

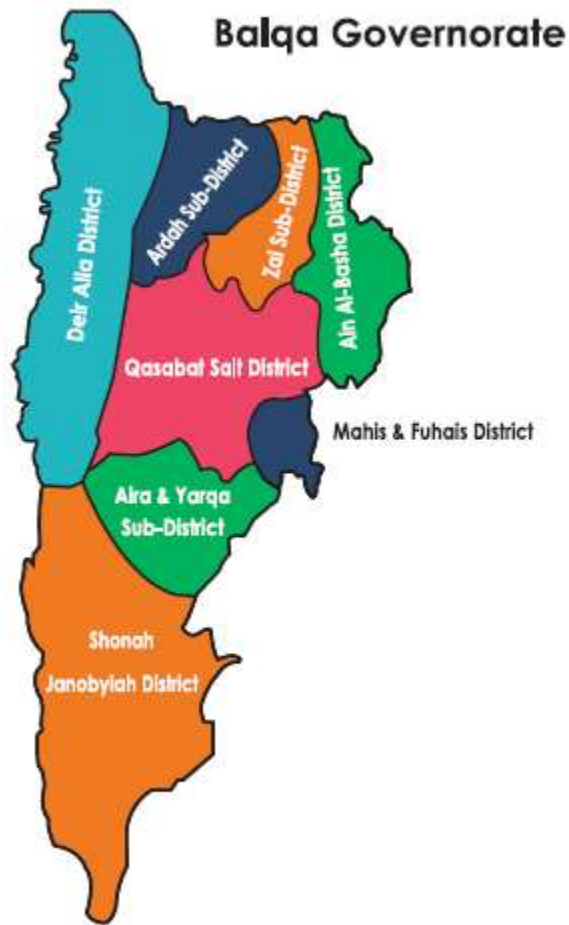
Pre-Feasibility Study
An Integrated Factory for the Production of Processed Olives and Pickles
Balqa

April, 2017



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1. Executive Summary

This study aims at determining the pre-feasibility of establishing an integrated plant for the production of processed olives and pickles in Al-Balqa Governorate. The project will be established in Al-Salt Industrial Area because the nature of the area is suitable for this project, and the availability of the necessary services needed such as electricity, water, and sources of energy, roads and others.

The project is based on the utilization of surplus production of olives and vegetables, and then processing, pickling, storing and selling them to wholesalers, retailers, restaurants, hotels, etc in the Jordanian market. Domestic demand has increased significantly over the past years, especially by fast food restaurants. In addition, part of the factory products will also be exported to overseas markets, especially the Arabian Gulf Markets. The following table shows the preliminary indicators of the project.

Table 1: Initial Indicators of the Project

Project Name	Integrated Factory for the Production of Processed Olives and Pickles
Sector	Industrial Sector - Food Industry
Governorate	Al-Balqa
Region	Al-Salt Industrial Area
Products / Services	<ul style="list-style-type: none"> • Processed Olive of various types (green, black salted, black sweetened, sliced). • Pickles of various types such as cucumbers, carrots, cauliflower, pepper, etc. • Large sized packaging for restaurants and hotels.
Project Description	<p>A factory for the production of processed olives and pickles will be established in Al-Balqa Governorate in Al-Salt Industrial Area. The project will be established on an area of 20,000 m², with the establishment of buildings and warehouses with a total area of 4,500 m². The factory will be equipped with all the required modern machinery and equipment needed for the processed olive production line and the pickles production line. The project will have approximately 60 employees.</p> <p>The total production capacity of the project will be about 3,500 tons per year, as the maximum production capacity of processed olive production will be about 2,000 tons per year. The maximum production capacity for the production of pickles will be about 1,500 tons per year.</p>

	The sale price of processed olives in the first year will be about JD 1.4 per kg, and will increase to JD 1.8 in the tenth year. As for the sale price of pickles, it will reach JD 1.2 per kg in the first year, and will increase to JD 1.6 in the tenth year.
Target Market	<ul style="list-style-type: none"> • The Jordanian market of wholesalers, retail stores, restaurants, hotels, etc. • Export to foreign markets.
Investment Cost	The investment cost of the project is about JD 5.1 million.
The Average Rate of Return on Investment	The average return on investment during ten years is about 16.5 %
Internal Rate of Return	The internal rate of return for the project is about 20.1%
Average Added Value to the Project	The average added value of the project in ten years is about JD 1.7 million.
Degree of Risk	The Sensitivity analysis indicates a low degree of risk for the increase in investment cost by 10%, or a decrease in revenue by 10%, or increase in operating costs by 10%.
The Project Justification	<ul style="list-style-type: none"> • Availability of raw materials in Jordan. • The presence of imports of processed olive. • A surplus of vegetable production in some seasons. • Increased demand for fast food. • The employment of National Labor.
Partners	none

2. The Macroeconomic Environment

2.1 An Overview of the Hashemite Kingdom of Jordan

The Hashemite Kingdom of Jordan is a landlocked country surrounded by land except at its southern extremity at the port of Aqaba, where that area is the only sea exit area in Jordan. The Kingdom is bordered at its west side by Palestine and the Mediterranean Sea, at its south and east by the Kingdom of Saudi Arabia, at north east by Iraq and at north by Syria.

Figure1 : Map of the Hashemite Kingdom of Jordan



Jordan is marked by three climatic zones from west to east including the Jordan Valley, most of which lies below sea level and is considered subtropical, and upland areas to the east of the Jordan Valley, ranging in height from 100 to 1500 meters above sea level and this is one of the areas dominated by Mediterranean climate, and the desert areas stretching to the east of the highlands.

The total area of the Kingdom is approximately 89.3 thousand square kilometers, and the semi-desert conditions prevail in over 80% of this area where there are some wet lands settings like Azraq Basin.

The kingdom is divided administratively into twelve governorates distributed into three regions: the Northern Region (includes the governorates of Irbid, Ma'ana, Zarqa and Ajloun) while the Central Region (includes the governorates of the capital, Zarqa, Balqa, Madaba) and the Southern Region (includes the governorates of Karak, Tafila, Ma'an, Aqaba), and the major cities are Amman (the capital), Zarqa and Irbid.

2.2 Population

Based on the General Census of Population and Housing in 2015, the population in the kingdom amounted to about 9.5 million people with a population density of 107.3 inhabitants per km², where the Capital City knocked off other governorates by population amounting to about 4 million people and a population density of 528.8 inhabitants per km², mainly because Amman is the most attractive governorate for Jordanians and for those coming to Jordan from other countries, followed by Irbid Governorate with a population of 1.8 million people, and then Zarqa Governorate with a population of 1.4 million. Tafila Governorate which is considered to be the least populous governorate whose population is about 96 thousand people.

Table 2: Number of population and population density in the Kingdom for 2015

Governorate	Population (people)	Area (Km ²)	Population density (people/ km ²)
Central Region			
Capital	4007526	7,579	528.8
Zarqa	1364878	4761	286.7
Balqa	491709	1120	439.0
Madaba	189192	940	201.3
North Region			
Irbid	1770158	1572	1126.1
Mafraq	549948	26551	20.7
Jerash	237059	410	578.2
Ajloun	176080	420	419.2
Southern Region			
Karak	316629	3495	90.6
Tafeileh	96291	2209	43.6
Maan	144082	32832	4.4
Aqaba	188160	6905	27.2
Total of Kingdom	9531712	88793.5	107.3

Source: Department of Statistics, Jordan General Population and Housing Census, 2015

On the other hand, the population growth rate has reached about 3% in 2010 and increased to 9% during the years 2013 and 2014 and then dropped a little during 2015 to reach about 8%, according to demographic surveys for the Department of Statistics. The reason for the high growth rates is attributed to the influx of large numbers of refugees from Syria to the Kingdom which resulted in a marked decline in per capita real GDP index by 5.4% to JD 1,197.4, based on the Statements of the Central Bank of Jordan.

The unemployment rate among Jordanians also witnessed a rise by 1.1 percentage to reach to 13%, due to the structural imbalances that the labor market is suffering from and the acquisition

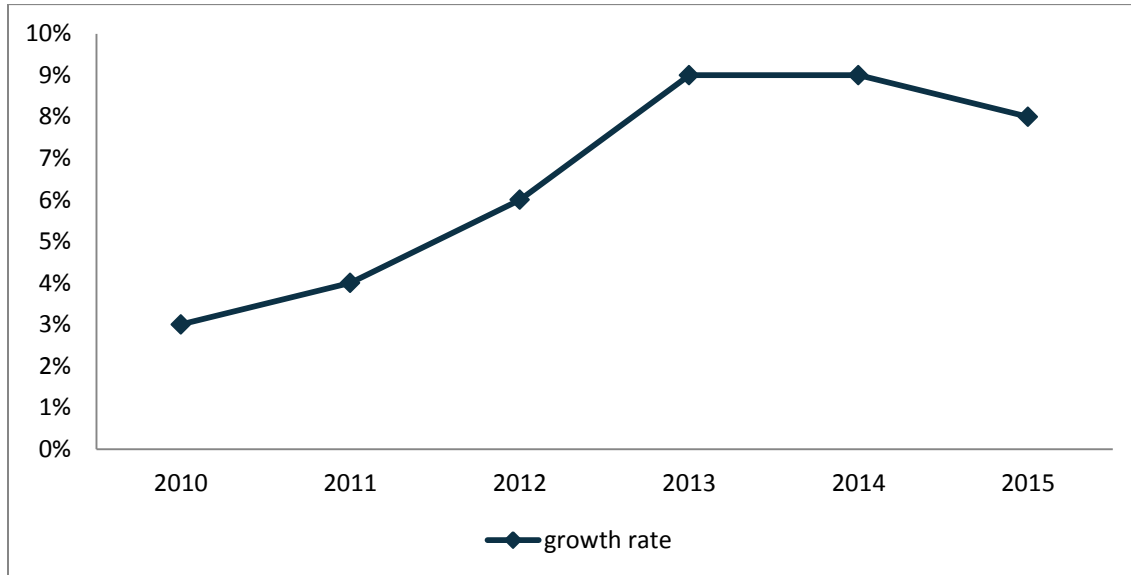
of the low-paid foreign workers on a large number of new jobs in the economy, according to the Central Bank of Jordan.

Table 3: Number of population and population growth in the Kingdom, thousand

	2010	2011	2012	2013	2014	2015
population	6698.0	6993.0	7427.0	8114.0	8804.0	9531.7
growth rate	%3	%4	%6	%9	%9	%8

Source: Department of Statistics

Figure2 : population growth rate in the Kingdom



2.3 Economic Indicators in the Kingdom ¹

Countries across the Middle East are still suffering from instability and closure or partial closure of borders; including the borders of important markets for the Kingdom's products. These factors led to a decline in the performance of many of the economic sectors, including the external sector, national exports, touristic income, and Foreign Direct Investment (FDI), and they contributed to a slowdown in the economic growth to about 2.4% in 2015, compared to 3.1% in 2014. The growth achieved in 2015 came from growth across several economic sectors, especially in the finance, insurance, and real estate services; the transport, storage, and communications services; the mining industry; the manufacturing industry; and the agriculture sector. These sectors contributed a combined 1.8 percentage points (or 75%) of the growth rate achieved during 2015, reflecting the diversity of the economic growth sources in the Kingdom.

Additionally, the general price level registered a decline in the prices of oil, commodities, and other related services in the global markets. Therefore, the general price level, measured by the relative change in the average consumer price index deflated by 0.9% in 2015, compared to the inflation of 2.9% in 2014.

