Nature and Science

Analytical study of the economic efficiency of Egyptian grapes in the most important global markets

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Abstract: Grapes are the second largest fruit crop in Egypt after citrus fruits, as it is estimated at 1533.11 thousand tons, and the volume of exports is estimated at 173.67 thousand tons as an average for the period (2008-2018). The best export months for Egyptian grapes are in May, June and July of each year. Especially to European countries, where Egypt has export seasons and does not have quantitative quotas (exemption from customs duties within the export seasons) in accordance with the Egyptian-European Partnership Agreement, and the research aims to increase the amount of Egypt's exports of grapes to those markets where the volume of its production and the volume of its imports of grapes decrease according to The world level during the month (May-June and July) of each year, due to the delay in the emergence of Spanish grape production in that period, which is the biggest competitor for Egyptian grapes in those markets, which increases the competitive advantage of this crop in the same period.

Key Words: Relative Production, Relative price, Market Share, The Relative Importance of Exports, Market Penetration Rate, Determinants of external demand

1. Introduction

The process of developing Egyptian agricultural exports is linked to many important indicators that contribute to supporting the local economy and its growth, and accordingly, determining the quality of products that can be exported with high efficiency is linked to many indicators related to impact, flexibility and efficiency. Fruit crops are produced in Egypt after citrus fruits, as it is estimated at 1533.11 thousand tons, and the volume of exports is estimated at 173.67 thousand tons during the period (2008-2018), and the best export months for Egyptian grapes in the following months are May, June and July of each year, especially to European countries, where Egypt has export seasons and does not have quantitative quotas (exemption from customs duties within export seasons) in accordance with the Egyptian-European Partnership Agreement [1], due to the decrease in the volume of production and imports of the European market of grapes during that period, which gives Egypt a comparative advantage in exporting any The amount of grapes in that period.

This indicates the need to implement the new system, by improving product quality conditions, conducting shipping and exporting operations in accordance with quarantine requirements, and in accordance with international standards for export quality, in addition to applying a traceability system for export products during the stages of cultivation, production, packaging and export, which is one of the tools for the success of the export policy. To Egypt, as periodic confirmation measures to ensure international standards in order to preserve the reputation of Egyptian exports.

Research problem:

Represented by the fluctuation of the exported quantity of Egyptian grapes, as well as the decrease in the percentage of exports in relation to the volume of production from it, during the study period (2008-2018), as it was evident that Egyptian grapes were exposed to strong competition from grape-exporting countries within the most important import markets, as well as the concentration of most Egyptian exports of grapes. In the following months, May, June and July of each year, which indicates the strength of competition for Egyptian grapes in the export market.

Aim of Study:

The research aims to study the current status of Egyptian grape production and exports to the most important global markets, and to study this goal, the following is identified:

Study the development of the current situation of grape production in Egypt during the period (2008-2018), study the development of Egyptian grape exports during the period (2008-2018), study the development of global trade of grape crops as an average for the period (2014-2018), study the geographical distribution of the most important grape

importing countries Egyptian world-wide study of the geographical distribution of Egypt's monthly exports of grapes to the most important global markets, studying the competitive position of Egyptian exports in the most important global markets, namely the England, Netherlands and Russian markets, in addition to studying the determinants of external demand in the most important markets competing for Egyptian exports of grapes.

2. Methods:

The research relied on descriptive and quantitative methods. The general chronological trend equations were used to describe the most important variables of total production and Egyptian exports of grapes during the period (2008-2018), in addition to studying the determinants of external demand through the use of the staged regression method in the different forms of the function to choose the best one. The most important economic factors affecting the amount of Egyptian grape exports to a country, as several attempts were made to estimate the multiple regression relationship of the variables by using the correlation matrix to exclude the less related variables, and obtaining the most important variables affecting the amount of Egyptian grape exports in the imported market, which are consistent With economic and statistical reasoning.

In addition to calculating the indicators of the competitiveness of Egyptian grapes in the most important global markets using the foreign trade indicators represented in: production competitiveness, price competitiveness, market share, the relative importance of exports, penetration coefficient for each of Egypt's exports and competing countries within the most important import markets for grapes as an average for a period The study, to identify the impact of the most important competing countries for Egyptian exports within the most important importing markets for Egyptian grapes, in order to intensify efforts towards increasing the competitive advantage of Egyptian grapes and increasing the proportion of its exports globally.

Data sources:

The research relied on data issued by several official agencies represented in the statistics of the Food and Agriculture Organization (FAOSTATE), United Nations statistics (Comtrade, Trade Map, Export Development Authority of the Ministry of Trade and Industry), and some data sites, research and studies related to the research topic on the Internet International information (internet).

3. Results and Discussion
First: The development of Egyptian grape exports during the period (2008-2018):

The time period (2008-2018) was chosen to study the development of the total production, quantity, value and prices of Egyptian exports of grapes, and the previous period before (2008) was excluded from the chain, as this period is considered more stable in the world market after the world food crisis Which ended in 2008. 1- Development of the total production of Egyptian grapes: Table (1) shows that the average total production of grapes reached about 1533.11 thousand tons during the period (2008-2018), and the data indicate that the amount of total production of grapes fluctuated between a minimum of about 1320.80 thousand tons in a year. 2011, and a maximum of about 1759.47 thousand tons in 2018, with an increase estimated at about 14.7% of the average, and by estimating the general time trend equation from Table (2), it was found that total production took a statistically significant increasing general trend of about 41.26 thousand tons annually, with a rate of change of About 2.69% of the average during the study period.

2 -Evolution of the quantity of Egyptian exports of grapes: Table (1) showed that the quantity of exports of grapes during the study period (2008-2018) ranged between a minimum of 113.49 thousand tons in 2014 and a maximum of 199.06 thousand tons in 2008, with an annual average of about 146.77 thousand tons. The estimates of the general time trend equation for the development of the quantity of grape exports from Table (2) indicate a decrease in the amount of Egyptian grape exports to the world at a statistically significant annual rate of about (4.88-) thousand tons annually, with a change rate of about 3.33% for the same period of study.

3- Evolution of the value of Egyptian exports of grapes: The study data shown in Table 1 indicate that the value of Egyptian exports of grapes ranged between a minimum of $ 161.44 million in 2008, and a maximum of about $ 245.08 million in 2014, with an annual average of about 215.52 million Dollars.

Estimates of the general time trend equation for the development of the value of Egyptian exports of grapes during the study period in Table (2) indicate that they increased at a statistically significant annual rate of about $ 4.38 million annually, with a change rate of about 2.03% of the average value of exports during the study period.

4- Evolution of the Egyptian export price of grapes: According to the data of Table (1), the average export price of Egyptian grapes during the study period was estimated at about $ 154,000 / ton, as it ranged between two minimum limits of about $ 0.81,000 / ton in 2008, and a maximum of About 2.16 thousand dollars / ton in 2014.

Estimates of the general time trend equation for the development of the export price of Egyptian

grapes from Table (2) during the study period (2008-2018) indicate an increase in that value at a statistically significant annual rate of about $ 0.07

thousand / ton, with a change rate of about 1.54% of the average. For the export price of Egyptian grapes during the same period.

