



## An economic study for the Impact of COVID 19 on the marketing for some horticultural crops in Egypt

Dr. Hisham Ahmed Abdel Rahim and Dr. Monera Galal El Naggar

Senior Researcher Agricultural Economics Research Institute - Agricultural Research Center- Egypt  
[Dr\\_Hesham76@yahoo.com](mailto:Dr_Hesham76@yahoo.com), [mony.galal@hotmail.com](mailto:mony.galal@hotmail.com)

**Abstract:** The research aims to identify effects of the spread of Covid-19 on the marketing activity of the wholesaler and retailer for vegetable and fruit crops. The most important results for vegetables are that the demand was increased for both potatoes and onions; they were about 11% for each. For the types of fruits that were in high demand, they were lemons, oranges and guavas, where the demand for them increased by 49%, 42%, 13%, respectively. The vegetables, whose wholesale prices decreased, were turnips and carrots, tomatoes, and secondary vegetables such as broccoli by about 35%, 32%, and 20%, respectively. Types of vegetables, whose prices have increased, were potatoes, tomatoes and onions, at a rate of 13% for each. For types of fruits the prices of which rose were lemons, oranges and guavas, as their prices increased by 37%, 30%, 30%, respectively. It showed that the most important problems were confusion of working movement in the market on the first day of the curfew, which represented about 67% of the opinions of wholesalers. Related to fruit traders there were lack of permits for the movement of buyers, farmers and retailers during the curfew period, which represents about 80% of the opinions of wholesalers. The results showed that 27% of the retailers of vegetables think an increasing in demand for some types of vegetables, while 53% of decreased. It was found that the most important problems they faced were closing shops at the time of the crisis, it was about 60% of the opinions. The study suggests it shouldn't stop the economic activity represents about 47%, Providing soft loans to merchants in the event of any measures being applied in the future by 25% from their opinions.

[Hisham Ahmed Abdel Rahim and Monera Galal El Naggar. **An economic study for the Impact of COVID 19 on the marketing for some horticultural crops in Egypt.** World Rural Observ 2022;14(1):91-104]. ISSN: 1944-6543 (Print); ISSN: 1944-6551 (Online). <http://www.sciencepub.net/rural>. 9. doi:[10.7537/marswro140122.09](https://doi.org/10.7537/marswro140122.09).

**Keywords:** Covid- 19, vegetables, Fruits, impact, price, wholesaler, retail

### Introduction:

The world witnessed the emergence and spread of the COVID 19 virus in all over the world in 2020. Egyptian government has made many important decisions in order to control the spread of this virus. The most important of these decisions is to impose a curfew during certain hours of the day. This has caused multiple effects on the marketing of horticultural and economic activity in Egypt crops .

### Research Problem

As the result to the Egyptian Government imposing precautionary decisions to prevent the spread of COVID 19 in 2020, some expected economic effects appeared either positive or negative on the marketing activity of some fruit and vegetable crops.

### Objective of search

The research aims to identify the negative and positive effects of the spread of Covid-19 on the marketing activity of the wholesaler and retailer for vegetable and fruit crops.

### Methodology and data sources

To reach the goal of the research, the most appropriate research methods were used to analyze the effects of the spread of the Corona virus on the distinction between two periods: The first period was from March to May in 2020, when this period witnessed the peak of the virus spread. Including vegetable and fruit stores and markets during the day. The second period started from June 2020, after the government had canceled the curfew and opened economic activity again.

A study sample was selected from wholesalers in Oboor market. It is one of the most important wholesale markets in Egypt. The study sample was selected (27) wholesale traders, including (12) vegetable traders, and (15) fruit traders, in addition to conduct an interview with those responsible for managing the wholesale market to identify the administrative procedures that took place in the market after the spread of the Corona virus and the government made special decisions to control the virus, where the most important decisions was the imposition of a curfew.

A study sample was selected from retailers in the Mostorod market as one of the major markets in Cairo Governorate. The study sample included the selection of (27) retail traders, (15) vegetable dealers, and (12) fruit traders.

#### Administrative procedures in the Oboor market after the spread of the Corona virus:

Oboor market is considered one of the most important wholesale markets for vegetables and fruits in Egypt, and due to the different periods of holding auctions for vegetables and fruits. The vegetable auction is held in the market between 12 to 8 pm, while the fruit auction is held between 7 to 11 pm where the necessity of opening the wholesale market opening 24 hours / day. Therefore, wholesale market

was excluded from the decision of the Prime Minister regarding the closure and imposition of a curfew which was issued during the month of March 2020 and the wholesale market continued to operate during this period over a period of time.

#### Results:

##### First: Analysis of the marketing activity of wholesalers for vegetables and fruits wholesale market:

Table (1) shows the negative effects of the spread of the Corona virus and the imposition of a curfew during the period from March to May 2020 on the marketing activity of wholesalers for vegetables and fruits in the wholesale market.