The budget deficit, after aid, increased by 1.2% to a record 3.5% of GDP, compared with 2.3% in the previous year. In addition, the Balance of Payments' Current Account recorded a deficit of 8.9% of GDP, compared with 7.3% in 2014. At the end of 2015, the net public debt amounted to 22,847.5 million Jordanian Dinars (85.8% of the GDP), with an increase of 5.0% of the GDP. However, the total public debt reached 24,876.5 million Jordanian Dinars (93.4% of GDP). This increase resulted from financing both the general budget deficit and the guarantees for loans for the National Electricity Company and the Water Authority, as well as the slowdown of economic growth during 2015. The indebtedness of the National Electricity Company and the Water Authority recorded 6.7 billion Jordanian Dinars at the end of 2015.

On the monetary and banking front, most monetary indicators experienced positive development in performance in 2015, primarily in the Central Bank's foreign reserves, which maintained comfortable levels that amounted to about \$14.2 billion. The dollarisation rate decreased, which reflected positive demand for Jordanian Dinars in comparison to other major foreign currencies. With regards to the activities of licensed banks, the outstanding balance of credit increased by 9.5%, to reach 21,103.5 million Jordanian Dinars at the end of 2015. The total deposits registered with licensed banks increased by 7.7%, to reach 32,598.5 million Jordanian Dinars at the end of 2015. The increase in deposits came as a result of the high dinar deposits, which increased by 2,001.4 million Jordanian Dinars (8.3%), and higher foreign currency deposits, which increased by 336.1 million Jordanian Dinars (5.4%).

¹ The Central Bank of Jordan

Furthermore, many of the external sector indicators registered a drop in performance in 2015 due to the deepening instability in the region and almost full closure of the borders with Iraq and Syria. However, the drop in oil prices in the global markets contributed to the decline in the Kingdom's imports bill for energy, as it dropped by 40.6%, which in turn contributed to a decline in total imports and the trade deficit by 11.4% and 14.0%, respectively. Thus, the Current Account, excluding aid, declined to 11.9% of GDP, compared to 12.4% in 2014.

The Current Account deficit increased after aid, to reach 2,365.6 million Jordanian Dinars (8.9% of GDP) in 2015, compared with a deficit of 1,851.7 million Jordanian Dinars (7.3% of GDP) in 2014. This decline is due mainly to the decline in total exports by 6.6% and the decline in surplus in the services account by 27.7%, as touristic income decreased by 7.1%, and the decline in the surplus in the current transfers account decreased as a result of reduced foreign aid.

Capital and financial accounts resulted in a net inflow of 1,593.7 million Jordanian Dinars in 2015, compared to 909.0 million Jordanian Dinars in 2014; this was due to the Kingdom's higher net obligations towards the outside world. Foreign Direct Investment registered a net inflow of 909.4 million Jordanian Dinars, and the reserved investment registered an inflow of 918.4 million Jordanian Dinars due to the Kingdom issuing Eurobonds that are worth \$2.0 billion in the global markets. The withdrawal of bank loans on behalf of the Central Bank increased the use of funds from the International and Arab Monetary Funds by 543.3 million Jordanian Dinars. This led to the registration of a surplus in the overall Balance of Payments of 328.7 million Jordanian Dinars during 2015, compared to a surplus of 1,550.7 million Jordanian Dinars during 2014.

According to the Central Bank of Jordan, the increased international investment at the end of 2015 showed an increase in the external net liabilities of the Kingdom, which reached 24,357.5 million Jordanian Dinars, compared with 22,578.8 million Jordanian Dinars at the end of 2014. This was due to an increase in the external balance of assets and financial liabilities for all of the economic sectors in the Kingdom, which reached to 18,657.9 million Jordanian Dinars and 43,015.5 million Jordanian Dinars, respectively, during 2015.

Table 4: main economic indicators 2011 to 2015 in millions of dinars

	2011	2012	2013	2014	2015
Population (millions)	6.993	7.427	8.114	8.804	9.532
Unemployment rate	12.9	12.2	12.6	11.9	13.0
Production and Prices					
GNP at current market prices	20,288.8	21,690.0	23,611.2	25,141.2	26,289.6
GDP at current market prices	20,476.6	21,965.5	23,851.6	25,437.1	26,637.4
The rate of growth in GDP at constant market prices (%)	2.6	2.7	2.8	3.1	2.4
The total national disposable income at current prices	23,743.5	24,774.9	28,424.5	30,302.1	30,234.7
The rate of growth in gross national disposable income at current prices (%)	4.7	-0.2	8.6	3.1	-2.4
Change in the index of consumer prices (%)	4.2	4.5	4.8	2.9	-0.9
The change in the GDP deflator (%)	6.4	4.5	5.6	3.4	2.3
Money and Banking					
Exchange rate of the Jordanian dinar to the US dollar	1.410	1.410	1.410	1.410	1.410
Money supply (P2)	24,118.9	24,945.2	27,363.4	29,240.4	31,605.5
Net foreign assets of the banking system	9,370.1	6,665.5	6,923.4	7,932.3	8,137.3
Net domestic assets of the banking system	14,748.8	18,279.7	20,440.0	21,308.1	23,468.2
Net debt of the government	6,701.4	9,461.3	10,494.8	10,473.9	11,386.4
Private sector debts (Residents)	14,925.0	15,953.6	17,222.5	17,852.8	18,704.5
Other factors ⁽¹⁾	-6,877.6	-7,135.2	-7,277.3	-7,018.5	-6,622.7
Deposits in dinars at licensed banks	19,119.1	17,711.1	21,003.0	24,013.1	26,014.5
Foreign currency deposits at licensed banks	5,258.8	7,258.6	6,590.2	6,247.9	6,584.0
Rediscount rate (%)	4.50	5.00	4.50	4.25	3.75
Treasury bills interest rate for 6 months (%)	3.232	3.788	-	-	-
Public Finance					
Total revenue and foreign aid	5,413.9	5,054.2	5,758.9	7,267.6	6,796.4
Ratio to GDP (%)	26.4	23.0	24.1	28.6	25.5
Total spending	6,796	6,878.2	7,077.1	7,851.1	7,722.9
Ratio to GDP (%)	33.2	31.3	29.7	30.9	29.0
Overall deficit/savings (on an accrual basis)	-1,382.7	-1,824.0	-1,318.2	-583.5	-926.5
Ratio to GDP (%)	-6.8	-8.3	-5.5	-2.3	-3.5
Net outstanding balance of the domestic public debt	8,915.0	11,648.0	11,863.0	12,525.0	13,457.0
Ratio to GDP (%)	43.5	53.0	49.7	49.2	50.5

	2011	2012	2013	2014	2015
Outstanding external public debt ⁽²⁾	4,486.8	4,932.4	7,234.5	8,030.1	9,390.5
Ratio to GDP (%)	21.9	22.5	30.3	31.6	35.3
Foreign Trade and Balance of Payments					
Current account	-2,098.8	-3,344.9	-2,487.7	-1,851.7	-2,365.6
Ratio to GDP (%)	-10.2	-15.2	-10.4	-7.3	-8.9
Trade balance (Deficit)	-6,261.7	-7,486.6	-8,270.1	-8,495.6	-7,249.3
Ratio to GDP (%)	-30.6	-34.1	-34.7	-33.4	-27.2
Commodity exports	5,684.5	5,599.5	5,617.9	5,953.6	5,558.3
Imports of goods (FOB) ⁽³⁾	11,946.2	13,086.1	13,888.0	14,449.2	12,807.6
Balance of services (net)	896.0	1,332.3	1,209.5	1,778.9	1,286.4
Income account (net)	-187.8	-275.5	-240.4	-295.9	-347.8
Current transfers (net)	3,454.7	3,084.9	4,813.3	5,160.9	3,945.1
Capital and financial account (net)	2,298.9	3,808.9	1,811.1	908.9	1,593.7
Direct foreign investment in Jordan (net)	1,055.0	1,074.3	1,281.2	1,426.7	905.1

Source: Monthly Statistical Bulletin, Central Bank of Jordan

1. Includes the debts of public and financial institutions and other factors, as shown in the Monetary Survey Agenda.
2. This represents the total balance of drawn loans, minus total repayments.
3. Does not include imports of non-resident entities.

2.4 The Jordanian Investment Environment

Investment Law No. 30 for 2014

Investment Law no. 30 for 2014 is considered an appropriate legislative framework to attract foreign investments and stimulate local investments. It is considered a competitor to other investment laws in the region because it contains many advantages, incentives, and guarantees, and it offers a range of incentives and benefits in and outside the Development and Free Zones. The law includes a series of public provisions, such as foreign investment guarantees (depositing and withdrawal of capital, investment management, and transfers) and the inadmissibility of the disbarment of investment property. The law offers provisions to settle investment disputes, protection, and encouragement of mutual investment agreements between the Kingdom and other countries.

The following shows the major incentives granted by the law:

❖ Incentives and Benefits outside the Development and Free Zones

- The production inputs for the industrial and crafts sectors are exempted from customs duties.
- The return of the general sales tax on the production inputs for the industrial and crafts sectors within 30 days.
- Production inputs and fixed assets of the industrial and crafts sectors are exempted from customs duties and are granted a reduction in general sales tax to 0%.
- Returning to the sales tax on the services needed to practice economic activity within 30 days.
- The goods that are necessary for the economic activities of the following sectors are exempted from customs duties and are subject to 0% general sales tax:
 - Agriculture and livestock, hospitals and specialised medical centres, hotels and touristic facilities, touristic entertainment and recreation centres, call centres, scientific research centres and laboratories, art and media production, convention centres and exhibitions, transfers and/or distributions and/or extraction of water, gas and oil derivatives, air transport, maritime transport, and railways.

❖ Incentives and Benefits inside the Development and Free Zones

- 5% income tax on the income generated from economic activity within the Development Zone.
- 5% income tax on income generated from economic activity in the industrial sector.
- Tax exemptions that are granted in the Kingdom on goods and services exports.

- Reduction of sales tax to 0% on goods and services that are used by the establishment in order to exercise its activity inside the Development Zone.
- 7% sales tax on specific services provided by a registered company in the zone when these services are consumed in the zone.
- Exemptions from customs duties except for a specified number of goods.

❖ **The Reduction of Income Tax in the Least Developed Areas for Regulation No. 44 for 2016**

- The reduction of income tax in the least developed areas for Regulation No. 44 for 2016 was approved. It aims to create an attractive environment for investments that promote economic development through the reduction of income tax outside the Development Zones and in the least developed areas in the Kingdom. The regulation specified the areas that are considered least developed and identified the activities that are excluded from this reduction.
- Under the provisions of Articles 4 and 5 of this regulation, the areas that were categorised as least developed and enjoy the reduction in income tax are divided into four categories; each category enjoys a reduction in income tax on their activities for a period of 20 years.
- Category A includes the Northern Valley District, Deir Alla District, Shouneh Al-Janoubieh District, the Southern Valley District, Rweished District, the Northern Desert District, the North Western Desert District, Al-Azraq Province, Al-Jiza District except for the borders of the new Al-Jiza municipality, Al-Moakar District except for the borders of Al-Moakar municipality, and the Governorate of Aqaba except for the Aqaba Special Economic Zone. The reduction rate for this category is 100%.
- Category B includes the Governorates of Maan, Tafileh, Karak, and Ajloun. The reduction rate for this category is 80%.
- Category C includes the Governorates of Jarash, Mafraq, and Irbid except the borders of the Greater Irbid Municipality. The reduction rate for this category is 60%.
- Category D includes the Governorates of Madaba, Balqa, Amman except for the Greater Amman Municipality, and Zarqa except for the borders of Zarqa Municipality and Russaifeh Municipality. The reduction rate for this category is 40%.