Table (1): The development of total production and Egypt's exports of grapes (2008-2018)

Year	Product		Quantity Ex			Value Ex		Price
	Product	Annual rate of change %	Quantity	Annual rate of change %	% amount of exports of production	Value	Annual rate of change %	
2008	1531.42	-	199.06	-	13.00	161.44	-	0.81
2009	1370.24	(10.52)	135.59	(31.89)	9.90	225.38	39.61	1.66
2010	1360.25	(0.73)	172.11	26.94	12.65	202.05	(10.35)	1.17
2011	1320.80	(2.90)	168.92	(1.86)	12.79	210.06	3.96	1.24
2012	1378.82	4.39	116.05	(31.30)	8.42	224.31	6.78	1.93
2013	1434.67	4.05	158.35	36.44	11.04	183.36	(18.26)	1.16
2014	1596.17	11.26	113.49	(28.33)	7.11	245.08	33.66	2.16
2015	1686.71	5.67	166.59	46.80	9.88	241.62	(1.41)	1.45
2016	1691.19	0.27	133.79	(19.69)	7.91	218.49	(9.57)	1.63
2017	1734.42	2.56	130.30	(2.61)	7.51	237.35	8.63	1.82
2018	1759.47	1.44	120.27	(7.70)	6.84	221.55	(6.66)	1.84
Average	**1533.11**	-	**146.77**	-	-	**215.52**	-	**1.54**

Quantity: 1000 tons, value: million dollars, price: 1000 dollars/ ton
Source: Collected and calculated from: UN COMTRADE and ITC statistics. & www.Faostate.com
* Numbers in parentheses are negative values

Table (2): Results of the statistical assessment of the general time trend equations for total production and exports of Egyptian grapes during the period (2008-2018)

Variables	General Trend Equations	R^2	F	Average	Rate of change%
Total production (Thousand tons)	$\hat{Y}_i$= 1285.52 + 41.26 Xi (4.28)**	0.67	18.32**	1533.11	2.69
The amount of exports (Thousand tons)	$\hat{Y}_i$ = 176.08 - 4.88 Xi (-2.15) **	0.34	4.64**	146.77	3.33
Export value (Million dollars)	$\hat{Y}_i$=189.25 + 4.38 Xi (2.10)**	0.33	4.40**	215.52	2.03
Export price (Thousand dollars / ton)	$\hat{Y}_i$ = 1.11 + 0.07 Xi (2.15)**	0.34	4.62**	1.54	1.54

Source: Collected and calculated from Table (1)
Numbers in parentheses indicate a value (T) Calculated) (** Significance at 1%.
$\hat{Y}i$: Estimated value of the development of some economic indicators in the year.
Xi: Element of time, where = 1, 2, 3,...............11

5- Annual rate of change in total production, quantity and export value of Egyptian grapes:

It was found from the study of Table (1) that the annual rate of change ranges between increase and decrease for each of the total production, the quantity and value of Egyptian exports of grapes during the study period, where the percentage of the annual increase in the quantity of production ranged between a minimum of about 0.27% in 2016. A maximum of about 11.26% in 2014, and the annual percentage deficiency ranged between a minimum of about 0.73% in 2010, and a maximum of about 10.52% in 2009.

With regard to the annual rate of change in the quantity of exports of grapes, the annual percentage

increase ranged between a minimum of about 26.94% in 2010, and a maximum of about 46.80% in 2015, and the annual percentage decrease ranged between a minimum of about 1.86% in 2011, and a limit. A maximum of 31.89% in 2009.

With regard to the annual rate of change in the value of exports of grapes, the annual percentage increase ranged between a minimum of about 3.96% in 2011, and a maximum of about 39.61% in 2009, and the percentage of annual decrease ranged between a minimum of about 1.41% in 2015, and a limit. A maximum of 18.26% in 2013.

Second: Global grape trade on average for the period (2014-2018):

1. Geographical distribution of the most important grape-exporting countries in the world:

Table (3) shows the geographical distribution of the most important grape-exporting countries in the world in terms of quantity as an average for the period (2014-2018), and by studying the data of this table, it became clear that Chile is the first countries in the world exporting grapes in terms of the amount of exports as an average for the period of study amounted to about 798.79 thousand tons With an estimated rate of 17.29% of the total exported quantity of grapes

worldwide (estimated at 4,620.99 thousand tons), and the rate of change of the amount of Chile's exports of grapes worldwide between (2014-2018) was about 12.29%, with an estimated export value. At about $ 1142.12 million, which represents about 14.19% of the total value of grape exports worldwide (estimated at $ 8,048.25 million), and at a rate of change of Chile's exports of grapes worldwide between (2014-2018), it was estimated at (28.56)%, at a price. My export of grapes was estimated at 1.43 thousand dollars / ton as an average for the study period.

Table (3): Geographical distribution of the most important grape-exporting countries in the world according to the quantity of exports as an average for the period (2014-2018)

Country	The amount of exports	%	The rate of change of the quantity of exports between (2014-2018) %	Carats Export value	%	The rate of change in the value of exports between (2014-2018) %	Export prices
World	4620.99	–	17.11	8048.25	–	6.15	1.74
Chile	798.79	17.29	12.29	1142.12	14.19	(28.56)	1.43
Italy	473.10	10.24	2.77	777.04	9.65	5.49	1.64
America	405.73	8.78	(5.58)	936.51	11.64	(10.16)	2.31
Netherlands	326.22	7.06	31.45	828.77	10.30	27.36	2.54
China	317.77	6.88	8.58	643.75	8.00	92.18	2.03
Peru	290.74	6.29	20.01	679.13	8.44	18.80	2.34
South Africa	229.63	4.97	120.15	500.23	6.22	9.10	2.18
India	212.76	4.60	(30.09)	223.44	2.78	23.21	1.05
Hong Kong	185.62	4.02	31.62	350.31	4.35	15.10	1.89
Turkey	162.66	3.52	(2.97)	152.80	1.90	(40.06)	0.94
Spain	155.34	3.36	20.69	349.29	4.34	19.16	2.25
Australia	142.99	3.09	25.58	264.41	3.29	38.94	1.85
Egypt	**132.89**	2.88	5.97%	232.82	2.89	(9.60)	1.75

(Quantity: One Thousand Tons, Value: Million US Dollars, Price: Thousand US Dollars / Ton)
Source: Collected and calculated from: UN COMTRADE and ITC statistics.
* Egypt ranking according to the quantity of grape exports worldwide (13), and according to the value of grape imports worldwide (10).   * Numbers in parentheses are negative values

The same table also showed that Italy came in second place in terms of the amount of exports, which amounted to about 473.10 thousand tons, at a rate of about 10.24% during the study period, with a change rate between (2014-2018) amounted to about 2.77%, while the value of exports reached Italian grapes are about $ 777.04 million, which represents about 9.65% of the total value of global exports of grapes, with a rate of change between (2014-2018) estimated at about 5.49% and an export price of about $ 1.64 thousand / ton, followed by America, the Netherlands, China, The quantity of its exports of grapes was estimated at about 405.73, 326.22, and 317.77 thousand tons respectively, representing about 8.78%, 7.06% and 6.88% of the total quantity exported grapes worldwide as an average for the study period (2014-2018), with a rate of change between the years (2014) -2018) It

reached about (5.58)%, 31.45%, 8.58%, with the value of exports estimated at 936.51, 828.77, and 643.75 million dollars each, respectively, representing about 11.64%, 10.30%, 8.00% of the total value of grape exports worldwide., With a change rate estimated at (10.16) %, 27.36%, 92.18, and an export price estimated at 2.31, 2.54, and 2.03 thousand dollars / ton, respectively, in Table (3).