**Table (1) The negative effects of the spread of the Corona virus and the imposition of a curfew on the marketing activity of the wholesaler in Oboor market during the period(March to May) 2020**

Activity	statement	The negative effects of the spread of the Corona virus on the wholesaler	opinions %	impact ratio %
vegetable marketing		Low transaction quantities for wholesaler	67	28
		Reduced quantities of vegetables received by the merchant from farmers	17	10
		Decrease in the number of retailers buying from the wholesalers market	33	20
		Wholesaler profits decline	50	27
		The quantities of vegetables that have not been marketed	17	25
		Decreased number of agency workers	17	16
		Increase the wastage of vegetables	33	15
		Retailers delayed repaying sales debts to wholesalers	50	--
		Reduce the wholesaler's commission rate	33	38
		Selling vegetables to civil society organizations at cost or donating them because they are not able to be marketed	33	--
		Debt accumulation on wholesalers	17	--
Fruit Marketing		Low transaction quantities for wholesaler	93	39
		Decreased quantities of fruit received by the merchant from farmers	40	28
		Decrease in the number of retailers buying from the Oboor market	67	29
		Wholesaler profits decline	93	29
		The presence of quantities of fruits that weren't marketed	67	29
		Decreased number of agency workers	53	24
		Increase the wastage of fruit	80	24
		Late retailers repay off their debts to wholesalers	13	-----
		Decrease the wholesaler's commission rate	13	37
		Debt accumulation on wholesalers	27	----

Source : Traders' opinion forms of the wholesalers in the wholesale market.

The results showed that the most important negative effects on wholesalers of vegetables during this period were the decrease in the amount of dealing in vegetables to the wholesaler according to the opinions of about 67% of the wholesalers, followed by the decrease in the profits of the wholesaler of vegetables, and the delay of the retailer in repaying the sale debts to the wholesaler, which represents 50% of the opinions of the wholesalers for each.

The same table showed that the largest negative effects on the wholesaler of vegetables during the curfew period from March to May 2020 were represented in reducing the commission rate for the wholesaler which was about 38%, low transaction quantities for wholesaler was about 28, decrease in the profits of the wholesaler by about 27%, the quantities weren't sold of vegetables amounted to about 25% of the total quantities.

Regarding to the impact of the spread of the corona virus, the results showed that the most important negative effects that fruit wholesalers faced during this period were decreasing in the quantity of dealing in fruit for the wholesaler and the decrease in the profits of the wholesaler, it represented about 93% for each, then Increasing the wastage of fruit represented 80% of the opinions of fruit traders .

It showed that the largest negative effects on the fruit wholesaler which were decrease in the quantity of fruit dealings for the wholesaler, as the average percentage of decrease in the quantities dealt by the merchant was about 39%, the commission rate for the fruit wholesaler was decreased by 37%, the number of retailers was decreased, the merchant's profits

were decreased, and the quantities which weren't sold of fruit were about 29%.

#### **The impact of the spread of the Corona virus on increasing or decreasing the demand for vegetables and fruits:**

Table (2) shows the opinions of the wholesaler of vegetables and fruits on the impact of the spread of the Corona virus on increasing or decreasing the demand for vegetables and fruits. Relating to the wholesalers of vegetables, the results of the study sample showed that 17% of the wholesalers of vegetables told that an increase in demand for some types of vegetables, while 50% of vegetable traders told decrease the demand for some types of vegetables. The demand for both potatoes and onions was increased about 11% for each . The kind of vegetables whose demand has been decreased as a result of the spread of the Corona virus, are tomatoes, turnips and carrots, for each of them about 30% while secondary vegetables such as broccoli, red cabbage and others, with a decrease of about 20% .

Regarding to fruits, the results of the study sample indicated that 93% of fruit wholesalers think that there were increase in demand for some types of fruit with the spread of the Corona virus, while 67% of fruit traders showed a decrease in demand for some types of fruits . For the types of fruits that were in high demand with the spread of the Corona virus, they were lemons, oranges and guavas , where the demand for them increased by 49%, 42%, 13%, respectively. For the types of fruits whose demand was decreased, the most important were dry dates, mango, and cantaloupe , with a decrease in demand for each of them 42% ,36% ,36% respectively .

Table (2) The opinions of wholesalers on the impact of the spread of the Corona virus on increasing or decreasing the demand for different types of vegetables and fruits during the period(March to May)2020.

Statement marketing Activity	Demand	the opinions of the study sample%	types of vegetables or fruit	demand change rate%
vegetable	Increasing demand for some types of vegetables	17	potato	11
			onions	11
	Decreasing demand for some types of vegetables	50	tomatoes	30
			turnip and carrots	30
			Secondary vegetables such as broccoli and red cabbage	20
Fruit	Increasing demand for some types of fruit	93	orange	42
			lemon	49
			guava	13
	Decreasing demand for some types of fruit	67	mango	36
			dry dates	42
			cantaloupe	36

Source : Traders' opinion forms of the wholesalers in the wholesale market.