❖ **Trade and Free Trade Agreements**

The most important agreements are:

- Jordan joining the World Trade Organisation in 2000, which led to the opening of the markets of 150 countries for Jordanian exports in goods and services, and provided new opportunities of access to other countries within a clear and transparent environment of laws, regulations, and procedures.
- A series of regional trade agreements, such as the Jordan Partnership Agreement with the European Union, Agadir Agreement, Free Trade Arab Agreement, the free trade agreement between Jordan and the European Free Trade Association, and the adoption of the Euro-

Mediterranean simplification of the rules of the Origin System, which includes the decision to simplify the rules of the origins of Jordanian products between Jordan and the European Union came into effect on July 19, 2016, and will remain in effect until December 31, 2026.

- A series of bilateral trade agreements with many countries, such as the free trade agreement between Jordan and the United States of America, the Qualified Industrial Zones Agreement, the free trade agreement between Jordan and Singapore, the free trade agreement with Turkey, the free trade agreement with Canada, and many other agreements.
- Jordan has signed more than 35 agreements with Arab and foreign countries in order to prevent double taxation between Jordan and these countries, thus protecting investors' rights.
- The Agreement of Promotion and Protection of Investments and the Movement of Capital between the Arab Countries was signed in 2000 with 11 Arab countries who are members of the Arab Economic Unity Council, in order to establish an appropriate environment for investments and economic cooperation between investors in the Arab countries, thus pushing and stimulating investment activities by providing encouragement and mutual protection for Arab investments.

Human Development Report for 2015

The Human Development Report that was issued by the United Nations Development Program in 2015 showed that Jordan fell 3 points to number 80. Please note that Jordan's place on the Human Development Report index value has improved slightly.

Global Competitiveness Report

The Kingdom's rank has improved by one point in the Global Competitiveness Report for the year 2016/2017, at 63 out of 138 countries compared to 64 out of 140 countries in the 2015/2016 report. It is considered an insignificant improvement, especially because of the reduction in the number of countries participating in this year's report. Amongst the Arab countries, Jordan was ranked after the United Arab Emirates, Qatar, the Kingdom of Saudi Arabia, Kuwait, and Bahrain, who were ranked 16, 18, 29, 34, and 39, respectively.

Doing Business Report

In the Doing Business Report that was issued by the World Bank Group, Jordan is still ranked 118, up one rank from the 2016 report, because of the variation in the performance of the different sub-indicators. Jordan ranked ninth among the Arab countries; the United Arab Emirates was ranked first among the Arab countries at 26, followed by Bahrain at 63 and Oman at 66.

2.5 The Economic Environment in the short and medium term

Risks analysis implemented by BMI indicates that the Jordan's political and economic risks in the short and medium term are less than the overall average of the world and the Middle East. The state's risks and the operational risk are estimated to be within the acceptable levels. The international institutions' forecasts point out that the economic and foreign trade indicators are expected to achieve acceptable rates of growth with the exception of the continued increase in internal and external indebtedness.

Table 5: Assessment of short and long-term risks

	Long term		Short term		Operational risks	State risks
	political	Economic	political	economic		
Jordan	63.1	39.2	66.6	46.2	58.7	55.4
Turkey	60.2	49.4	58.4	56.9	55.9	56.1
Egypt	53.3	45	52.4	48.7	42.9	47.5
Lebanon	45.8	54	55.4	53.5	44.2	49.5
West Bank and Gaza	33.1	38.1	32.2	36.5	32.5	34.3
Syria	22.9	24.4	22.4	23.6	29.3	26.1
Regional average	49.4	46.9	51.2	48.7	46.6	48.3
global average	64.1	50.7	61.3	51.9	49.8	54.6

Source: the economy and state risks, IHS, 15/09/2016

Table 6: The most important key economic indicators 2016-2020

Indicator	2016	2017	2018	2019	2020
The growth rate of GDP	2.6	2.7	2.8	3.2	3.1
GDP (in USD billions)	39.6	42.1	44.8	47.8	50.9
Population (In millions)	9.8	10.1	10.4	10.7	11.0
Consumer Price Index (% change)	-0.7	1.8	3.3	4	3.2
Exports (in USD billions)	7.3	7.6	8.2	8.8	9.6
Imports (in USD billions)	18.3	19.2	20.1	21.3	22.8
Foreign direct investment, the net value (in USD billions)	1.5	1.5	1.6	1.6	1.7
Foreign direct investment, the net value (% of GDP)	3.7	3.7	3.6	3.4	3.3
Foreign exchange reserves (in USD billions)	13.9	14.9	15.7	16.8	17.7
Total external debt (in USD billions)	24.4	27.8	30.7	33.7	36
Total external debt (% of GDP)	61.6	66	68.6	70.4	70.6
Total external debt (% of foreign currency earnings)	127.3	138.3	143.6	147.5	147.8

Source: the economy and state risks, IHS, 15/09/2016

3. Market Study

3.1 Project Description

The project is an integrated factory for the production of processed olives of various types and pickles, due to the availability of raw materials needed by the project of olives and vegetables, and the presence of a surplus of vegetable production in some seasons in Jordan. The project will be established on an area of 20,000 m², and will be located in the Al-Balqa Governorate in Al-Salt Industrial Area due to the availability of necessary services suitable for the factory such as electricity, water, roads, information technology, energy sources and others.

3.2 Expected Services Description

The Project expected products include the following:

- Processed Olive of various types (green, black salted, black sweetened, sliced).
- Pickles of various types such as cucumbers, carrots, cauliflower, pepper, etc.
- Large sized packaging for restaurants and hotels.

3.3 The Market Size

Processed Olive (Green & Black)

To estimate the total market size of the processed olives, the consumption volume of processed olives will be determined for two main sectors: houses and restaurants. It is worth mentioning that the intended meaning of processed olives is all kinds of olives, whether pickled olives that are processed by the addition of salt, vinegar and water, or the black sweetened olives, which are treated with oxides salts and preservatives.

a. Household Consumption

The Department of Statistics conducted a survey of household income and expenditure in 2013 in various Governorates of the Kingdom. The survey determined the rate of per capita consumption during the year for many types of foods that people consume, and among these types of foods are the processed olives. The average per capita consumption of processed olives according to the survey results was 0.47 kg annually.

The population of the Kingdom is about 9.5 million according to the General Population and Housing Census, which was conducted by the Department of Statistics in 2015. With the adoption of the average per capita consumption of processed olive set at 0.47 kg / year, we can estimate the household consumption volume of processed olive at about 4,465 tons.

b. Restaurants Consumption

According to the General Census of Establishments in 2011, the number of establishments engaged in food and beverage activities in the Kingdom was 8,470 establishments, as they were distributed among establishments that provide food services and facilities that provide beverage services. The number of restaurants reached 5328 establishments accounted for 63% of the total establishments operating in the food and beverage services.

In order to estimate the restaurants consumption volume of processed olive in the Kingdom, a field survey was conducted on a sample of restaurants. A sample of restaurants was selected varying in terms of the type of served food and the number of restaurant branches, as well as their dependence on processed olives within their meals and their consumption volume.

It was noted that the restaurants consumption of processed olives depends mainly on the kind of the food served, as some restaurants consume (7-10) kg of processed olives per day, and other consume from (0.5 - 1.5) kg per day.

The survey results show that about 30% of all restaurants consume processed olives, with an average consumption of about 2.9 kg per day. Consequently, the number of restaurants consuming processed olives in the Kingdom can be estimated at 1,598 restaurants out of 5328 restaurants. The restaurants consumption of processed olive during the year was estimated at 1,691 tons annually.

Total Market Size

Based on the previous information concerning the consumption volume of processed olive through the two sectors of houses and restaurants, the total market size of olives consumed in the Kingdom was estimated at 6,156 tons annually. The restaurants consume approximately 27% of the total market size of processed olives. The household consumption accounts for 73% of the total market size of processed olives.

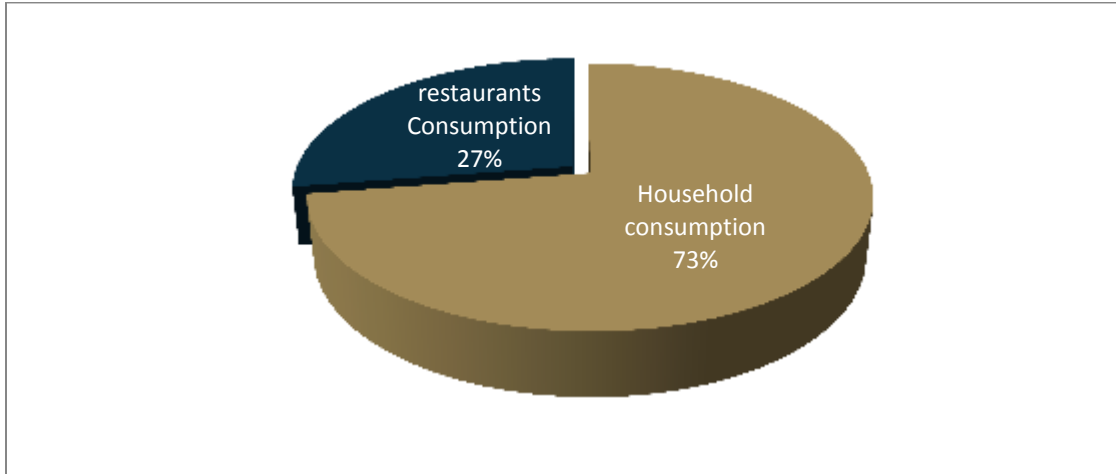
Table 7: Market Size of Processed Olive by Consuming Sectors

	Market size (ton)
Household consumption	4,465
Restaurants Consumption	1,691
Total	6,156

Source: Household Income and Expenditures Survey, Department of Statistics, 2013

- Results of Field Survey, the calculation of the Study Team

Figure3 : Distribution of the Market Size for Processed Olive by Consuming Sectors



The market needs of processed olives of all types are met through local production and imports. The following table illustrates that the imports account for 44% of the total market size of the processed olive, with amount of 2,714 tons. The domestic production accounts for 56% of the total market size of the processed olives.

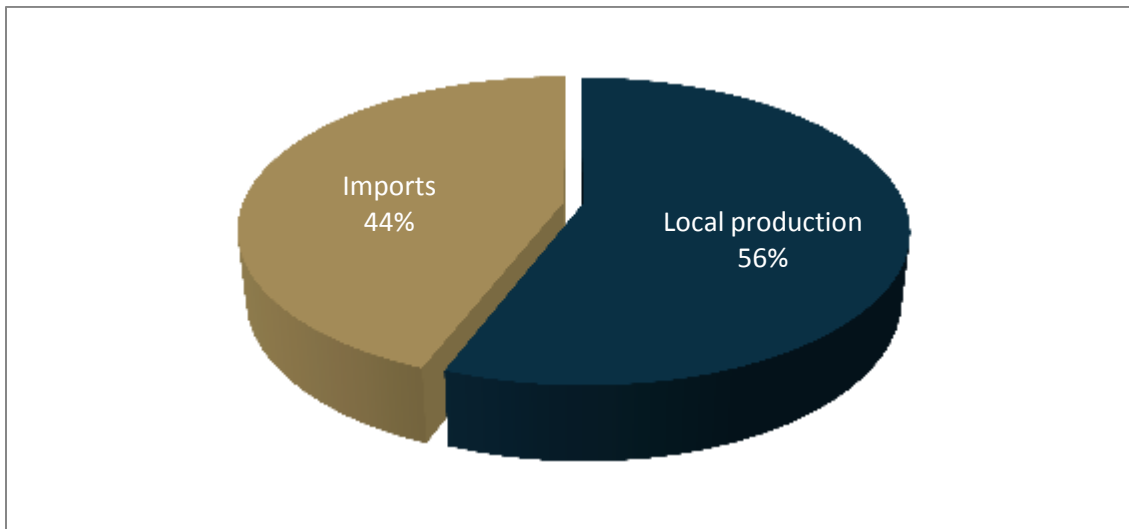
Table 8: Distribution of Market Size for Processed Olive.