Egypt also ranked thirteenth among the most important grape-exporting countries in terms of quantity, and tenth in terms of value, as an average for the period (2014-2018), as the quantity of its exports was estimated at 132.89 thousand tons of grapes, at a rate estimated at 2.88% of the total quantity. Grape exports worldwide, at a rate of change estimated at about 5.97% between (2014-2018). While the value of its exports amounted to about $ 232.82 million, at a

rate estimated at about 2.89% of the total value of world exports of grapes as an average for the study period, with a change rate estimated at about (9.60)% between (2014-2018), and the prices of those exports were estimated at about 1.75 thousand Dollars / ton, from the data of Table (3). This indicates the lack of value and quantity of Egypt's exports of grapes as an average for the period (2014-2018) compared to the amount of exports from Chile, Italy, America, as they are the largest competitors for Egypt's exports of grapes in the most important global grape markets, despite the low growth rate of the quantity of those exports. Countries of grapes in the world during that period, which indicates the need to develop the Egyptian production sector of grapes with quality and value appropriate to compete in global markets, and to study the competitiveness of exports of Egypt and those countries of the grape crop, so that the volume of Egyptian exports of grapes can be increased worldwide. In the coming years.

2. Geographical distribution of the most important Egyptian grape importing countries worldwide:

Table (4) shows the geographical distribution of the most important Egyptian grape importing countries in the world in terms of quantity as an average for the period (2014-2018). By studying the data of this table, it became clear that England is the largest importer of Egyptian grapes in the world in terms of the amount of Egyptian grape exports as an average. For the period of the study, the amount imported by the England market amounted to about 186.78 thousand tons, at a rate of about 28.11% of the total quantity of Egyptian grapes, estimated at 664.44 thousand tons, and the rate

of change of the quantity of those imports in the England market between the years (2014-2018) was estimated at about (The value of imports is estimated at about $ 349.98 million, which represents about 30.06% of the total value of Egypt's exports of grapes, estimated at $ 1164.10 million, with an estimated change of about (20.75)% between (2014-2018) and an export price estimated at 1.87 thousand $ / Ton average for the study period.

The table data also indicate that the Netherlands came in second place in terms of the amount of its imports of Egyptian grapes, which amounted to about 131.33 thousand tons, with a rate of about 19.77% of the average quantity of Egyptian exports of grapes for the period (2014-2018), with a rate of change of the Netherlands market imports of grapes. Egyptian was estimated at 25.45% between (2014-2018), while the value of grape imports amounted to about $ 264.34 million, representing about 22.71% of the total value of Egyptian grape imports, and the rate of change between (2014-2018) was estimated at (3.34).)%, And the export price reached about $ 2.01 thousand / ton.

It is followed by Germany, Russia, Saudi Arabia, the Emirates and Italy, where the quantity of its imports of Egyptian grapes was estimated at 63.12, 57.22, 44.10, 26.39 and 18.42 thousand tons respectively, representing about 9.50%, 8.61%, 6.64% and 3.97%., 2.77% of the total imported quantity of Egyptian grapes as an average for the study period (2014-2018), and the rate of change estimated the amount of those imports towards 70.71%, 61.70%, (55.93)%, (22.05)%, (46.78%) between the two years) 2014-2018).

Table (4): Geographical distribution of the most important importing countries of Egyptian grapes in the world average for the period 2014-2018

The most important importing countries for grapes	The amount of exports	%	The change rate of the quantity of exports between (2014-2018) %	Carats Export value	%	The rate of change in the value of exports between (2014-2018) %	Export prices
World	664.44	-	5.97%	1164.10	-	9.60	1.75
England	186.78	28.11	6.78	349.98	30.06	(20.75)	1.87
Netherlands	131.33	19.77	25.45	264.34	22.71	3.34	2.01
Germany	63.12	9.50	70.71	111.47	9.58	13.00	1.77
Russia	57.22%	8.61	61.70	90.57	7.78	32.00	1.58
Saudi	44.10	6.64	(55.93)	42.72	3.67	(40.59)	0.97
UAE	26.39	3.97	22.05	39.91	3.43	(45.86)	1.51
Italy	18.42	2.77	(46.78)	37.82	3.25	(53.48)	2.05

Quantity: thousand tons, Value: million dollars, Price: thousand dollars / ton
Source: compiled and calculated from: ITC calculations based on UN COMTRADE and ITC statistics. * Numbers in parentheses are negative values

The value of imports was estimated at 111.47, 90.57, 42.72, 39.91, and 37.82 million dollars each,

respectively, representing about 9.58%, 7.78%, 3.67%, 3.43%, 3.25% of the average total value of Egyptian

grapes imports, and the growth rate was estimated at about 13.00%, 32.00%, (40.59)%, (45.86)%, (53.48%) respectively between (2014-2018), while the export price of grapes in each country reached 1.77, 1.58, 0.97, 1.51 and 2.05 thousand. Dollars / ton, respectively, from Table) 4).

3. Geographical distribution of Egypt's monthly exports of grapes to the most important global markets: It is clear from the data of Table (5) that the monthly exports of Egyptian grapes to the most important importing countries in the world in 2018, starting from May until November, and the quantity of exports for each month (May, June, July) represents the largest exported quantity of grapes. Egyptian for global markets, reaching about 31,928, 48954, and 13340 tons, respectively, in 2018.

While the monthly Egyptian exports of grapes to the global market for the months of September and

October represented the lowest quantities exported in 2018, reaching about 2,389,1094 tons, respectively, and a marked decrease in the amount of Egypt's monthly exports during the month of November, reaching about 111 tons 2018 year. Table (5) data also indicates that the amount of imports from England, the Netherlands, and Russia that imported Egyptian grapes for the month of May amounted to about 7586, 9116, and 3123, and the month of June reached about 12456, 11974, 718 tons, respectively, and it reached about 2285, 872 678 for the month of July, 2018.

This indicates the need to work on preserving these markets and increasing the volume of Egypt's exports of grapes to them during the optimal months for export, by improving the quality of exported grapes, in accordance with the terms and requirements of export, so that Egypt can increase the percentage of exports from the total domestic production of grapes.