**The opinions of wholesalers about the reasons for the change in demand for vegetables and fruits with the spread of the Corona virus:**

Table (3) shows the relative importance of the opinions of the wholesaler in the Oboor market about the reasons for the increase or decrease in the demand for some types of vegetables and fruits during the spread of the Corona virus. Regarding to vegetable crops, the results showed that all traders in the study sample think that the reasons for the increased demand for some Types of vegetables with the spread of the Corona virus due to the opening of the Oboor

market for 24 hours / day which was 100% their opinions. While the opinions of wholesalers about the reasons for the low demand for some types of vegetables the result showed that the most important reasons were closing a large number of restaurants and reducing the work of other restaurants by 75%, closing time for retailers to reach the market wholesalers opinions were about 50%. Closing a large number of restaurants and reducing the work of the rest of restaurants was about 25% according to their opinions.

Table (3) The relative importance of the wholesaler's opinions on the reasons for the increase or decrease in demand for certain types of vegetables and fruits during the period (March to May)2020.

Statement Activity	Demand	The wholesaler's opinions on the reasons for the change in demand	wholesaler opinions%
Vegetable marketing	Increasing demand for certain types of vegetables	The Oboor market is opening 24 hours a day and sets dates for the work of other markets	100
	Decreased demand for certain types of vegetables	Determine specific dates for retailers to reach the market	50
		Closing a large number of restaurants and reducing the work of the rest of the restaurants	75
		Closing a large number of shops selling pickles and reducing the activity of the rest of the shops	25
	The number of tourists in the country decreased with the spread of the virus	25	
Fruit marketing	Increased demand for certain types of fruit	Increasing demand for lemons and oranges with the spread of the virus due to the importance of products in raising immunity	67
	Decreased demand for certain types of fruit	Closing some juice stores and reducing activity	13
		Stopping the tables of Al-Rahman and closing mosques during the month of Ramadan ( dry dates)	26
		Reducing retail business hours as a result of the imposition of curfews	40

Source :Traders' opinion forms of the wholesalers in the wholesale market.

Regarding to fruit crops, the results showed that 67% of the opinions of traders believed that the reasons for increasing in demand for some types of fruits are due to the increase in demand for citrus and lemons with the spread of Corona.

Regarding to the opinions of wholesalers in the wholesalers market in the reasons for the decrease in demand for some types of fruits as a result of the spread of the Corona virus. The most important reasons were reducing the working hours of

retailers by 40% according to the opinions of wholesalers, followed by stopping the tables of the AL Rahman in Ramadan, and then the impact on the demand for dates by 26% from their opinions.

**The impact of the spread of the Corona virus on the prices of the most important types of vegetables and fruits:**

Table (4) shows the opinions of wholesalers on the impact of the spread of the Corona virus and the

imposition of a curfew during the period from the beginning of March to the end of May 2020 on the prices of the most important types of vegetables and fruits. The results showed that 50% of the vegetable traders in the study sample see a decrease in selling prices of some types of vegetables, while 17% of the vegetable dealers see an increase in wholesale prices for some types of vegetables with the spread of the Corona virus. As for the vegetables whose wholesale prices decreased, they were turnips and carrots, tomatoes, and secondary vegetables such as broccoli by about 35%, 32% and 20% respectively. As for the types of vegetables whose prices have increased as a result of the spread of the Corona virus, they were potatoes, tomatoes and onions, at a rate of 13% for each.

Regarding to the fruits, the results indicated that 80% of fruit wholesalers think that an increase in the prices of some types of fruit with the spread of the Corona virus, while 50% of fruit traders think a decrease in the prices of some types of fruits. For types of fruits whose prices raised with the spread of the Corona virus were lemons, oranges and guavas, as their prices increased by 37%, 30%, 30%, respectively. The types of fruits whose prices

decreased were dry dates, mangoes, and cantaloupes with a decrease in prices for each of them, about 26%, 21% and 21%, respectively.

#### **The most important problems facing wholesalers in the Oboor market with the spread of the Corona virus:**

Table (5) shows the opinions of wholesalers in the wholesalers market regarding the most important problems they faced during the crisis of the spread of the Corona virus. For vegetable traders, it showed that the most important problems were the confusion of working movement in the market on the first day of the curfew, which represents about 67% of the opinions of wholesalers, followed by the problem of vegetables reaching the wholesalers market at specific times outside the curfew times, and the lack of permission for farmers and buyers to access the wholesalers market during the period was about 17% of each. As for the most important problems that faced the wholesaler of vegetables after cancellation of the curfew the inability of wholesalers to repay the accumulated debts was for 33% of their opinions, followed by the problem of the retailer's inability to repay the debts to the wholesalers by 17% from their opinions.