	(ton)	Percentage
Local production	3,442	56%
Imports	2,714	44%
Total	6,156	100%

Source: Department of Statistics, Foreign Trade, 2015

- The calculation of the Study Team

Figure4 : Distribution of Market Size for Processed Olives



❖ Imports

The net imports of processed olives of all types (pickled and sweetened) in the Kingdom in 2015 amounted to about 2,714 tons, valued at JD 3.3 million (based on the Department of Statistics). When analyzing the net imports of processed olives, we find that the Kingdom imports the largest quantity from Egypt by 52% of the total imported processed olives with imports estimated at 1,420 tons and valued at JD 1.8 million. Egypt is followed by Spain with 38% of imported processed olives with 1,021 tons and JD 1.1 million. The remaining quantities of imports are distributed to other countries at very low percentages, as it is noted that Egypt and Spain are among the leading countries in producing processed olives and exporting them to the Kingdom.

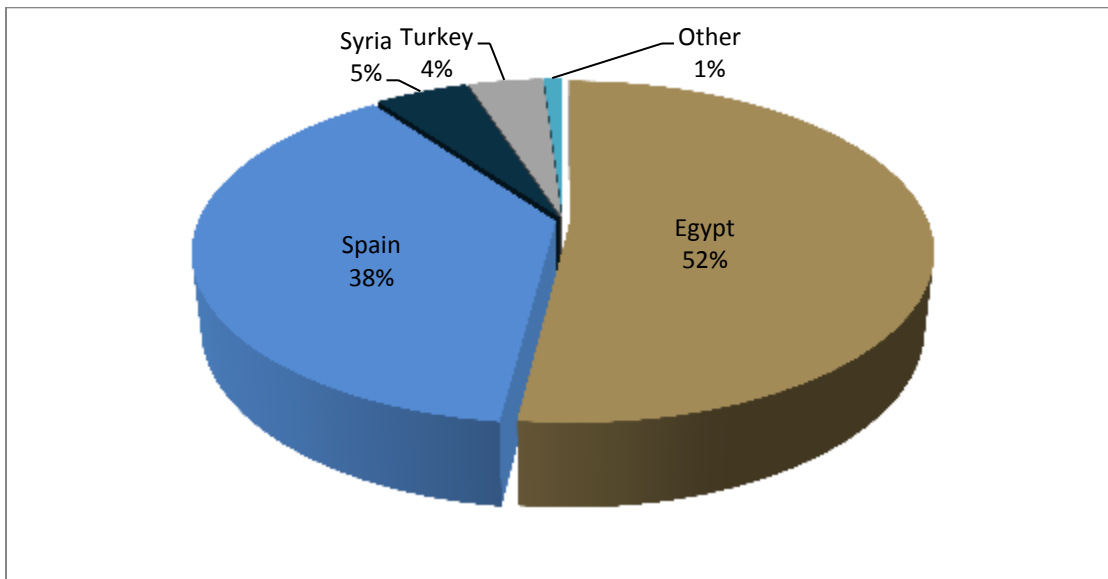
It is worth mentioning that the olives imported by the Kingdom from Egypt and Spain are the black sweetened olives types, which are used in making pizzas, sandwiches and other uses. This type of olive is imported in several forms, as it might be in the form of a whole olive fruit or slices or stuffed with various fillings such as carrots and others.

Table 9: The Kingdom Net imports of processed olives for the year 2015

	Value (thousand JD)	%	Quantity (tons)	%
Egypt	1,797	54%	1,420	52%
Spain	1,091	33%	1,021	38%
Syria	157	5%	135	5%
Turkey	172	5%	113	4%
Other	110	3%	25	1%
Total	3,327	100%	2,714	100%

Source: Department of Statistics, Foreign Trade, 2015

Figure5 : Distribution of the Kingdom's imports of processed olives by country in 2015



❖ **Local Production**

The total volume of local production of processed olives was estimated at 9,270 tons, based on the market size estimates and the Department of Statistics, as 5,828 tones of locally processed olives were exported in 2015 accounting for 63% of the total local production of processed olives. In addition, 3,442 tones of locally processed olives were consumed locally.

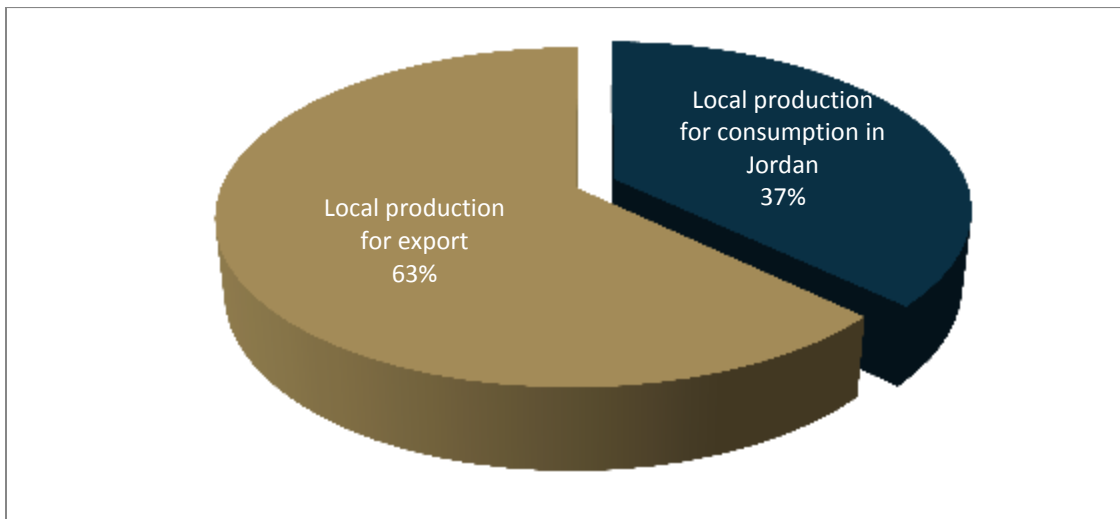
Table 10: Distribution of local production of processed olives

	Quantity (tons)	Percentage
Local production for consumption in Jordan	3,442	37%
Local production for export	5,828	63%
Total Local production	9,270	100%

Source: - Department of Statistics, Foreign Trade, 2015

- Calculating the Study Team.

Figure6 : Distribution of local production of processed olives



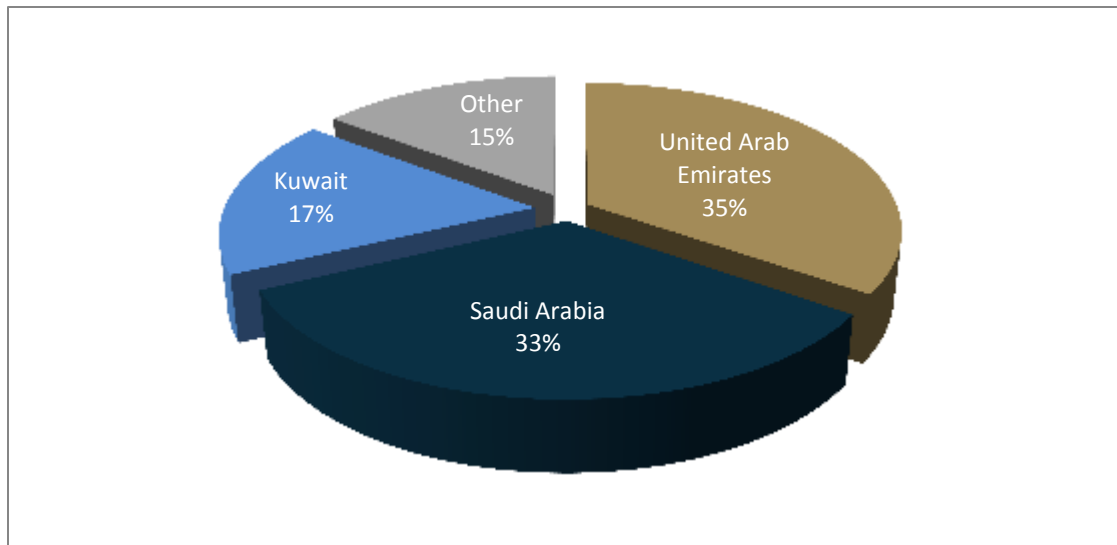
When analyzing the Kingdom's exports for 2015, which amounted to 5,828 tons and valued at JD 5.8 million, it was noted that the Kingdom exports processed olive of various types in large quantities to the Gulf States, The total amount of exports to the United Arab Emirates is 2,022 tons, and constitute 35% of the total exports of processed olives. United Arab Emirates is followed by Saudi Arabia by 33% with a total of 1,932 tons. Then Kuwait that accounted for 17% of the total exports of processed olives with estimated quantity of 1,018 tons.

Table 11: The Kingdom's exports of processed olives for the year 2015

	Value (thousand JD)	%	Quantity (tons)	%
Arab Emirates	2,027	35%	2,022	35%
Saudi Arabia	1,968	34%	1,932	33%
Kuwait	957	16%	1,018	17%
Other	902	15%	856	15%
Total	5,854	100%	5,828	100%

Source: Department of Statistics, Foreign Trade, 2015

Figure7 : Distribution of the Kingdom's exports of processed olive for the year 2015



These quantities of processed olives are produced through companies and factories that produce processed olives of all types and pickles in the Kingdom, which include:

- Chains Trading Company.
- Al-Durra Food Products Co
- Al-Reef Company (factory still new)
- Small factories throughout the Kingdom (about 30 factories)

Pickles

To estimate the total market size of pickles of all types and varieties, the consumption volume of pickles will be determined by two basic sectors: houses and restaurants, as both considered the two main consumers of pickles in the Kingdom.

a. Household Consumption

The Department of Statistics conducted a survey of household income and expenditure in 2013 in various Governorates of the Kingdom. The survey determined the rate of per capita consumption annually for many types and varieties of food consumed by the population, in which pickles was among the list. The average per capita consumption of pickles according to the survey results was 0.25 kg annually.

The population of the Kingdom is about 9.5 million according to the General Population and Housing Census, which was conducted by the Department of Statistics in 2015. by adopting the average per capita consumption of pickles 0.25 kg/year, we can estimate the volume of household consumption of pickles by about 2,375 tons.

b. Restaurants Consumption

According to the General Census of Establishments in 2011, the number of establishments engaged in food and beverage activities in the Kingdom was 8,470 establishments distributed among establishments that provide food services and facilities that provide beverage services, in which the number of restaurants reached to 5328 establishments accounted for 63% of the total establishments operating in the food and beverage services.

In order to estimate the restaurants consumption of pickles in the Kingdom, a field survey was conducted on a sample of restaurants. A sample of restaurants was selected varying in terms of kind of served food and the number of restaurant branches, as well as their dependence on pickles within their meals and their consumption volume.

