market is relatively elastic. As well as the existence of a direct relationship between the average per capita share of Egyptian jam exports in the UAE market and the average price of Spain's jam export to the UAE market (X11) and the average per capita share of the UAE market of GDP (X12), with an increase in each of them by 1% The average per capita share of Egyptian jam in the Italian market increases by 1.5% and 3.2%, respectively. The value of the coefficient of determination is about 0.83. The estimates of the price elasticity, which were estimated at -1.3, indicate that the demand for Egypt's exports of jam to the UAE market is relatively elastic, and the value of the transit elasticity, which is about 1.5, indicates an increase in the competition that the Egyptian jam faces from the Spanish product, and therefore work

must be done on the quality of the Egyptian product and not raise The export price of Egyptian jam for the UAE market to raise its competitive capabilities against its Spanish counterpart.

The future of Egyptian exports is one of the most important food industries: Table No. (10) shows that the predictive values of Egyptian exports of food industries using the Integrated Autoregressive Model and Moving Averages (ARIMA) ranged between about 817.7 million dollars as a minimum in 2020 and about 995 million dollars as a maximum in 2030 .

The data of the previous table indicates that the predictive values of the quantity of Egyptian exports of juices and syrups ranged between about 185 thousand tons as a minimum in 2020 and about 262 thousand tons as a maximum in 2030. While the predictive values of the quantity of Egyptian exports of processed and frozen vegetables ranged between 37.8 thousand tons as a minimum in 2020 and about 44.6 thousand tons as a maximum in 2030. The predictive values of the Egyptian exports of tomato plants ranged between 8.9 thousand tons as a minimum in 2020 and about 12 thousand tons as a maximum in 2030, while the predictive values of the Egyptian exports of jam ranged between 15.9 thousand tons as a minimum in 2020 and about 39.6 thousand tons as a maximum Max 2030.

Table. (10) Future prospects for the most important variables related to the foreign trade of the Egyptian food industries during the period 2021-2030 (quantity thousand tons, value million dollars)

years	food industry balance	Total food industry exports	Total imports of food industries	Export quantity of juices and syrups	Quantity of frozen and processed vegetables exports	Quantity of processed tomato exports	Jam Export Quantity
Period	*Forecast*	*Forecast*	*Forecast*	*Forecast*	*Forecast*	*Forecast*	*Forecast*
2021	-521.044	817.659	1122.51	185.066	37.8357	8.93877	15.8553
2022	-668.604	838.124	1165.77	190.256	41.7894	9.98616	17.4812
2023	-756.034	858.395	1200.74	199.182	42.528	10.2162	19.2979
2024	-807.837	878.474	1229.01	208.109	42.6659	10.2667	21.3275
2025	-838.531	898.364	1251.87	217.035	42.7917	10.3778	23.5952
2026	-856.717	918.065	1270.34	225.962	42.8965	10.5803	26.1288
2027	-867.492	937.581	1285.28	234.888	42.9974	10.7808	28.9595
2028	-873.877	956.912	1297.35	243.815	43.6976	11.2809	32.1221
2029	-877.66	976.06	1307.11	252.741	43.7976	11.8809	35.6556
2030	-879.901	995.028	1315	261.668	44.5876	11.9809	39.6035
Expected growth rate	69	22	17	41	18	34	150

Source: Compiled and calculated from: International Trade Data: https://www.trademap.org

The previous results indicate the possibility of developing Egyptian exports of food industries in global markets, and jam is one of the most studied commodities that is expected to witness a growth in the quantity exported to global markets by 15%, and juices and syrups come in second place with an expected growth in the

exported quantity amounting to about 41 %, and in the third and fourth places are tomato factories, and frozen and processed vegetables, with an expected growth rate of about 34% and 18% for each, respectively.