Table (4) The opinions of wholesalers about the spread of the Corona virus and the impact of the imposition of a curfew on the prices of the most important types of vegetables and fruits during the period(March to May)2020.

Statement Activity	Price state	the opinions of the study sample%	types of vegetables and fruit	price change rate%
vegetable marketing	Vegetable prices drop	50	tomatoes	32
			turnip and carrots	35
			Secondary vegetables such as red cabbage and others	20
	Vegetable price raise	17	potatoes	13
			tomatoes	13
			onions	13
Fruit Marketing	Fruit price raise	80	orange	30
			lemon	37
			guava	30
	Fruit price drop	50	mango	21
			dry dates	26
			cantaloupe	21

**Source :**Traders' opinion forms of the wholesalers in the wholesale market.

Regarding to fruit traders, it was found that the most important problems they faced during the period of imposing the curfew was lack of permits for the movement of buyers, farmers and retailers during the curfew period, which represented 80% of the

opinions of wholesalers, moreover the problem of reaching the fruit wholesalers to the market at specific times outside the curfew dates ,the confusion of the work movement on the first days of imposing the curfew and wholesaler costs rise as a result of

having to store unsold fruit in refrigerators which represented about 27% for each. As for the most important problems that faced the fruit wholesaler after the curfew was canceled (at the end of May 2020), the wholesaler was unable to repay debts with

67% of the opinions of fruit traders in the market, then the retailer's inability to repay the debts to the wholesaler which represents about 27% of the opinions of the wholesaler of fruits in the wholesalers market.

Table (5): Analysis of the wholesaler's opinions on the most important problems facing traders before (March to May) and after (End May – now) imposing a curfew as a result of the spread of the Corona virus in 2020

Statement merchant Activity	Period	The most important problems from the point of view of the wholesaler	Relative frequency of opinions%
vegetable	The first period (March to May)	Confusion in the work movement in the market during the first days of imposing the curfew	67
		The arrival of vegetables to the market at certain times outside the pandemic	17
		Lack of permits for the movement of buyers, farmers and retailers during the curfew period	17
	The second period at the end of May until now	The inability of retailers to repay debts to the wholesaler	17
		The inability of wholesalers to repay the accumulated debts	33
fruit	The first period (March to May)	Confusion in the work movement in the market during the first days of imposing the curfew	27
		The arrival of vegetables to the market at certain times outside the ban	27
		Lack of permits for the movement of buyers, farmers and retailers during the curfew period	80
		Wholesaler costs rise as a result of having to store unsold fruit in refrigerators	27
	The second period at the end of May until now	The inability of retailers to pay debts to the wholesaler	27
		The inability of wholesalers to pay the accumulated debts	67

Source : Traders' opinion forms of the wholesalers in the wholesale market.

#### Suggestions of wholesalers in the Oboor market:

Table (6) shows the relative importance of the wholesalers' suggestions in the procedures followed in the event of the emergence of other waves of the Corona virus and the imposition of a curfew. For vegetable traders, the most important Suggestions are to work on granting permits to farmers, buyers and retailers, which represents about 67% of the opinions of wholesalers of vegetables. Continuing applying of precautionary measures in the Oboor market at a rate of 58%, then the continuation of the Oboor market's work to 24 hours a day, working to organize markets and preventing crowding, establishing a crisis management committee in the Oboor market and granting wholesalers loans with credit facilities, representing about 50%, 33 %, 17%, 17% and 17% of the opinions of wholesalers of vegetables, respectively.

For fruit traders, the most important suggestions were to work to grant permits to farmers, buyers and retailers, representing about 73% of the opinions of fruit wholesalers, then the continuation of the Oboor market work to 24 hours a day at 60% of the wholesaler's opinions, then all of the continued applying of precautionary measures in the Oboor market and granting wholesalers in the Oboor market loans with credit facilities, working to sterilize the market on an ongoing basis, working to organize markets and prevent crowding represents about 40%, 40%, 27%, and 13% of the opinions of fruit wholesalers, respectively.

#### Second: Analysis of retailers for vegetables and fruits:

Table (7) shows the negative effects of the spread of the Corona virus and the imposition of a

curfew, during the period from March to May 2020 on the marketing activity of vegetables and fruits retailers. It was found that there were some quantities of vegetables that weren't marketed, it represented about 75% of retailers opinions. the decrease in the amount of sales, the decrease in the amount of supplied vegetables to the retailer, the decrease in the profits of the retailer, and the increase in the percentage of losses of vegetables represents 71% of the opinions of retailers of vegetables for each of them. Decreasing in the number of buyers, reducing working hours for retailers, high transportation cost for vegetables, The inability to obtain some vegetables due to the difficulty of accessed the wholesale markets, as these opinions represented about 64%, 64%, 50%, 36% and 31%, respectively.

The negative impact were decrease in the quantity of vegetables arrived to the retailer, and some quantities of vegetables that weren't marketed by 41%. Decrease in the number of buyers by 40%.