It was noted that the restaurants consumption of pickles depends mainly on the type of the served food, as some restaurants consume (10-15) kg of pickles per day, and others consume from (2 - 3) kg per day.

The survey results show that about 70% of all restaurants consume pickles, with an average consumption of about 5 kg per day. Consequently, the number of restaurants consuming pickles in the Kingdom can be estimated at 3,730 restaurants out of 5328 restaurants. The restaurants consumption of pickles during the year was estimated at 6,807 tons per year.

Total Market Size

Based on previous information concerning the consumption volume of pickles through the two sectors of houses and restaurants, the total market size of pickles in the Kingdom was estimated at 13,195 tons annually. The restaurants consume approximately 82% of the total market size of pickles. The household consumption accounts for 18% of the total market size of pickles.

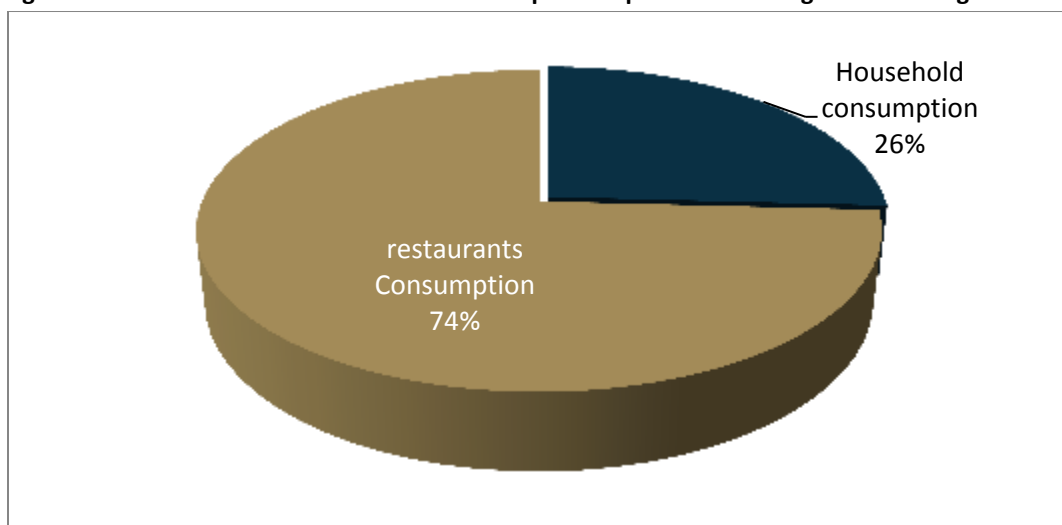
Table 12: Distribution of market size for consumption of pickles according to consuming sector

	Market Size (ton)	Percentage
Household consumption	2,375	26%
Restaurants Consumption	6,807	74%
Total	9,182	100%

Source: Household Income and Expenditure Survey, Department of Statistics, 2013

- Field Survey Results, Calculation of the Study Team

Figure8 : Distribution of market size for consumption of pickles according to consuming sector



The market need of pickles of all types is met through local production and imports. As shown in the table below, imports represent only 17% of the total market size for pickle consumption with 1,540 tons. Domestic production constitutes the largest share of the market, accounting for 83% of the total market size for the consumption of pickles.

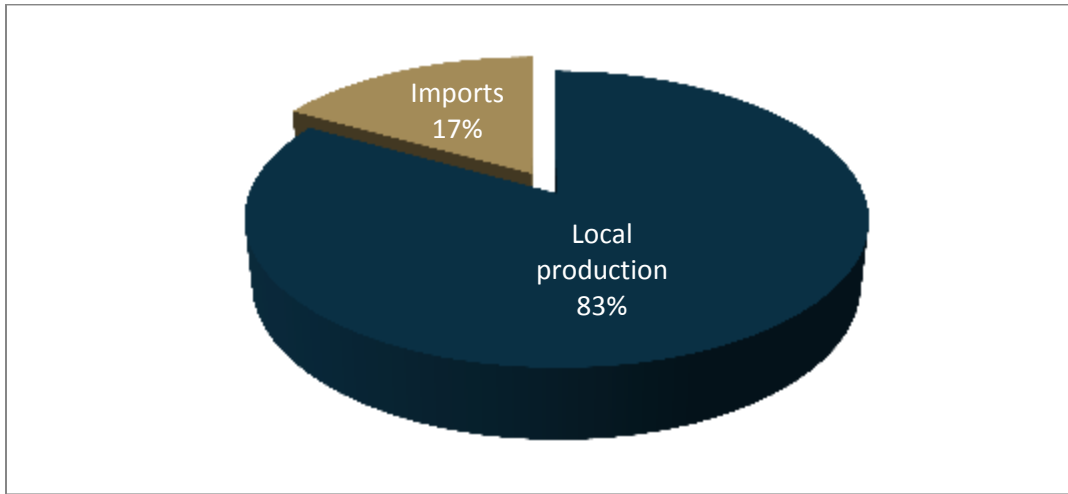
Table 13: Distribution of market size for consumption of pickles

	Market Size (ton)	Percentage
Local production	7,642	83%
Imports	1,540	17%
Total	9,182	100%

Source: -Department of Statistics, Foreign Trade, 2015

- Field Survey Results, Calculation of the Study Team

Figure9 : Distribution of market size for consumption of pickles



❖ **Imports**

The Kingdom's imports of pickles amounted to 1,540 tons in 2015, as they were divided into two main categories: pickled cucumbers and pickled vegetables other than cucumbers. It is noted that the Kingdom imports about 1,290 tons of pickled vegetables except cucumber, which accounts for 84% of the Kingdom's total imports of pickles, compared to 250 tons of pickled cucumber, which accounts for only 16% of the Kingdom's total imports of pickles (according to the Department of Statistics).

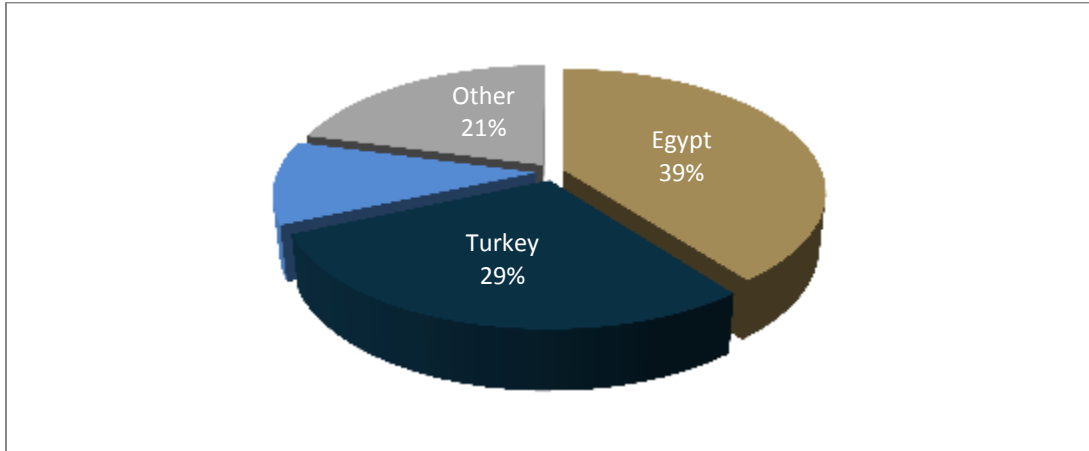
The following table shows the main countries in which the Kingdom imported pickles from in 2015. Egypt accounted for the largest share of 40% of the Kingdom's total imports of pickles estimated at 610 tons with a value of JD 468 thousand. Egypt was followed by Turkey with a quantity of imports up to 440 tons with a value of JD 329 thousand, which accounts for 29% of the Kingdom's total imports of pickles.

Table 14: The Kingdom net imports of pickles for the year 2015

	Value (thousand JD)	%	Quantity (tons)	%
Egypt	468	37%	610	40%
Turkey	329	26%	440	29%
India	154	12%	164	11%
Other	307	24%	326	21%
Total	1,258	100%	1,540	100%

Source: Department of Statistics, Foreign Trade, 2015

Figure10 : Distribution of net imports of pickles by country for 2015



❖ **Local Production**

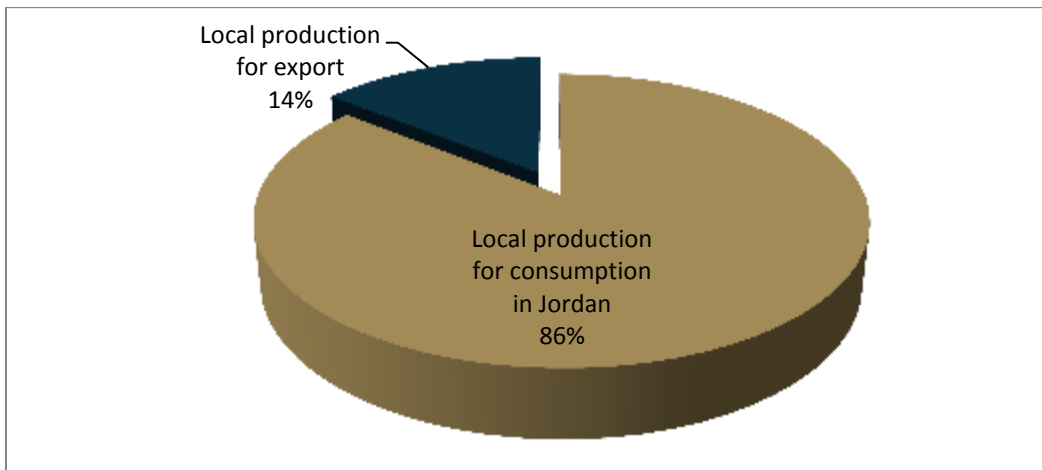
Based on market size estimates and the Department of Statistics, the total local production of pickles was estimated at 8,910 tons. 1,268 tons of locally produced pickles were exported in 2015, which accounted for 14% of the total local production of pickles. In addition, 7,642 tons of locally produced pickles were consumed locally, which accounted for 86% of the total local production of pickles.

Table 15: Distribution of local production of pickles for the year 2015

	Quantity (tons)	Percentage
Local production for consumption in Jordan	7,642	86%
Local production for export	1,268	14%
Total Local production	8,910	100%

Source: -Department of Statistics, Foreign Trade, 2015
- Field Survey Results, Calculation of the Study Team

Figure11 : Distribution of local production of pickles for the year 2015



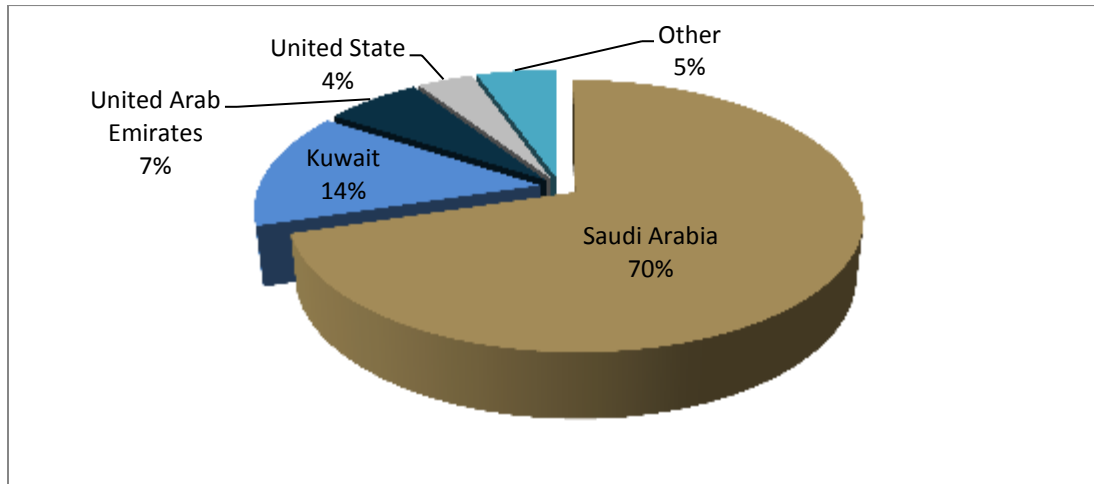
The Kingdom's national exports in 2015 reached to 1,268 tons, with a total value of up to JD 1.2 million. The table below shows the main countries in which the Kingdom exported its pickles in 2015. Saudi Arabia accounted for the largest share of exports, which accounted for 70% of the Kingdom's total exports of pickles with a volume of 890 tons and a value of JD 858 thousand. Saudi Arabia was followed by Kuwait with 14% of the Kingdom's total exports of pickles.