Table (5) Egypt monthly exports to the most important global markets of grapes in 2018

May		June		Jul		Aug		September		October		Nov	
World	31928	World	48954	World	13340	World	3578	World	2389	World	1094	World	111
Netherlands	9116	England	12456	England	2285	Malaysia	446	KSA	572	Libya	911	Libya	100
England	7586	Netherland	11974	Malaysia	1363	KSA	348	Oman	484	Nigeria	31	Palestine	6
Germany	4112	Russia	7182	KSA	1290	UAE	334	Libya	306	Uganda	29	KSA	5
Russia	3123	Germany	5347	Oman	899	Kenya	295	Kuwait	277	Kenya	29	-	-
KSA	1936	KSA	2127	Netherland	872	Oman	237	UAE	217	KSA	27	-	-
Oman	863	Italy	983	Russia	678	England	188	Bahrain	117	Bahrain	23	-	-
Italy	801	Oman	668	Italy	203	Netherland	15	Malaysia	105	UAE	12	-	-

Quantity: Tons
Source: Ministry of agriculture and land reclamation, <u>central administration of agricultural quarantine</u> statistics department, July 2020.

4. Geographical distribution of the monthly exports of grapes in the most important global markets: In order to determine the most important competing countries for Egyptian grapes in the global market, the geographical distribution of the most important importing countries for Egyptian grapes (England, Holland, Russia), the market share of Egypt and the most important competing countries in these markets during the following months (May, June, July) in 2018 should be studied, given the high volume Egyptian exports of grapes during that period to the global market, so that the relative importance of Egypt in the most important import markets for Egyptian grapes during that export period for Egyptian grapes can be studied, and then the comparative and competitive advantage and determinants of demand for the imported quantities of Egyptian grapes in those markets can be measured, as shown by Table data (6).

Table (6) also indicates that Egypt is the largest exporter of grapes to the markets of England, Holland,

and Russia for the months: May, June, and July 2018, as its market share in the England market reached about 39.96%, followed by Spain, the Netherlands, Germany. With a market share of about 12.46%, 4.51 and 4.06%, respectively, as an average of the amount of England's imports of grapes at the world level for that period, and the market share of Egypt from the Netherlands market imports of grapes in the world reached an average for the months of May, June, July 2018 about 30.76 %, Followed by Germany, Spain, and Italy, by about 3.84%, 3.26%, and 2.82%, respectively, as an average of the amount of the Netherlands imports of grapes worldwide for the same period, and the market share of Egypt from the Russian market imports of grapes worldwide reached an average for the same The period is about 23.60%, followed by Chile, India, and China with 18.47%, 10.85%, and 4.12%, respectively, as the average amount of Russia's imports of grapes in the world for the months (May-June-July) of 2018.

Table (6): The main competitors for Egyptian grapes in the market are England, Holland and Russia During the months (May, June, July) 2018. The amount of imports: tons

Markets	Exporting countries	May	June	Jul	Average	Market share
England	World	23784	19442	13219	18815	-
	Egypt	3680	15147	3727	7518	39.96
	Spain	216	943	5871	2344	12.46
	Netherlands	927	866	751	848	4.51
	Germany	836	862	592	763	4.06
Netherlands	World	45772	19142	9360	24758	-
	Egypt	5232	14597	3021	7617	30.76
	Germany	810	928	1116	951	3.84
	Spain	43	34	2346	808	3.26
	Italy	127	318	1652	699	2.82
Russia	World	13990	11008	20849	15282	-
	Egypt	1762	7258	1800	3606	23.60
	Chile	6969	1475	24	2823	18.47
	India	4532	443	0	1658	10.85
	China	253	795	839	629	4.12

Source: Collected and calculated from: UN COMTRADE and ITC statistics.
Of agricultural products that (have export seasons, and do not have quantitative quotas - exemption from customs duties within export seasons [1].

And from studying the current status of the monthly exports of Egyptian grapes to the most important global markets, that they are represented in England, the Netherlands (European Union countries), and Russia (a European country that is not affiliated with the European Union), as the amount of Egypt's exports of grapes to those markets in which the amount of production decreases. The domestic and global imports of grapes for the months of May, June, and July of each year, due to the delay in the emergence of Spanish grape production in that period, which is the largest competitor for Egyptian grapes in those markets, which increases the competitive advantage of this crop in the same period, which indicates an agreement. The Egyptian-European Participation (2002), as the Egyptian grape is considered.

Third: The competitive position of Egyptian exports in the most important global markets:

This part of the research aims to study the competitive conditions of Egyptian grapes by assessing the measurement of some indicators of competitive advantage, represented by the relative production, the relative price, the market share, the relative importance of exports, the rate of penetration, within the most important global imported markets for Egyptian grapes, represented in each of England, Holland, Russia, as an average for the period (2014-2018), in order to identify the strengths and weaknesses of Egyptian exports within the most important importing markets for Egyptian grapes, to overcome weaknesses and take advantage of the strengths and to achieve better opportunities for

Egyptian exports in those markets, with the aim of maximizing the return Total exports of Egyptian grapes.

The following are the most important economic indicators used:

1- **Relative production**: that is, the ratio between the country's production of a commodity and the global production of that commodity, and the higher this value indicates an improvement in the competitive position of the country's production quantity in relation to the production of its competing countries within the imported market, and it is estimated from the following equation [11]:

QAj = Qe / Qw

where:

- **QAj:** The ratio between the country production of the commodity and the global production of it.
- **Qe:** State production of the commodity.
- **Qw:** World production of the commodity.

2- **Relative price:.**

Relative price is one of the basic and important determinants in influencing The competitive position of the commodity in the world market, as each country seeks to attract new markets by reducing the prices of its exports compared to the prices of other competing countries in exporting the same commodity, and the price competitiveness index is estimated by finding the price ratio between the Egyptian export price and the export price of the other country that competes with it in Exporting the commodity into consideration, then the price ratio has decreased from the correct one, indicating the existence of a competitive price

advantage for Egypt in exporting that crop, and vice versa, in the event that this relative price rises from the correct one, and the relative price is calculated as follows [5]

PAj = Pe / Pc

where:

- **PAj:** The ratio between Egypt's price to that of the competing country.
- **Pe:** Average prices of the most important competing countries.
- **Pc:** The export price of the exporting country.

3- Market share:

The market share is considered one of the competitive indicators as it is high, it represents one of the main objectives of the process of expanding the volume of foreign sales to any country, and thus the rise in the market share reflects the high competitive position of any country, and the market share index expresses the percentage of a country exports of a particular commodity in a particular market to the imports of that market from different countries of the world from those Commodity, and is calculated by the following equation [10].

MsHji = (Xjci / Mcwi) X 100

where:

- **MsH$_{ji}$:** State market share j of the commodity i.
- **X$_j$c$_i$:** The amount of a country exports j to the state c From the world of the commodity i.
- **Mcw $_i$:** The total amount of the country imports c from the world of the commodity i.

4- The relative importance of exports (trade intensity): That is, the ratio of the country exports of the commodity to the most important market to the country total exports of the commodity, and is calculated from the following equation [5]

EXMP = EXMPij / EXj

where:

- **EXMP:** The ratio of the country exports of the commodity to the most important market to the total exports of the commodity.
- **EXMPij:** The country exports to the most important markets.
- **EXj:** The country total exports of the commodity.