Decrease in sales quantities for the retailer by 38%. This is followed by the decrease in the profits of retailers, the decrease in the number of workers in the store, the increase in transportation costs, and the increase in the percentage of wasted vegetables by about 35%, 32%, 31%, 18% for each, respectively.

Regarding to fruits, the most important of these negative effects were represented in reducing sales quantity for the retailer, reduce retailer working hours, retailer profits decreased, increasing the wastage of fruit by 100% of the opinions of the retailers for each of them. This was followed by the decrease in the quantity of fruit supplied to the retailer, the decrease in the number of buyers, The existence of quantities of fruit that weren't marketed, the high transportation cost, the decrease in the number of workers in the store, the inability to obtain some fruits due to the difficulty of access wholesale markets where these opinions represented about 92%, 83%, 75%, 75%, 42%, 33%, respectively.

Table (6): The relative importance of the wholesalers' suggestions in the procedures followed in the event of the emergence of other waves of the Corona virus in 2020

Statement	suggestions	Opinion %
vegetable	The Oboor market continues to operate 24 hours a day in the event of a future curfew	50
	Continuing to apply precautionary measures to prevent the spread of the virus in the market	58
	Work to sterilize the market periodically and continuously	33
	Granting permits for the movement of farmers, buyers and retailers to at any time in the event of a curfew the Oboor market	67
	Organizing markets and preventing any crowding in wholesale markets	17
	Granting merchants credit facilities by granting an appropriate period to repay loans and providing credit facilities	17
	Work to establish a crisis management committee in the Oboor market, in which traders are represented in the market	17
fruit	The Oboor market continues to operate 24 hours a day in the event of a future curfew	60
	Continuing to apply precautionary measures to prevent the spread of the virus in the market	40
	Work to sterilize the market periodically and continuously	27
	Granting permits for the movement of farmers, buyers and retailers to at any time in the event of a curfew the Oboor market	73
	Organizing markets and preventing any crowding in wholesale markets	13
	Granting merchants credit facilities by granting an appropriate period to repay loans and providing credit facilities	40

Source :Traders' opinion forms of the wholesalers in the wholesale market.

The percentage of negative effects on the fruit retailer was represented by the decreasing in the

quantity of fruit received by the retailer, it represented about 45%. Reducing in sales quantities

for the retailer, it was about 44%. The number of fruit buyers from the retailer decreased by about 39%. Lots of quantities of fruit that weren't marketed reached about 36%. The number of workers decreased by 34%, transportation costs for the retailer increased by about 30%. The results also showed a decrease in the retailer's profits by about 29%.

#### The different sources of obtaining vegetables and fruits during the imposition of the curfews:

Table (8) showed the opinions of the retailers on the different sources of obtaining vegetables and fruits during the imposition of the curfew. Related to

the vegetable retailers about 58% of them indicated that they didn't change the sources of obtaining vegetables after imposing the curfew, while 42% of them told that the spread of the Corona virus had an impact on changing the retailer's purchasing sources for vegetables .

Regarding to fruit retailer about 67% of them indicated that they didn't change the sources of obtaining vegetables after imposing the curfew, while 33% of retailers believed that the spread of the Corona virus had an impact on changing the sources of purchasing vegetables by the retailer.

Table (7) : The negative effects of the spread of the Corona virus and the imposition of a curfew on the marketing activity of the retailer during the period (March to May) 2020

Statement	negative effects	the opinions of the study sample %	Average Impact Ratio%
Traders Activity	Reducing sales quantity for the retailer	71	38
	Reducing quantities of vegetables received by the retailer	71	41
	Low number of buyers	64	40
	Reduce retailer working hours	64	----
	Retailer Profits Decreased	71	35
	quantities of vegetables weren't marketed	75	41
	Decreased number of workers in the shop	36	32
	Increasing the wastage of vegetables	71	18
	High transportation costs	50	31
	The inability to obtain some vegetables due to the difficulty of accessing the wholesale markets	31	----
Vegetable Marketing	Reducing sales quantity for the retailer	100	44
	Reducing quantities of fruit received by the retailer	92	45
	Low number of buyers	83	39
	Reduce retailer working hours	100	----
	Retailer Profits Decreased	100	29
	quantities of fruits weren't marketed	75	36
	Decreasing number of workers in the shop	42	34
	Increasing the wastage of fruit	100	18
	High transportation costs	75	30
	The inability to obtain some fruits due to the difficulty of accessing wholesale markets	33	----
Fruit Marketing	Reducing sales quantity for the retailer	100	44
	Reducing quantities of fruit received by the retailer	92	45
	Low number of buyers	83	39
	Reduce retailer working hours	100	----
	Retailer Profits Decreased	100	29
	quantities of fruits weren't marketed	75	36
	Decreasing number of workers in the shop	42	34
	Increasing the wastage of fruit	100	18
	High transportation costs	75	30
	The inability to obtain some fruits due to the difficulty of accessing wholesale markets	33	----

Source : Traders' opinion forms in the retail market.