Summary

The study aimed to identify the possibilities of increasing Egyptian exports of food industries, by studying the commodity and geographical distribution of them, in addition to estimating the indicators of competitiveness of the food industries in global markets and predicting the future of Egyptian exports to the food industries in light of the current local and international conditions. . The research results found that there was a deficit in the trade balance of the food industries during the study period estimated at about 923 million dollars, and it was also shown that the Egyptian exports of food industries increased from about 220 million dollars as an average for the period (2001-2010) to about 741 million dollars as an average period (2011-2020), in contrast to the increase in Egyptian imports from about 838 million dollars on average for the period (2001-2010) to about 1969 million dollars as an average for the period (2011-2020). It was also found that manufactured goods from horticultural crops collectively represent about 22% of the total food industry exports, representing 12% of juices and sherbet exports, 9% of frozen vegetables, and 1% of tomato industries. Competitiveness indicators also indicate that Egypt has competitive capabilities in the global markets for juices and syrups, while its competitive capabilities decrease in the markets of frozen and processed vegetables, tomato and jam factories, due to the burdens borne by Egyptian manufacturers and exporters, which increase the costs of the exported product compared to competing countries, which indicates the importance of working to raise these costs. Burdens by increasing the allocations for export support and export support and providing the necessary financing to complete manufacturing operations for export at low interest, especially reducing inspection costs and quality certificates The results also indicate the possibility of developing Egyptian exports of food industries in international markets, especially jams, juices and drinks.

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الملخص

استهدفت الدراسة التعرف على ممكنات زيادة الصادرات المصرية من الصناعات الغذائية وذلك من خلال دراسة التوزيع السلعى والجغرافي لها، بالإضافة إلى تقدير مؤشرات التنافسية للصناعات الغذائية فى الأسواق العالمية والتنبؤ بمستقبل الصادرات المصرية للصناعات الغذائية فى ظل الظروف المحلية والدولية الراهنة. وقد توصلت النتائج البحثية إلى وجود عجز فى الميزان التجاري للصناعات الغذائية خلال فترة الدراسة يقدر بنحو ٩٢٣ مليون دولار ، كما تبين زيادة الصادرات المصرية من الصناعات الغذائية من حوالي ٢٢٠ مليون دولار كمتوسط للفترة (٢٠٠١-٢٠١٠) إلى حوالي ٧٤١ مليون دولار كمتوسط الفترة(٢٠١١-٢٠٢٠) ، فى مقابل زيادة الواردات المصرية من حوالي ٨٣٨ مليون دولار كمتوسط للفترة (٢٠٠١-٢٠١٠) إلى نحو ١٩٦٩ مليون دولار كمتوسط للفترة (٢٠١١-٢٠٢٠). كما تبين أن السلع المصنعة من الحاصلات البستانية تمثل مجتمعة حوالي ٢٢% من إجمالي صادرات الصناعات الغذائية تمثل صادرات العصائر والشربات منها ١٢%، والخضروات المجمدة ٩%، ومصنعات الطماطم ١%. كما تشير مؤشرات التنافسية إلى تمتع مصر بقدرات تنافسية فى الأسواق العالمية للعصائر والشربات بينما تنخفض القدرات التنافسية لها فى أسواق الخضر المجمدة والمصنعة ومصنعات الطماطم والمربى نظراً للأعباء التي يتحملها المصنعون والمصدرون المصريون والتي تزيد من تكاليف المنتج المصدر مقارنة بالدول المنافسة مما يشير لأهمية العمل على رفع هذه الأعباء من خلال زيادة مخصصات الدعم التصديري والمساندة التصديرية وتوفير التمويل اللازم لإتمام عمليات التصنيع من أجل التصدير بفائدة منخفضة وخاصة تخفيض تكاليف الفحص وشهادات الجودة. كما تشير النتائج إلى إمكانية تنمية الصادرات المصرية من الصناعات الغذائية بالأسواق العالمية وخاصة المربى والعصائر والشربات.

الكلمات المفتاحية : الصناعات الغذائية – الخضر والفاكهة– الصادرات– العصائر