5- Market Penetration Rate:

It is the ratio between the country exports of the commodity and its apparent consumption 'available for consumption' in the importing country, and it is the most widespread competitive measure, because it represents a measure of the acceptance and absorption of the commodity exported in foreign markets, as well as the possibility of increasing exports of that commodity in the imported market. And then it contributes to setting policies for external marketing of the commodity, and is estimated from the following equation [11]

MPRij = EXij / (Qij + Mij -Xij)

where:

- **MPRij:** The country rate of penetration of the most important market for the commodity j.
- **EXij:** Exports of the exporting country of the commodity j.
- **Qij:** The importing country production of the commodity j.
- **Mij:** The country imports of the commodity j.
- **Xij:** The country imports of the commodity j.

The following is an analytical explanation of the indicators of the competitiveness of Egyptian exports in the most important global markets under study: A- The England Market: The indicators of the competitiveness of Egyptian grape exports and the most important competing countries for them in the England market were estimated as follows: 1- Relative production: It is evident from the data of Table (7) that the value of the relative production index reached about 8.02%, 2.25%, 1.62%, and 0.001% for Spain, Egypt, Germany and the Netherlands respectively, which means that Spain surpassed Egypt. While Egypt surpasses all of the Netherlands and Germany in this indicator.

2- Relative price: Table (7) data indicates that the value of the relative price index reached 1.00, 0.87, and 0.78 for Germany, the Netherlands, and Spain, respectively, indicating a lower price ratio than the correct one, which indicates the existence of A competitive price advantage for Egypt in exporting grapes in the England market because its export prices are lower than the prices of competing countries in the England market, as the average export price for Egypt, Germany, the Netherlands, and Spain reached 2.01, 2.02, 2.32, 2.58 thousand dollars / ton, respectively. As an average for the period (2014-2018).

3- Market share: Table (7) data show that Spain comes first in the England market in terms of market share, as its exports represent about 19.88% of the average total imports of England, which was estimated at 267.00 thousand tons, followed by Egypt in second place by about 13.99%, Followed by the Netherlands and Germany, respectively, at about 6.37% and 0.09% of the average total imports of England, during the average period of the study (2014-2018), which reflects the ability of Egyptian grapes to capture a larger share of the England market for grapes.

Table (7): Indicators of the competitiveness of Egyptian grape exports and the most important competitor country in the most important foreign markets as an average for the period (2014-2018).

Marketplace	Competing countries	Relative production%	Relative price	%Market share	Exports relative importance%	Market penetration rate
England Market	Egypt	2.249	1.000	13.990	28.110	0.143
	Spain	8.018	0.778	19.883	34.198	0.203
	Netherlands	0.001	0.866	6.369	5.212	0.065
	Germany	1.617	0.995	0.093	0.824	0.001
Netherlands Market	Egypt	2.249	1.000	7.097	19.765	0.594
	Spain	8.018	0.914	2.387	5.691	0.200
	Italy	10.300	1.128	3.623	2.767	0.303
	Germany	1.617	1.020	0.591	7.275	0.049
Russian Market	Egypt	2.249	1.000	3.671	8.001	0.013
	India	3.618	1.117	6.723	13.618	0.023
	China	17.117	1.211	2.824	3.562	0.010
	Chile	3.196	1.089	2.101	2.213	0.021

Source: Collected and calculated from: UN COMTRADE and ITC statistics. •ww.Faostate.com

The relative importance of exports: Table (7) results showed that the relative importance of grape exports reached about 34.20%, 28.11%, 5.21%, and 0.82% for Spain, Egypt, Netherlands and Germany, respectively, as it was found that Spain was distinguished from Egypt. In this index, compared to the rest of the competing countries in this market, followed by Egypt in second place.

5- Market penetration rate: for countries competing in the England market: Table (7) data indicate that the market penetration rate amounted to 0.203, 0.143, 0.065, 0.001 for Spain, Egypt, Netherlands, Germany, respectively, as an average for the period (2014-2018). In other words, Egypt ranks second in this index, which indicates the high ability of Egyptian grapes to penetrate the England market, compared to both the Netherlands and Germany.

From the above, it was found that Spain is the biggest competitor to Egypt in the England market for grapes as an average for the period (2014-2018). Nevertheless, Egypt's strong presence in the England market has slowed down the export of Spanish grapes to England recently, according to the monthly data of England exports in 2018 from Table (6), as it was expected with the growth of demand within the England market that Spanish grapes would receive the first month of July, but the orders were delayed due to the wide presence of Egyptian grapes [12].

B- The Netherlands Market: The indicators of the competitiveness of Egyptian grape exports and the most important competing countries for them in the Netherlands market were estimated as follows:

1- Relative production: for countries competing in the Netherlands market, it is evident from the data of Table (7) that Italy ranked first in terms of the value of the production index, as it was estimated at 10.30%, followed by Spain, Egypt and Germany, with a value of about 8.02 %, 2.25%, and 1.62%, respectively, as Italy was distinguished in this indicator from the rest of its competing countries in this market, and the results also indicate a lower production rate for Egypt than its competitors in the Netherlands market, which indicates that Egypt does not meet the requirements of the Netherlands market from Grapes as average for the study period (2014-2018).

2- Relative price: Table (7) data indicates that the relative price reached about 1.13, 1.02, and 0.91 for Italy, Germany, and Spain, respectively, where the average export price for Spain, Egypt, Germany, Italy reached 2.22, 2.03., 1.99, 1.80, which indicates that Egypt has a competitive price advantage for grapes compared to Spanish grapes, and it also does not have a price advantage compared to Italian and German grapes within the Netherlands market as an average for the period (2014-2018).

3- Market share: Table (7) data show that Egypt ranks first in the Netherlands market, as its exports represent about 7.10% of the average total Netherlands imports of grapes as an average for the period (2014-2018), which was estimated at 370.10 thousand tons, followed by Italy, Spain, and Germany each accounted for 3.62%, 2.39%, and 0.59% respectively of the average total Netherlands imports during the study period.

4- The relative importance of exports: It was found from the results of Table (7) that the relative importance of Egyptian exports of grapes amounted to about 19.77%, followed by Germany, Spain, and Italy

by about 7.28%, 5.69%, 2.77%, respectively, for Egypt. The results showed that Egypt was distinguished in this index from the rest of the competing countries in the Netherlands market for grapes as an average for the study period (2014-2018).

5- Market penetration coefficient: Table (7) data indicate that the market penetration rate reached about 0.59, 0.30, 0.20, 0.05 for Egypt, Italy, Spain, and Germany, and it was found that Egypt came in first place in this indicator, as an average for the period (2014-2018), which indicates its distinction in the Netherlands market from the rest of its competitors in the Netherlands grape market, which indicates the ability of Egyptian grapes to penetrate the Netherlands market for grapes from other competing countries in the market.

From the above, it was found that Egyptian grapes have good prospects for spreading in the Netherlands market for grapes, as the Egyptian grapes are characterized by very high quality, and the prices are suitable for the Netherlands consumer, and the Netherlands market is one of the open markets for most Egyptian products, and the free trade agreement signed between Egypt and the European Union, It will lead to Egyptian grapes entering the Netherlands market without customs, and this is a competitive advantage for Egyptian grapes within the Netherlands market [9].