Table (8) retailers' opinions of the different sources of obtaining vegetables and fruits during the imposition of the curfew during the period (March to May)2020.

Marketing Activity	Impacts of the pandemic on the change of source	%the opinions
Vegetable	The source for the vegetables has been changed	42
	The source hasn't been changed	58
Fruit	The source has been changed to get the fruit	33
	The source hasn't been changed	67

**Source :** Traders' opinions form in the retail market.

#### Sources of retailer obtaining vegetables during the Corona crisis:

Table (9) showed the impact of the spread of the Corona virus and the imposition of a curfew during the period from March to May 2020 on the retailer's sources of vegetables and fruits .It was found that the most important sources for the retailer to obtain vegetables during the period before the imposition of the curfew was through purchase from wholesale markets, represented about 81% of the total purchases of the retailer, followed by purchasing directly from

farmers, representing about 19% of the total purchases, but during the spread of the Corona virus and the imposition of the curfews, buying from the wholesale market was the most important source for the retailer to obtain his needs of vegetables at a rate less than before the spread of the Corona virus, where the percentage amounted to about 58%, followed by purchase from farmers directly by 30%, and finally buying through local traders (suppliers) at a rate of about 12% .

Table (9) Sources of retailer obtaining vegetables and fruits during the period (March to May)2020

Merchant Activity	Source	Purchase ratio	
		normal conditions	curfews
vegetable	farms	19	30
	wholesale market	81	58
	local dealer (supplier)	0	12
fruit	farms	25	42
	wholesale market	67	42
	local dealer(supplier)	0	8
	Retailer's farm	8	8

**Source :** Traders' opinions forms in the retail market.

Regarding to fruit crops, the most important sources of the retailer's access to fruits during the period before curfew was buying from wholesale markets, representing about 67% of the total purchases of the retailer, followed by purchase directly from farmers, which represents about 25% of the total purchases of the retailer, and finally obtaining the fruit from a farm belonging to the wholesaler, which represents about 8% of the total quantities. During the spread of the Corona virus and

curfew (the period from March to May 2020), it was Purchasing from wholesale markets was the most important source for the retailer to obtain his needs from vegetables ,but at a rate less than before the spread of the Corona virus, where the percentage reached about 42%, followed by buying from farmers directly at 42% and then each of the purchase through local traders ( suppliers), and a farm affiliated with the wholesaler at a rate of about 8% each.

### The impact of the spread of the Corona virus on the demand for vegetables and fruits :

Table (10) showed the opinions of the retailers of vegetables and fruits on the impact of the spread of the Corona virus on increasing or decreasing the demand for vegetables and fruits .The results showed that 27% of the retailers of vegetables think an increasing in demand for some types of vegetables, while 53% of decrease in demand for some types of vegetables .The demand for which was increased with the spread of the Corona virus was potatoes, onions and garlic by about 13%, 12%, 12% respectively . The types of vegetables, whose demand had decreased as a result of the spread of the Corona virus, were leaves to about 33%, cucumbers by 27%, for eggplant, peppers and squash were 16%, 16%, and 15%, respectively.

Regarding to fruits, the results of the study sample indicate that 75% of fruit retailers think that there was an increase in demand for some types of fruit during the period from (March to May 2020), while 67% of fruit retailers think that decreasing in demand for some types of fruits, they were lemons, oranges and guavas , where the demand for them increased by 58%, 21%, 8%, respectively . The types of fruits that decreased the demand as a result of the

spread of the Corona virus were cantaloupe and mango, with a decrease in demand for each of them about 20%, 19% , respectively.

### The impact of the spread of the Corona virus on retail prices of the most important types of vegetables and fruits:

Table (11) shows the opinions of retailers on the impact of the spread of the Corona virus and the curfew during the period from the beginning of March to the end of May 2020 on the prices of the most important types of vegetables and fruits.

Regarding to vegetable crops, it was found that 60% from the traders' opinion in the study sample indicated that there was an increase in the selling prices of some types of vegetables while 53% of the opinions of vegetable traders decreased retail prices for some types of vegetables during the spread of the Corona virus. Onions, potatoes and garlic to about 20%, 14%, 10%, respectively. vegetables whose prices had decreased as a result of the spread of the Corona virus, according to the opinions of retailers in the study sample they were pepper ,squash ,Eggplant, cucumber and leaves 12%, 12%, 12%,12%, 16% , respectively.

Table (10) the opinions of retailers about the impact of the spread of the Corona virus on increasing or decreasing the demand for different types of vegetables and fruits during the period (March to May)2020.