Table 16: Kingdom's exports of pickles for 2015

	Value (thousand JD)	%	Quantity (tons)	%
Saudi Arabia	858	70%	890	70%
Kuwait	156	13%	178	14%^
Arab Emirates	92	7%	83	7%
United State	67	5%	48	4%
Other	56	5%	69	5%
Total	1229	100%	1268	100%

Source: Department of Statistics, Foreign Trade, 2015

Figure12 : Distribution of the Kingdom's exports of pickles by countries in 2015



These quantities of pickles are produced through companies, factories and workshops, which produce pickles in the Kingdom, as the main ones include:

- Al-Durra Food Products Co.
- Small factories and workshops throughout the Kingdom (about 30 factories)

It is worth mentioning that the Chains Trading Company imports and sells pickles in the Kingdom, but it does not produce pickles in its factory.

Overview of the Main Competitors

This part of the study shows the competitors companies and factories that produce processed olives of all types and pickles in the Kingdom. These companies are considered key competitors of the project.

Company Name	Chains Trading Company
Location	Amman - North Marka
General Description	<ul style="list-style-type: none"> ▪ The Chains Trading Company was established in 1997. ▪ The number of employees in the company is about 67 employees, including 55 Jordanian employees, and 12 employees of other nationalities. ▪ The company imports and sells many products such as dairy products, dried fruits, seafood, frozen meat, Jameed (dried yogurt) and pickles. ▪ The company produces mainly various types of processed olive. ▪ The company's production volume of processed olives is estimated at about 2000- 2500 tons per year. ▪ The company's exports of processed olives is estimated at 1,000 tons annually
Main Products	<ul style="list-style-type: none"> ▪ Black olives. ▪ Various olive salads. ▪ Stuffed olives. ▪ Green olives. ▪ Black olive slices. ▪ Black olives with no kernel. ▪ Green olive slices. ▪ Green olives without kernel. ▪ Olive with oil paste.

Company Name	Al-Durra Food Products Co
Location	Irbid – Al-Hassan Industrial City
General Description	<ul style="list-style-type: none"> ▪ Al Durra Food Products Company was established in 1979. ▪ The area of the land on which the plant was established on is 15,000 m². ▪ The company produces canned food, halwah, jams, sauces, tomato paste, olives and pickles. ▪ The company's production of pickles and processed olives is estimated at about 2500 tons per year, as the company produces pickles more than processed olives.
Main Products	<p>The company produces the following olive and pickle products:</p> <ul style="list-style-type: none"> ▪ Iraqi pickles (Turshi). ▪ Pickled cucumber. ▪ Pickled Hot Mexican Pepper. ▪ Pickled cucumber. ▪ Pickled (Egyptian) cucumber. ▪ Pickled Eggplant. ▪ Black Olives (Salkine). ▪ Green Olives (Nabali). ▪ Green Olives (Salkine). ▪ Olive salad.

It is noteworthy that there is a new company for the production of processed olives, which is Al-Reef Company. The company is still new and at the beginning of their production process. The company's production capacity will be about 1,000-1,500 tons of processed olives annually. In addition, there are small factories producing processed olives and pickles in the Kingdom, estimated at 30 factories with an average production capacity of about 200 tons per factory.

3.4 Price Analysis

A field study has been conducted regarding the prices of processed olives of all types and pickles in the Kingdom, whether imported or local. The consumer price was collected for different types of processed olives available in the Jordanian market, such as the black sweetened olives, olives slices, whole green olives and others, in addition to prices of different pickles such as cucumber, mixed pickled and others.

The following tables show the prices of processed olives and pickles of different types, which were collected through the field study. The first table shows the prices of imported products, while the second shows the prices of local products. The prices of imported products of processed olives and pickles are higher than the local products.

Table 17: Prices of imported processed olives and pickles

Type	Size	Price (JD)
Processed olives		
Spanish black olives	1 kg	2.25
Black sweetened foreign Olives	1.8 kg	4.85
Foreign olive slices	1 kg	2.50
Spanish olive slices	0.2 kg	0.90
Pickles		
Pickled cucumber	2 kg	4.20
Mixed Pickles	1 kg	1.70- 2.00
Pickled broccoli	1 kg	2.75
Pickled Asparagus	1 kg	2.70
Pickled turnip	1 kg	2.75

Table 18: Prices of processed olives and pickles produced locally

Type	Size	Price (JD)
Pickles		
First Class Pickled Cucumber	1 kg	1.60
Second Class Pickled Cucumber	1 kg	1.25
Third Class Pickled Cucumber	1 kg	0.70-1.10
Mixed Pickles	1 kg	2.20
Processed Olives		
Medium size olive fruit	2.5 kg	4.00
Medium size olive fruit	2 kg	3.60
Olive slices	2 kg	4.05

3.5 Marketing Strategy

Target Market

The project targets the following categories:

- The Jordanian market of wholesalers, retail stores, restaurants, hotels, etc.
- Export to foreign markets.

Expected products

The expected project products include the following:

- Processed Olive of various types (green, black salted, black sweetened, sliced).
- Pickles of various types such as cucumbers, carrots, cauliflower, pepper, etc.
- Large sized packaging for restaurants and hotels.

Expected Prices

- The average selling price of processed olives in the first year is JD 1.40 per kg.
- The average selling price of pickles in the first year is JD 1.20 per kg.

Promotion

The project's promotional strategy includes the following:

- A factory website.
- Brochure about the project.
- Advertisement through websites.
- Advertisements in local newspapers.

Selling

The sales strategy of the project is as follows:

- Selling to wholesalers and retail stores.
- Selling to restaurants and hotels.
- Export to other countries.

Services

The project's delivery strategy includes:

- Focusing on the quality of materials used in the production of olives and pickles.
- Maintaining permanent and continuous cleanliness of factory and storage places.
- Maintaining the cleanliness of used tools, furniture and various facilities and equipment.
- Respecting the rules of health protection, cleanliness and public safety.

- Continuous Maintenance of equipment.
- Commitment to deadlines and time with customers.
- Credibility when dealing with customers.

3.6 The Expected Market Share

The table below shows the expected market share of the project, according to the following assumptions:

- Exports account for 50% of the factory's production of processed olives.
- Exports account for 50% of the factory's production of pickles.
- It is expected to start work in the proposed project in 2020.
- The market growth rate for processed olives and pickles was estimated at 3% per year from 2015 to 2020, with the expected market size to become as follows:

	2015	2016	2017	2018	2019	2020
Expected market size of processed olives (tons)	6,156	6,341	6,531	6,727	6,929	7,136
Expected market size of pickles (tons)	9,182	9,457	9,741	10,033	10,334	10,644

Table 19: Expected market share of the project

Statement	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year	Eighth year	Ninth	Tenth year
Processed Olives - Tons	1,200	1,380	1,587	1,825	2,000	2,000	2,000	2,000	2,000	2,000
Pickles - Tons	800	920	1,058	1,217	1,500	1,500	1,500	1,500	1,500	1,500
Local sales of processed olive -ton	600	690	793.5	912.5	1000	1000	1000	1000	1000	1000
Local sales of pickles - tons	400	460	529	608.5	750	750	750	750	750	750
Expected market size of the processed olives	7,136	7,351	7,571	7,798	8,032	8,273	8,521	8,777	9,040	9,312
Expected market size of pickles	10,644	10,964	11,293	11,631	11,980	12,340	12,710	13,091	13,484	13,889
Expected market share of processed olives (market share) *	8%	9%	10%	12%	12%	12%	12%	11%	11%	11%
Expected market share of pickles (market share) *	4%	4%	5%	5%	6%	6%	6%	6%	6%	5%

* This market share is the share of the local market, as the factory is expected to have some exports for its products.

4. Technical study

4.1 The Designed Project Capacity

The following table shows the designed capacity of the project, the total capacity of the factory is 3,500 tons per year, with a processed olives production capacity of 2,000 tons per year, and a pickles production capacity of 1,500 tons per year.

Table 20: the project Designed capacity

Statement	Number
Various Processed Olives - Tons	2,000
Pickles - Tons	1,500
Total	3,500

The following table shows the required areas of the project to reach the designed capacity. It requires the purchase of land with an area of 20,000 m², and the establishment of buildings and warehouses with a total area of 4500 m².

Table 21: Areas required for the project

Statement	Unit
Land m ²	20,000
Buildings m ²	2,500
warehouses m ²	2,000

4.2 The Required Fixed Assets

The following table shows the material resources required for the project.

Table 22: the required fixed assets

Statement	Unit	Price	Value (JD)
Land m2	20,000	15	300,000
Buildings m2	2,500	150	375,000
warehouses m2	2,000	100	200,000
Machinery and equipment	-	-	2,900,000
Transportation vehicles	3	25,000	75,000
Information Technology	-	15,000	15,000
Other	-	-	100,000
Total			3,965,000

* The figures were estimated from the reality of the Market Study

The processed olive production line will contain the following equipment and machinery:

1. Reception line	
▪ Dumping Barrels	▪ Elevator
▪ Recalibrating Machine	▪ Conveyers
▪ Stermer	▪ Underground Tanks
▪ Special Pumps	▪ Pipes
▪ Electrical Board	
2. Grading Line	
▪ Special Tanks For Soda, Brine Preparation And Water	▪ Special Elevator
▪ Remove Olives Root Machine	▪ Water Supply Equipments
▪ Grading Machine	▪ Dumping Barrels
▪ Inspection Belts	▪ Electrical Board
3. Pitting and slicing line	
▪ Reception Hopper	▪ Automatic Pitting Machine
▪ Elevator	▪ Densimeter
▪ Inspection Belt	▪ Washing Machine
4. Pitting and stuffing line	
▪ Reception Hopper	▪ Automatic Pitting And Stuffing Machine
▪ Densimeter	▪ Inspection Belt
5. canning Line	
▪ Reception Hopper With Elevator And Dumping Barrels	▪ Inspection Belt
▪ Hot Water Washing Machine	▪ Rotary Table And Conveyers For Olives
▪ Automatic Filling Line	▪ Manual Weight Control
▪ Brine Dosifying Machine	▪ Automatic Closing Machine
▪ Automatic Closing Machine For Jars	▪ Semiautomatic Closing Machines
▪ Vacuum Detector For Jars	▪ Pasteurizer
▪ Washing And Drying Tunnel	▪ Sterelizer
▪ Codfier	▪ Label Machine For Cans And Jars
▪ Manual Carton Boxes Filling Conveyer And Automatic Sealer For Boxes	▪ Conyers

The pickles production line in the factory will contain the following equipment and machinery:

1. Reception line	
▪ Tanks	▪ Elevator
▪ Conveyers	▪ Special pump
▪ Pipes	▪ Barrels for washing
2. grading and pickling line	
▪ elevator	▪ Dumping Barrels
▪ Inspection belt	▪ grading machine
▪ Water Supply Equipments	▪ pickling Barrels
3. packaging Line	
▪ Reception Hopper With Elevator And Dumping Barrels	▪ Inspection Belt
▪ Hot Water Washing Machine	▪ Rotary Table And Conveyers For Olives
▪ Automatic Filling Line	▪ Manual Weight Control
▪ Brine Dosifying Machine	▪ Automatic Closing Machine
▪ Automatic Closing Machine For Jars	▪ Semiautomatic Closing Machines
▪ Vacuum Detector For Jars	▪ Pasteurizer
▪ Washing And Drying Tunnel	▪ Sterelizer
▪ Codfier	▪ Label Machine For Cans And Jars
▪ Manual Carton Boxes Filling Conveyer And Automatic Sealer For Boxes	▪ Conyers

4.3 The Required Human Resources

The following table shows the human resources required for the project. The number of employees required is about 60 employees with total salaries up to JD 411.6 thousand annually.