C- The Russian Market: Indicators of the competitiveness of Egyptian grape exports and the most important competing countries for them in the England market were assessed. 1- Relative production: for countries competing in the Russian grape market, the results of Table (7) indicate that China came in first place in the Russian market in terms of relative production, as it was estimated at 17.12%, followed by India in second place, by about 3.62%, followed by Each of Chile and Egypt is about 3.20% and 2.25%, respectively, as an average for the study period (2014-2018), as the results indicated that China is distinguished in this indicator from the rest of its competitors in the Russian market for grapes. 2- Relative price: It is evident from the data of Table (7) that the relative price reached about 1.21, 1.12, and 1.09 for China, India, and Chile, respectively, that is, Egypt does not enjoy a competitive price advantage when compared to the competing countries within the Russian market for grapes. As an average for the period (2014-2018), where the average export price for Egypt, Chile, India, China, and Chile reached about 1.72, 1.58, 1.54, 1.42, a thousand dollars / ton, which reflects the possibility of Egyptian grapes acquiring a larger share of the market Russian grapes, despite not having a competitive price advantage in this market, due to its quality and convenience to the consumer taste in this market.

3-Market share: Table (7) data indicate that India has acquired the largest market share within the Russian market by about 6.72%, followed by Egypt in second place by about 3.67%, then comes China and Chile with about 2.82% and 2.10%, respectively. Russia's average total imports of grapes in the world as an average for the period (2014-2018), which was estimated at 289.66 thousand tons. 4- The relative importance of exports: Table (7) data show that India came in first place in terms of the value of the relative importance of its exports of grapes to the Russian market, at a rate of about 13.62%, followed by Egypt, China, and Chile by 8.00%, 3.56%, 2.21 %, Respectively, which indicates that India has distinguished itself from Egypt in this index, and that Egypt has surpassed both China and Chile in the Russian market for grapes as an average for the study period (2014-2018). 5- Market penetration coefficient: Table (7) shows that India ranked first in terms of market penetration rate, which was estimated at 0.023, followed by Chile, Egypt, and China by 0.021, 0.013, and 0.010 respectively, which indicates India and Chile are distinguished from Egypt in this index, which indicates the intensity of competition within the Russian market for grapes as an average for the period (2014-2018).

From the foregoing it becomes clear that the Russian market is one of the most important importing markets for Egyptian grapes, and that Indian grapes are the biggest competitor to Egyptian grapes in recent times, as a result of the sudden admission to the Russian market after a period of interruption [3], which gives importance to increasing the exported share of Egyptian grapes to the Russian market.

Fourth: Determinants of external demand in the most important markets competing for Egyptian exports of grapes: To identify the most important economic factors determining the external demand for Egyptian exports of grapes in its most important export markets, represented in England, the Netherlands, and Russia during the period (2008-2018), where the method of staging regression was used in the linear or logarithmic double or half-logarithmic form. The appropriate factor in choosing the most important economic factors affecting the quantity of Egyptian exports of grapes to a country [8]. The most important determinant variables for the external demand for Egyptian grapes are: the amount of imports from the imported market (x1), available for consumption to the imported market (x2), the Egyptian export price per ton of grapes for the imported market (x3), prices for competing countries for Egyptian grapes within the imported market (x3), x4), (x5), the Egyptian production quantity (x6).

The best statistical images for each market have been chosen, which are consistent with the economic

logic. The following is a presentation of the most important economic factors affecting the determinants of external demand for Egyptian exports of grapes to the most important importing countries, represented by England, Holland, and Russia.

1- The England Market: By estimating many statistical models to study the most important factors affecting the determinants of external demand for Egyptian exports of grapes in the England market, and by using a matrix of correlation coefficients between the quantity of Egyptian grape exports in tones in the England market and the possible extraneous factors affecting that quantity during the average period (2008 -2018), the best of which is the double logarithmic model, which is explained by the following equation:

$$\text{Log}\hat{Y}_i = 12.70 - 2.92 \log x_{i1} + 0.49 \log X_{i2} + 0.92 \log x_{i3} - 1.16 \log x_{i4} - 0.98 \log x_{i5} + 0.54 \log x_{i6}$$
$$(-8.16)^{**} (9.36)^{**} \quad (4.25)^{**} \quad (-9.12)^{**} \quad (-4.64)^{**} 9.29^{**}$$
$$+ 12.11 \log x_{i7} - 15.07 \log x_{i8}$$
$$(7.54)^{**} \quad (-9.91)^{**}$$
$$F = 44.88^{**} \qquad R^2 = 0.99 \qquad R = 0.99$$

where:

$\hat{Y}_i$: Estimated quantity of Egyptian exports of grapes to the England market (thousand tons) per year i.

X_{i1}: Total amount of global imports of grapes by the England market (thousand tons) per year i.

X_{i2}: Availability for consumption of grapes within the England market (thousand tons) per year i.

X_{i3}: Export price of Netherlands grapes to the England market (US$ thousand/ ton) per year i.

X_{i4}: Quantity of Egyptian production of grapes (thousand tons) per year i.

X_{i5}: Export price of Egyptian grapes to the England market (US$ thousand/ ton) per year i.

X_{i6}: Export price of Spain grapes to the England market (US$ thousand/ ton) per year i.

X_{i7}: Export price of German grapes to the England market (US$ thousand/ ton) per year i.

It became clear that most of the independent factors under study have a positive relationship with the quantity of Egypt's exports of grapes to the England market, in addition to their statistical significance being proved at a significant level of 0.01. The results of the statistical analysis also indicate the significance of the model used, as the calculated value of (F) is greater than its tabular counterpart. While the value of the coefficient of determination (R2) indicates about 99% of the change in the quantity exported from Egyptian grapes to the England market due to the three factors mentioned above, and that about 1% is due to other factors. The price elasticity of the Egyptian export price of grapes to the England market during the study period (2008-2018) was estimated at (-0.98). The price elasticity of the Netherlands export price to the England market was estimated at 0.92, meaning a change of about 1% that will lead to a change in the same direction. The quantity of Egyptian exports of grapes in the England market is about 0.92, and the price elasticity of the Egyptian export price was estimated at about (0.98), which indicates any change in the Egyptian price of about 1% that will lead to a change in the opposite direction (inverse relationship) for the quantity of Egyptian exports of grapes to the market. The England is about 0.98%, and this is consistent with the statistical and economic logic, and the price elasticity of the Spanish export price reached about 0.54, and this means that any change in the

Spanish price by about 1% will lead to a change in the same direction for the amount of Egyptian exports of grapes to the England market by about 0.54%, and finally The German price elasticity was estimated at 12.11this means that any change in the German price by about 1% will lead to a change in the same direction for the amount of Egyptian exports of grapes to the England market by about 12.11%. It is evident from the foregoing that the policy of reducing the export price of Egyptian grapes to the England market will not be beneficial in increasing the quantities exported from grapes to the England market due to the lower price flexibility than the correct one, and from the above it is necessary to follow a policy based on concern for quality and the provision of appropriate specifications in this market and tastes Consumers are the most favorable and influential policy in this market.