Statement Activity	Demand state	opinions of the study sample%	types of vegetables	demand change rate %
Vegetable Marketing	Increasing demand for certain types of vegetables	27	Onions	12
			Potatoes	13
			garlic	12
	Decreasing demand for certain types of vegetables	53	pepper	16
			squash	15
			Eggplant	16
			cucumbers	27
Fruit Marketing	Increasing demand for certain types of fruit	75	leaves	33
			orange	21
			lemon	58
	Decreasing demand for certain types of fruit	67	guava	8
			cantaloupe	20
			mango	19

Source :Traders' opinion forms in the retail market.

Table (11): The opinions of retailers about the impact of the spread of the Corona virus and the imposition of a curfew on the prices of the most important types of vegetables and fruits during the period (March to May) 2020.

Statement marketing Activity	Price state	opinions of the study sample %	types of vegetables and fruit	price change rate %
vegetable	Vegetable price raise	60	onions	20
			potato	14
			Garlic	10
	Vegetable prices drop	53	pepper	12
			squash	12
			Eggplant	12
			cucumber	12
Fruit	Fruit price raise	100	leaves	16
			orange	19
			lemon	58
	Fruit price drop	50	guava	6
			cantaloupe	11
			mango	10

Source : Traders' opinions forms in the retail market.

Regarding to fruits, the results of the study sample indicated that 100% of fruit retailers think that an increase in the prices of some types of fruit with the spread of the Corona virus, while 50% of fruit traders saw a decrease in the prices of some types of fruits. The most important types whose price increased were lemon, orange and guava, as their prices increased by 58%, 19%, 6%, respectively. The types of fruits, whose prices decreased, were cantaloupe and mango, with a decrease in prices for each of about 11%, 10 % respectively.

#### The most important problems facing retailers with the spread of the Corona virus:

Table(12) showed the opinions of retailers about the most important problems they faced during the crisis of the spread of the Corona virus. For vegetable traders it was found that the most important problems they faced during the period of imposing the curfew were closing shops at the time of the pandemic, This represents about 60% of the opinions of vegetable retailers, followed by the problem of high transportation cost, low sales quantity, high vegetable losses, high prices of services and the inability of traders to pay rent, representing about 47%, 40%, 27% , 27%, 13%, respectively.

The most important problems that faced the vegetable retailer after the curfew was canceled at the end of May 2020 were the debts accumulated on the retailer with 33% of opinions of vegetable retailers in the market, followed by the Continuing recession of sales and purchasing power , Decreasing demand for some storable vegetables due to consumers keeping large quantities of them during the banes period, which represents about 27%, 20% of the vegetable retailer's opinions, respectively.

As for fruit retailers, it was found from the same table that the most important problems they faced during the period of imposing the curfew were rise in service prices and labor wages, which represents about 58% of the opinions of fruit retailers, followed by each of inability problem for paying rent, closing shops at the time of the ban, declining sales, increasing transportation cost, and increasing the percentage of fruit wastage, which represents about 50%, 50%, 42%, 33% and 33% of the Opinions of fruit retailers, respectively.

The most important problems that faced the fruit retailers after the curfew was canceled were the recession of fruit sales continued with 58% of the opinions of fruit traders, followed by a decrease in demand for fruit by 33% of the opinions of the fruit retailer.

Table (12): Analyzing the opinions of the retailers on the most important problems facing merchants during the two periods(March - May); (End of May - now) of imposing curfews as a result of the spread of the Corona virus

Statement marketing Activity	Period	The most important problems from the point of view of the retailer	Relative frequency of opinions%
vegetable merchant	The first period (March to May)	being unable to pay the rent	13
		High transportation costs	47
		Rise in service prices and labor wages	27
		Closing of shops during the curfew period and working hours	60
		The high percentage of wastage of vegetables	27
		Great Sales drop	40
	The second period of May so far	Decreasing demand for some storable vegetables due to consumers keeping large quantities of them during the banes period	20
		Continuing recession of sales and purchasing power	27
		debt accumulation	33
fruit merchant	The first period (March to May)	being unable to pay the rent	50
		High transportation cost	33
		Rise in service prices and labor wages	58
		closing of shops during the curfew period and working hours	50
		The high percentage of wastage of vegetables	33
		Great Sales drop	42
	The second period at the end of May until now	Continuing recession of sales and purchasing power	58
		debt accumulation	33

**Source** :Traders' opinion forms in the retail market.

#### **Suggestions of retailers of vegetables and fruits :**

Table (13) shows the relative importance of the suggestions for the vegetable and fruits retailer in the procedures followed in the event of the emergence of other waves of the Corona virus. The most important of these recommendations for vegetable traders that

shouldn't stop the economic activity or close in the event of any other Corona waves represents about 47% of the opinions of vegetable retailers, continuation of the application of precautionary measured by 13%.