Table 23: Human resources required for the project

Item	Number of Employees	Salary (JD/monthly)	Total salary (JD/annually)	Operational (JD/annually)	Administrative (JD/annually)
Director General	1	3,000	36,000		36,000
Managers	5	1,500	90,000		90,000
Supervisors and production and quality engineers	8	800	76,800	76,800	
Technicians	12	500	72,000	72,000	
Accountants, administrators and warehouses	6	500	36,000		36,000
Workers	28	300	100,800	100,800	
Total	60		411,600	249,600	162,000

The following table shows the general job description of the main jobs required for the project.

Table 24: General Job description of the jobs required for the project

Job	Job Description
Director General	<ul style="list-style-type: none"> ▪ Planning, organizing, directing and managing all processes and operations in the factory. ▪ Following-up the matters and the performance of all sections in the factory, and giving them the necessary guidance. ▪ Following-up the matters and the performance of subsidiary departments and directorates of the factory, and implementing the directives. ▪ Developing initiative and processes plans that reduce manufacturing costs and contribute to the company's interests. ▪ Identifying the factory needs of human resources, industrial equipment and internal facilities, and following-up their provision. ▪ Upgrading the equipment and devices constantly to increase the production capacity of the factory, and developing advanced plans to increase the production and quality standards. ▪ Supervising the development and implementation of occupational safety and health plans and procedures, and providing their supplies.

Job	Job Description
	<ul style="list-style-type: none"> • Supervising the studies and the collection of statistical and economic data, to assist in the preparation of budget estimates.
Section manager	<ul style="list-style-type: none"> ▪ Supervising the performance of all processes and operations in the section. ▪ Setting the daily and monthly plans for the employees belonging to the section. ▪ Reporting and reviewing periodic reports and, submitting them to the Factory Manager. ▪ Determining the needs of the required human resources to work in the section. ▪ Working on the use of advanced technologies that serve the work and the product. ▪ Providing the necessary guidance to employees, and motivate them to work and use initiative. ▪ Supervising the application of quality standards and procedures applicable in the Company.
Supervisor	<ul style="list-style-type: none"> ▪ Direct supervision of labor. ▪ Ensure daily productivity of workers. ▪ Making sure to maintain the workflow through guidance and oversight. ▪ Daily inspection tours.
Engineer	<ul style="list-style-type: none"> ▪ Identifying the needs of raw materials, and preparing orders for the inputs of production processes in cooperation with the competent directorates, and reporting them to the Procurement Directorate. ▪ Following-up maintenance work in the production facility by specialists, and reporting on maintenance or replacement of malfunctioning equipment. ▪ Reporting all matters relating to the progress of the production process achievements, failures and the reasons. ▪ Developing and implementing the production plan regarding quantities and standards, and in scheduled dates. ▪ Reducing the amount of damaged products during the production processes, as well as studying the causes and providing the appropriate solutions. ▪ Developing regulations and procedures of quality control to examine batches of raw materials arriving to the warehouse. ▪ Following up the implementation of the quality policy in factory, and following-up corrective and preventive actions, and reporting them periodically. ▪ Supervising the maintenance and repair of machines used in the

Job	Job Description
	<p>production process.</p> <ul style="list-style-type: none"> ▪ Documenting the maintenance operations and processes, and opening a special file for each machine individually to see its cost. ▪ Supervising the implementation of occupational safety and health for all employees.
Technician	<ul style="list-style-type: none"> ▪ Implementing the preventive and corrective electrical maintenance on the machines, equipment and production lines in the factory, in accordance with the approved procedures and instructions. ▪ Monitoring the efficiency of machines and equipment in the production section, and informing the production shift supervisor for any misuse of these machines. ▪ Diagnosing electrical malfunctions occurring at production lines and machines. ▪ Installing electrical installations required for all factory departments and sections. ▪ Implementing electrical modifications and installations required on machines and equipments, after being examined and approved by the maintenance engineer. ▪ Monitoring the main transformers and circuit breakers, and reading the electrical load, voltages and temperatures according to specific times. ▪ Examining the main and sub-Electrical Distribution Panels for all factory buildings and facilities, in accordance with the programs developed to ensure their readiness and effectiveness.
Worker	<ul style="list-style-type: none"> ▪ Preparing the materials used in production. ▪ Operating machines and equipments in the factory. ▪ Monitoring the production line and make the necessary tasks. ▪ Applying production and quality plans in all production processes. ▪ Applying occupational health and safety standards in the factory. ▪ Reporting any malfunction in the machines to the maintenance technician.

4.4 Special Conditions

Table 25: Requirements and Specifications

Statement	Requirements and Specifications
Location	<ul style="list-style-type: none"> ▪ The location shall be in an industrial area, or far from residential areas and communities and city centers. ▪ The area shall be free from pollution sources, such as unpleasant odors, flies, swamps, dust and other sources, and it shall not be exposed to water flooding. ▪ The location shall include basic services such as roads, electricity, water and other.
Area	<ul style="list-style-type: none"> ▪ The land area shall be wide and spacious for the main components of the factory that include the production area, the warehouse, the cafeteria and offices area, and taking into account the possibility of expansion.
Production Area	<ul style="list-style-type: none"> ▪ The Production Area shall be sufficient for the size of the used machines and equipments, so that there is appropriate distance between them and does not obstruct movement. ▪ Shall have a streamlined design; allow performing the work easily in regular order in all the different phases of work, from the arrival of raw materials to producing the final product. ▪ The floors shall be from watertight, non-absorbent, easy cleaning and non-slippery material. In addition, the materials shall not be affected by industrial detergents, or acids used in cleanliness. Floors shall be flat and free from cracks and holes, and shall be designed to be downwardly inclined toward the drainage hole. ▪ The walls shall be painted with oily paint, and shall be smooth and easy to clean. ▪ The doors shall be designed of watertight, non-absorbent, smooth materials with self-closing technique. ▪ The windows shall be designed in a way that prevent the accumulation of dust and dirt, and shall be supplied with suitable wire mesh to prevent the entry of insects and rodents. ▪ The lighting shall be appropriate in all the building facilities, as artificial lighting can be used.
Electrical Installations	<ul style="list-style-type: none"> ▪ All electrical connections and installation shall be accomplished in accordance with technical standards.
Water sources	<ul style="list-style-type: none"> ▪ The used water shall be from a known and healthy source, proven to be suitable for human consumption based on laboratory tests, and ensuring of water quality on a regular basis. ▪ The water tank shall be far from pollution sources. The water shall be taken from the tank through a pipe network to places of use. The water tank shall be cleaned and sterilized on a regular basis.
Bathrooms	<ul style="list-style-type: none"> ▪ Bathrooms shall be provided with ventilation fan and exhaust box. ▪ Appropriate number of Bathrooms shall be provided for the number of employees

	<p>in the factory. Bathrooms shall not be placed directly to preparation and production areas.</p> <ul style="list-style-type: none"> ▪ Bathrooms shall be provided with soap, paper towels or hot air, and the use of towels shall be prohibited.
Waste and Water Disposal	<ul style="list-style-type: none"> ▪ Waste and water are disposed to the sewerage network or to an absorption tank, which is far from the surface drinking water tanks of not less than ten meters, and with half meter less than its level. ▪ All drainage holes shall have tightly closed covers, and shall not be left open.
Equipment	<ul style="list-style-type: none"> ▪ All the tools and equipment used in production shall be useable and in good condition, and shall be made from rustproof materials. ▪ Providing the appropriate number of refrigerators for food preservation, whether preliminary or final product at the appropriate temperature for cooling or freezing. ▪ Ventilation fans shall be available in preparation and production areas in appropriate number and size. ▪ Electric shock devices for insects shall be available, in appropriate number and size, and shall be hanged on the production hall walls and not above the production lines.
Warehouses and Stores	<ul style="list-style-type: none"> ▪ Shall be provided with adequate number of metal shelves, as the lower shelf shall be at least 20 cm above the earth's surface. ▪ Food items shall be preserved in a special warehouse at the right temperature, and shall be separate from the other materials warehouse, such as raw materials and cleaning materials and other. ▪ The storage and transportation of food shall be carried out under conditions that prevent their contamination, spoilage or containers damage. They shall be stacked in orderly manner to facilitate the monitoring process. ▪ Taking into account the absence of moisture sources inside the store, so as not to affect the food items.
Safety devices	<ul style="list-style-type: none"> ▪ Safety requirements shall be in place, according to the Civil Defense instructions.
Hygiene and Cleanliness	<ul style="list-style-type: none"> ▪ Attaching great importance to the hygiene and cleanliness of all factory facilities, using the proper detergents and disinfectants. The cleanliness of the used tools and equipment, and the use of appropriate detergents. ▪ Using paper towels to clean the factory tables. ▪ Collecting waste in plastic bags or sealed containers.
Ventilation	<ul style="list-style-type: none"> ▪ The factory shall face the wind, so that the ventilation processes run properly. ▪ Using ventilation systems such as the closed ventilation system or the exhaust fan system to change the air at the factory, with the control of the heat and moisture as well. In addition, the ventilation systems will reduce the microbial load, and clean the facility atmosphere.