2- The Netherlands Market:

Several models have been estimated to study the determinants of external demand for Egyptian exports of grapes to the Netherlands market, and by using a matrix of correlation coefficients between the quantity of Egyptian grape exports in tones in the Netherlands market and the extraneous factors likely to affect that quantity during the average period (2008-2018). The double logarithmic model, which is explained by the following equation:

$$\text{Log } \hat{Y}_i = 1.29 - 0.79 \log X_{i1} + 1.01 \log x_{i2} + 0.58 \log x_{i3} - 0.44 \log x_{i4}$$
$$(-7.44)^{**} \quad (2.16)^{**} \quad (1.56) \quad (-1.29)$$
$$F = 16.55^{**} \qquad R2 = 0.91 \qquad R = 0.95$$

where:

$\hat{Y}_i$: Estimated quantity of Egyptian exports of grapes to the Netherlands market (thousands of tons) per year i.

X_{i1}: Export price of Egyptian grapes to Netherlands market (US$ thousand/ ton) per year i.

X_{i2}: Export price of Spanish grapes to the Netherlands market (US$ thousand/ ton) per year i.

X_{i3}: Export price of grapes Italian to the Netherlands market (US$ thousand/ ton) per year i.

X_{i4}: Price of exporting German grapes to the Netherlands market (US$ thousand/ ton) per year i.

It turned out that most of the independent factors under study have a positive relationship with the amount of Egypt's exports of grapes to the Netherlands market, and the results of the statistical analysis indicate the significance of the model used, as it was found that the calculated value of (F) is greater than its tabular counterpart, as indicated by the model the negative impact of the export price The Egyptian grape price (xi1) and the positive effect of the price of exporting grapes from Spain to the Netherlands market (xi2) on the external demand for the quantity of Egyptian grapes exported to the Netherlands market, the positive effect of the price of Italian grapes (xi3), and the negative impact of Germany's price of grapes (xi4) on The external demand for the quantity of Egyptian grapes exported to the Netherlands market, as the statistical significance of these factors was confirmed, and the determination coefficient was estimated at about 91% of the change in the quantity of grapes exported to the Netherlands market due to these factors and about 9% due to other factors.

The flexibility of the Egyptian export price of grapes to the Netherlands market was estimated at (-0.79), which indicates the amount of Egyptian exports of grapes to the Netherlands market, meaning if there is a change of about 1%, it will lead to a change in the reverse direction of the quantity of Egyptian exports of grapes to the Netherlands market by about 0.79%. The elasticity of the price of exporting grapes from Spain to the Netherlands is about 1.01, which means that if a change of 1% occurs, it will lead to a change in the

same direction for the quantity of Egyptian exports of grapes to the Netherlands market by about 1.01%. The price elasticity of the export price of Italy was estimated at about 0.58, which indicates the quantity of Egyptian exports From grapes to the Netherlands market, that is, if there is a change of about 1%, it will lead to a change in the same direction for the quantity of Egyptian exports of grapes to the Netherlands market by about 0.58%.

The price elasticity of the export price of Germany was estimated at (-0.44), which indicates the quantity of Egyptian exports of grapes to the Netherlands market, that is, if there is a change of about 1%, it will lead to a change in the opposite direction of the quantity of Egyptian exports of grapes to the Netherlands market by about 0.44%. The price policy depends on the decrease in the export price per ton of Egyptian grapes to the Netherlands market, which will have an effective effect on increasing the amount of Egyptian exports to the Netherlands market.

3- The Russian Market: Through the estimation of many statistical models to study the most important factors affecting the determinants of external demand for Egyptian exports of grapes in the Russian market, and by using a matrix of correlation coefficients between the quantity of Egyptian grape exports in tons in the Russian market, and the extraneous factors likely to affect that quantity during the average period (2008-2018), the best of which was the double logarithmic model, which is illustrated by the following equation:

$$\text{Ln } \ddot{Y}_i = -4.13 + 2.38 \text{Ln } x_{i1} \, 1.19 + \text{Ln} x_{i2} - 1.09 \text{Ln } x_{i3} + 13.69 \text{ Ln } x_{i4} - 0.68 \text{ Ln } x_{i5}$$
$$(2.08)^{**} \; (1.32) \qquad (-0.74) \qquad (6.21)^{**} \; (-0.11)$$
$$F = 5.710^{**} \qquad R^2 = 0.85 \qquad R = 0.92$$

where:

$\hat{Y}_i$: Estimated quantity of Egyptian exports of grapes to the Russian market (thousand tons) per year i.

X_{i1}: Average per capita share of Russian grapes (US$ thousand) per year i.

X_{i2}: Total amount of the Russian market imports of grapes worldwide (thousand tons) per year i.

X_{i3}: Price of Egyptian export of grapes to the Russian market (US$ thousand/ton) per year i.

X_{i4}: Price of Chile export of grapes to the Russian market (US$ thousand/ton) per year i.

X_{i5}: Price of China export of grapes to the Russian market (US$ thousand/ton) per year i.

The results of the statistical analysis of the determinants of the Russian demand for Egyptian grapes indicate the significance of the model used, as the calculated value of (F) was greater than its tabular counterpart, and the negative impact of the Egyptian export price of grapes was revealed through the model and its significance was not proven (xi3), and the positive effect of the export price of grapes The Chilean to the Russian market (xi4), as well as the negative impact of the export price of Chinese grapes to the Russian market (xi5), on the external demand for the quantity exported from the Egyptian grapes to the Russian market, as the statistical significance of these factors was confirmed, and the determination factor was estimated to be about 85% of The change in the quantity of Egyptian grapes exported to the Russian market, as it is attributed to these previously mentioned factors, and about 15% is due to other factors.

The price elasticity of the export price of Egyptian grapes to Russia were estimated at (-1.09), meaning that if a change occurred by about 1%, it would lead to a change in the opposite direction of the quantity of Egyptian grapes exports to the Russian market by about 1.09%, and the price elasticity of the price of exporting Chilean grapes to Russia reached about 1.09%. (-13.69), that is, if a 1% change occurred, it would lead to a change in the reverse direction of the quantity of Egyptian grape exports to Russia by about 13.69%. The price elasticity of the export price of China was estimated at (-1.68), meaning that if a 1% change occurred, it would lead to a change in The trend reversed the amount of Egyptian exports of grapes to the Russian market by 0.68%.

It is evident from the above that following the price policy based on reducing the export price of Egyptian grapes to the Russian market will have an effective effect on increasing the amount of Egyptian exports to the Russian market.

The most important results of the research are as follows:

1- The total production, value and export price of Egyptian grapes has taken a statistically significant increasing general trend at a level of 1%, while the quantity of Egyptian grape exports has taken a general decreasing trend as an average for the period (2008-2018).

2- Egypt came in the thirteenth position among the most important grape-exporting countries in terms of quantity, and the tenth in terms of value, as an average for the period (2014-2018), as the quantity of its exports was estimated at a rate estimated at about 2.88% of the total amount of grape exports worldwide. While the value of its exports amounted to an estimated 2.89% of the total value of world exports of grapes as an average for the study period.