Table (13): The relative importance of the retailer's suggestions in the procedures that must be followed in the event of the emergence of a second wave of Corona

Traders Activity	suggestions	Opinion of retailers %
vegetable	Not to close or increase working hours if another wave appears	47
	Continuing to apply precautionary measures	13
fruit	Not to close or increase working hours if another wave appears	67
	Continuing to apply precautionary measures	58
	Providing easy loans to merchants in the event of any measures being applied in the future	25

**Source :** Traders' opinion forms in the retail market.

For fruit traders, the most important of these suggestions was mustn't stop activity or close in the event of other waves Corona represents about 67% of the opinions of fruit retailers, followed by the continuation of applying precautionary measures, and granting retailers loans with credit facilities ,which represented about 58%, 25 % of fruit retailers' opinions, respectively.

### Conclusion

The world witnessed the emergence and spread of Covid-19 virus in the world in 2020. The problem of research is the expected economic effects appeared either negative or positive on the marketing activity of some fruit and vegetable crops. The research aims to identify the negative and positive effects of the spread of Covid-19 on the marketing activity of the wholesaler and retailer for vegetable and fruit crops.

The main results of the research shows that the most important negative effects that fruit wholesalers whom faced during this period were decrease in the quantity of dealing in fruit for the wholesaler and the decrease in the profits of the wholesaler, it represented about 93% for each .

The research studied increasing or decreasing the demand for vegetables and fruits it found that 17%of the wholesalers of vegetables told an increase in demand for some types of vegetables while 50% decrease the demand. The demand was increased for both potatoes and onions, they were about 11% for each. For fruits the results indicated that 93% of fruit wholesalers see an increase in demand, while 67% decrease in demand for some types of fruits . For the types of fruits that were in high demand, they were lemons, oranges and guavas,

where the demand for them increased by 49%, 42%, 13%, respectively.

The reasons for the increased demand for some types of vegetables due to the opening of the Oboor market for 24 hours / day was about 100% from their opinions, but the decrease in demand due to close a large number of restaurants by 75%. Regarding to fruit crops, the results showed that 67% of the opinions of traders believed that the reasons for the increase in demand for some types of fruits are due to the increase in demand for citrus and lemons.

The vegetables whose wholesale prices decreased, were turnips, carrots, tomatoes, and secondary vegetables such as broccoli by about 35%, 32%, and 20%, respectively . Types of vegetables whose prices have increased, were potatoes, tomatoes and onions, at a rate of 13% for each .For fruits, the results indicated that 80% of fruit wholesalers think an increase in the prices of some types of fruit while 50% think a decrease in the prices of some types of fruits .For types of fruits the prices of which rose were lemons, oranges and guavas , as their prices increased by 37%, 30%, 30%, respectively .

It showed that the most important problems were confusion of working movement in the market on the first day of the curfew, which represents about 67% of the opinions of wholesalers, .In other words the most important problems that faced the wholesaler of vegetables after cancellation of the curfew was inability of wholesalers to repay the accumulated debts for 33% of their opinions. Related to fruit traders were lack of permission for the movement of buyers, farmers and retailers during the curfew period, which represents about 80% of the opinions of wholesalers, there were some quantities of vegetables that weren't marketed, which

represented the opinions of about 75% of retailers opinions.

The results showed that 27% of the retailers of vegetables think an increasing in demand for some types of vegetables, while 53% of decreased. The demand was increased for potatoes, onions and garlic by about 13%, 12%, 12% respectively, but was decreased for leaves by 33%, then cucumbers by 27%, then each of eggplant, peppers and squash by 16%, 16%, and 15%, respectively. Regarding to fruits, the results indicated that 75% of fruit retailers think an increase in demand, while 67% of fruit retailers think that decreasing in demand for some types of fruits, such as lemons, oranges and guavas, where the demand for them increased by 58%, 21%, 8%, respectively, but the demand was decreased for cantaloupe and mango, with a decrease in demand for each of them about 20%, 19%, respectively.

It was found that the most important problems they faced during the period of imposing the curfew were closing shops at the time of the crisis, That represents about 60% of the opinions. For fruit retailers, it was found that the most important problems they faced during the period of imposing the curfew were rise in service prices and labor wages, which represents about 58% of the opinions of fruit retailers.

The study finally, suggests that it shouldn't stop the economic activity represents about 47% , continuation of the application of precautionary measures by 13% and Providing easy loans to merchants in the event of any measures being applied in the future by 25%from their opinions.

#### Reference

- [1]. The Council of Ministers, Information and Decision Support Center, the repercussions of the Corona virus on the global economy and its repercussions on the Egyptian economy, (Cairo: Information and Decision Support Center, 2020).
- [2]. The Egyptian Society for Agricultural Economics, "Analysis of the Effects of the Corona Crisis on Egyptian Food Security and the Proposed Policies and Measures to Deal with its Repercussions," April, 2020.
- [3]. Traders' opinion forms in the retail market - 2020.
- [4]. Traders' opinion forms in the wholesale market - Oboor market 2020.
- [5]. [www.devpolicy.org](http://www.devpolicy.org)
- [6]. [www.Oboormarket.org.eg/](http://www.Oboormarket.org.eg/)

3/22/2022