3- It was found that England is the largest importer of Egyptian grapes in the world in terms of the amount of exports as an average for the study period, reaching about 28.11% of the total imported quantity of Egyptian grapes. The Netherlands came in second place with a rate of about 131.33 thousand tons, and Russia came in third place with a rate of about 19.77% of the average quantity of Egyptian grape exports for the period (2014-2018) as an average for the study period (2014-2018).

4- The monthly exports of Egyptian grapes to the most important importing countries in the world in 2018, starting from May until November, and the quantity of exports of each month (May, June, July) represents the largest exported quantity of Egyptian grapes to global markets each year.

5- Egypt is the largest exporter of grapes for England, the Netherlands, and Russia for the period May, June, and July 2018.

6- The market share and the market penetration rate for Egyptian grape exports came in second place for the market share and second for the market penetration rate in the England market, while it came in first place for both the market share and the market penetration rate in the Netherlands market, while it came in the center The second place for the market share and the third place for the market penetration rate in the Russian market.

7- The most important determinant of the external demand for Egyptian exports of grapes to the England market during the period (2008-2018) is that the total amount of imports from the England market for grapes (x1), available for consumption ((xi2), the price of Netherlands exports (xi3), the amount of Egyptian production ((xi4), the export price of Egyptian grapes (xi5), the export price of Spanish grapes (xi6), the export price of German grapes (xi7), the import price of the England market (xi8).

8- The most important factors affecting external demand in the Netherlands market are the export price of Egyptian grapes to the Netherlands market (xi1), the export price of Spanish grapes (xi2), the price of exporting grapes for Italy (xi3), and the price of exporting grapes from Germany (xi4).

9- The most important factors affecting the external demand for the quantity of Egyptian grapes exported to the Russian market are the average per capita (xi1), the amount of imports from the England market (xi2), the export price of Egyptian grapes (xi3), and the export price of Chile (xi4). And China's export price (xi5).

Recommends:

1- The existence of strategic planning for the production of grapes and work to increase the development of its exports by implementing a new system to improve product quality and maintain the technical requirements for export, in order to ensure an increase in grape exports to all global markets in accordance with international standards for the quality of Egyptian grape exports, with an interest in opening promising markets such as the market China is the main market for exporting Egyptian grapes.

2- Providing an information base on all major markets to serve the production and marketing sector and the environmental conditions in those markets that are compatible with consumers' tastes.

3- Working on following a policy based on concern for quality and providing the standard specifications appropriate to the market and consumers 'tastes, and is considered the appropriate policy in the England and Netherlands market that has the most influence on increasing the exported quantities of grapes due to the low elasticity of demand for grapes, while following the policy of reducing the export price of grapes. The Egyptian to the Russian market will have an effective effect on increasing Egyptian exports of grapes to this market due to the high elasticity of demand for grapes.

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Appendices

Appendix (1): The most important factors affecting the demand in the England market for Egyptian exports of grapes during the period (2008-2018).

Years	The amount of Egypt exports to England (tons)	The amount of England imports from the world (tons)	Available from consumption in England (tons)	The price of the exports to England (US$ thousand/ ton)	Egypt production of grapes (tons)	The price of Egypt exports to England (US$ thousand/ ton)	The price of Spain exports to England (US$ thousand/ ton)	The price of Germany exports to England (US$ thousand/ ton)	The price of England imports from the world (US$ thousand/ ton)
2008	18.46	274.94	264.89	1.96	1531.42	2.05	2.84	1.51	2.51
2009	20.49	244.59	238.48	1.63	1370.24	2.71	2.54	0.99	2.30
2010	19.07	244.96	239.14	1.89	1360.25	2.78	2.44	1.06	2.41
2011	18.94	234.23	229.57	2.16	1320.80	3.32	2.92	1.35	2.74
2012	22.76	241.87	236.89	2.73	1378.82	3.00	2.75	1.32	2.61
2013	19.33	250.07	241.47	2.58	1434.67	2.59	2.67	1.61	2.66
2014	20.90	257.90	252.69	2.69	1596.17	2.43	3.09	2.01	2.89
2015	19.05	257.74	253.06	2.40	1686.71	2.86	2.70	2.03	2.61
2016	23.55	275.33	269.78	2.36	1691.19	2.40	2.60	2.45	2.44
2017	23.03	271.34	265.32	1.95	1734.42	2.19	2.56	2.54	2.46
2018	23.66	272.71	266.75	2.00	1759.47	2.23	2.49	3.33	2.52

Source: Collected and calculated from: UN COMTRADE and ITC statistics. & www.Faostate.com.

Appendix (2): The most important factors affecting the demand in the Netherlands market for Egyptian exports of grapes during the period (2018-2018).

Years	The amount of Egypt exports to the Netherlands (US$ thousand/ ton)	The price of Egypt exports to the Netherlands (US$ thousand/ ton)	The price of Spain exports to the Netherlands (US$ thousand/ ton)	The price of Italy exports to the Netherlands (US$ thousand/ ton)	The price of Germany exports to the Netherlands (US$ thousand/ ton)
2008	30.42	0.77	1.88	1.65	2.46
2009	28.62	1.83	3.11	0.93	1.87
2010	15.75	3.11	1.65	1.70	1.85
2011	100.55	0.34	1.92	1.79	2.59
2012	20.82	1.93	2.12	1.74	2.24
2013	27.00	1.46	2.09	1.71	2.81
2014	22.60	2.54	2.36	1.92	2.48
2015	28.39	1.59	2.18	1.67	1.87
2016	24.95	1.89	2.03	1.68	1.87
2017	27.03	2.19	2.18	1.92	1.51
2018	28.35	1.95	2.34	1.83	2.23

Source: Collected and calculated from: UN COMTRADE and ITC statistics. & www.Faostate.com.

Appendix (3): The most important factors affecting the demand in the Russian market for Egyptian exports of grapes during the period (2008-2018).

Years	The amount of Egypt exports of grapes to Russia (1000 tons)	Russia GDP per capita (1000 US$)	The amount of Russia imports of (1000 tons)	The price of Egypt exports of grapes to Russia (US$ thousand / ton)	The price of Chile exports of grapes to Russia (US$ thousand/ ton)	The price of China exports of grapes to Russia (US$ thousand/ ton)
2008	3.84	11.72	406.76	1.37	1.42	1.36
2009	4.96	8.63	375.01	1.36	1.37	1.36
2010	3.03	10.76	408.71	1.62	1.40	1.36
2011	6.20	14.32	400.00	1.52	1.49	1.33
2012	6.35	15.41	379.32	1.82	1.59	1.37
2013	5.29	16.00	358.82	1.63	1.59	1.41
2014	6.47	14.35	328.28	1.57	1.59	1.41
2015	9.93	9.49	249.08	1.83	1.59	1.40
2016	9.73	8.93	193.16	1.72	1.56	1.41
2017	16.00	10.98	382.09	1.73	1.59	1.49
2018	11.02	11.53	295.68	1.72	1.56	1.42

Source: Collected and calculated from: UN COMTRADE and ITC statistics. & www.Faostate.com.

11/9/2020