4.5 The Required Licenses

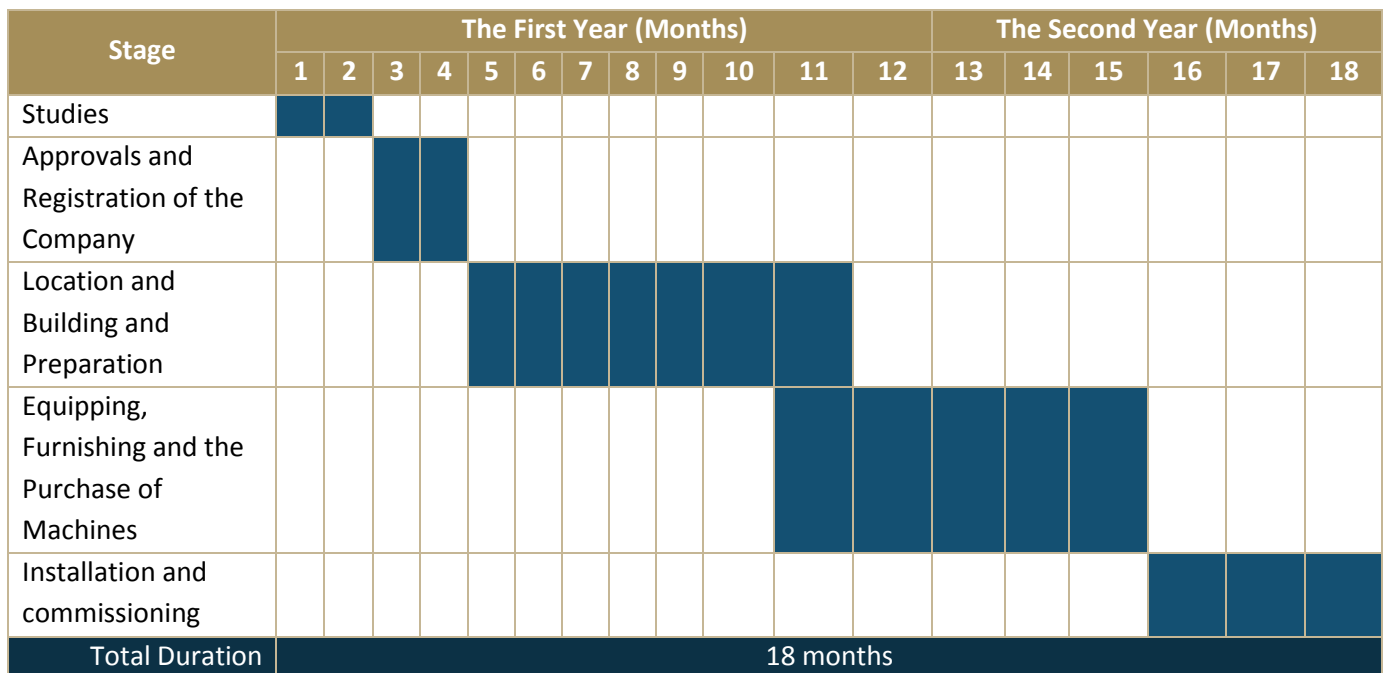
The following table shows the necessary licenses from various authorities to implement the project.

Table 26: Licenses Required for the Project

Statement	Analysis
Company Registration	<ul style="list-style-type: none"> ▪ Ministry of Industry and Trade ▪ Chamber of Industry
The Establishment of the Factory	<ul style="list-style-type: none"> ▪ Concerned municipality / Concerned Industrial Area / Electricity / Water etc...
Factory Operation	<ul style="list-style-type: none"> ▪ Income and Sales Tax Department ▪ Social Security Corporation

4.6 Project Timeline

The following figure shows the timeline to implement the project, which amounts to 18 months, as follows:



5. Financial Study

5.1 Financial Assumptions

The following table illustrates the financial assumptions of the project.

Table 27: The Financial Assumptions of the Project

Item	Assumption
Inflation Rate	3%
Financing Structure	Equity constitutes 75% of the investment and loans constitute 25%
Interest Rate	9%
Working Capital	6 months of annual cost
Pre-Operating Expenses	2% of total investment
Tax Rate	5%
Exemptions	Fixed assets are exempted from customs
Vegetables Cost	JD 250 per kg
Olives cost	JD 700 per kg
Salt and Additives cost	1% of total revenues
Packing and packaging materials	5% of total revenues
Staff Benefits	25% of salaries
Annual Salaries Increase	10%
Staff incentives	JD 1000 annually for 5 years, then it will increase JD 1000 annually
Marketing Expenses and commissions	9% of total revenues for the first year, then 10% of total revenues
Assets Depreciation Rate	4%-20% of the asset value
Maintenance Cost	1% of total investment in the first year, with 5% annually increase
Growth Rate Of Expenses	3%
Cost of electricity and Diesel	2% of total revenues
water	1% of total revenues
Accounts Receivable	1 month in the first year, then two months in the second year
Inventory	6 months of annual cost
Accounts payables	10% of annual cost
Dividends	70% of profit
Reserves	30% of profit

5.2 Investment Cost

The project's Investment cost is estimated at JD 5.1 million distributed among fixed assets of JD 4.2 million, working capital of JD 818 thousand, and pre-operating expenses JD 102 thousand.

The following table shows the project's Investment cost.

Table 28: the project's investment cost

Item	Value (in thousand JD)
Fixed assets	4,190
Pre-operating expenses	102
Working capital	818
Total	5,110

5.3 Financing

The project will be financed with the shareholders by 75% which is estimated at about JD 5.1 million, while the other 25% of the project investment cost will be financed through bank loans of about JD 1.3 million.

The following table shows the financing structure for financing the project, where:

- The interest rate is 9%.
- The loan will be paid during 7 years.

Table 29: Project financing schedule

Item	Value (in thousand JD)	%
Equity	3,832.8	75%
Loan	1,277.6	25%
Total	5,110	100%

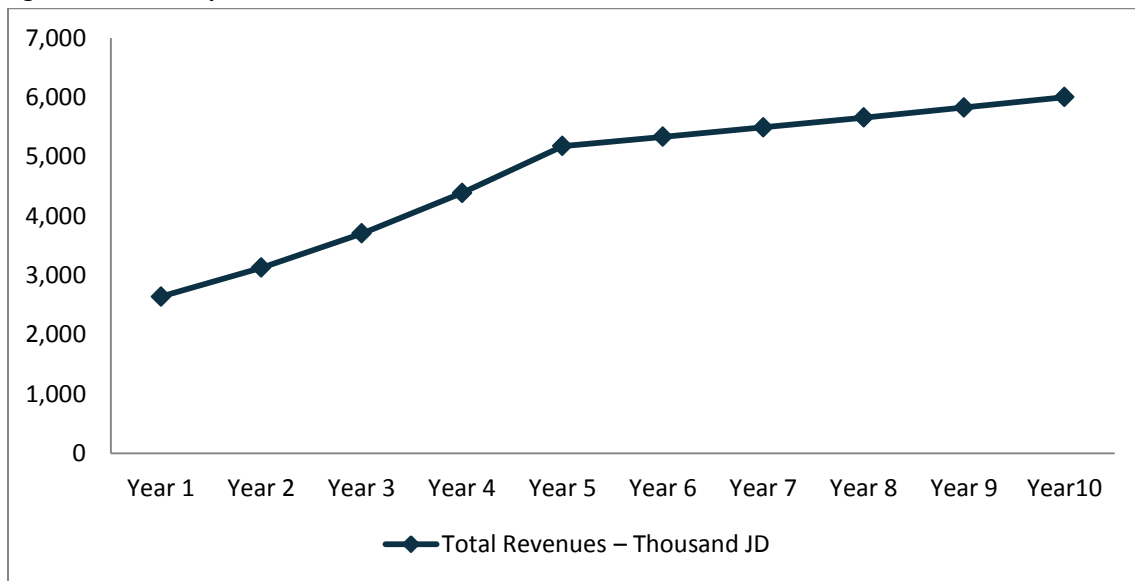
5.4 Revenues

The following table shows the total revenues of the project, where it is noted that the revenues in the first year amounts to about JD 2.6 million, and increased to reach up to JD 6 million in the tenth year, due to the growth in sales.

Table 30: The Expected Revenues

Statement	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Processed olives- ton	1,200	1,380	1,587	1,825	2,000	2,000	2,000	2,000	2,000	2,000
Pickles- ton	800	920	1,058	1,217	1,500	1,500	1,500	1,500	1,500	1,500
The price of Processed olives- per ton	1,400	1,442	1,485	1,530	1,576	1,623	1,672	1,722	1,773	1,827
The price of pickles- per ton	1,200	1,236	1,273	1,311	1,351	1,391	1,433	1,476	1,520	1,566
Total Revenues – Thousand JD	2,640	3,127	3,704	4,387	5,177	5,332	5,492	5,657	5,827	6,002

Figure13 : Total expected revenues



5.5 The Projected Costs

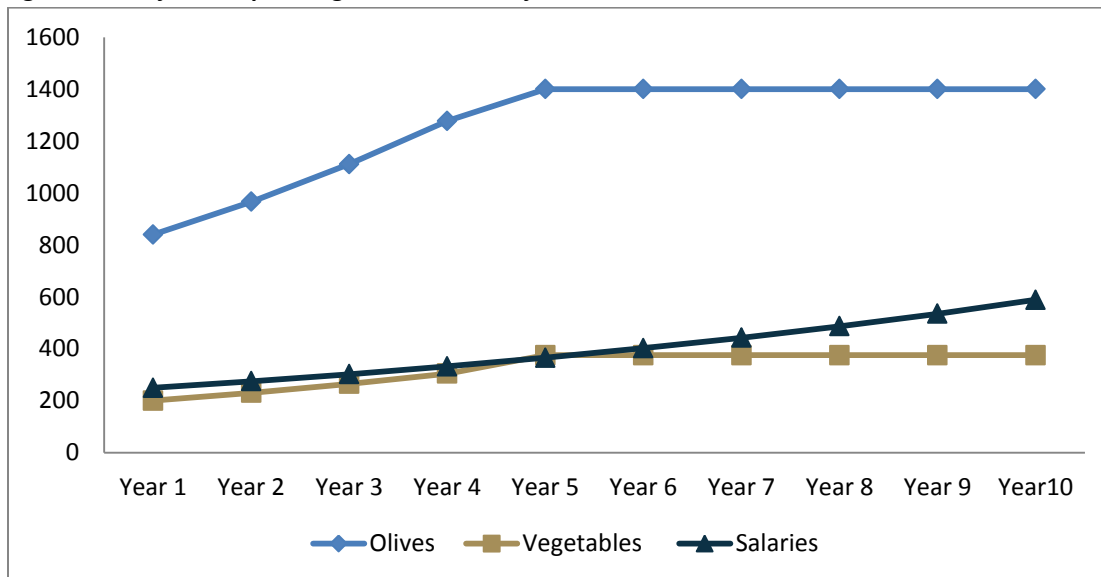
Operating Costs

The following table shows the project's operating costs according to the previous assumption over ten years. Olives cost in Year 1 amounted to JD 840 thousand which increase to reach JD 1.4 million in Year 10. Moreover, the vegetables cost amount to JD 200 thousand in Year 1 which increases to JD 375 thousand in the year 10.

Table 31: Operating Costs

Operating Costs (in thousand JD)										
Statement	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Olives	840.0	966.0	1110.9	1277.5	1400.0	1400.0	1400.0	1400.0	1400.0	1400.0
Vegetables	200.0	230.0	264.5	304.2	375.0	375.0	375.0	375.0	375.0	375.0
Electricity	52.8	62.5	74.1	87.7	103.5	106.7	109.9	113.1	116.5	120.0
Water	26.4	31.3	37.0	43.9	51.8	53.3	54.9	56.6	58.3	60.0
Salt And Additives	26.4	31.3	37.0	43.9	51.8	53.3	54.9	56.6	58.3	60.0
Salaries	249.6	274.6	302.0	332.2	365.4	402.0	442.2	486.4	535.0	588.5
Staff Benefits	62.4	68.6	75.5	83.1	91.4	100.5	110.5	121.6	133.8	147.1
It Cost	5.0	5.3	5.5	5.8	6.1	6.4	6.7	7.0	7.4	7.8
Depreciation	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0
Maintenance	41.9	44.0	46.2	48.5	50.9	53.5	56.2	59.0	61.9	65.0
Packing And Packaging Materials	132.0	156.4	185.2	219.4	258.9	266.6	274.6	282.9	291.4	300.1
Total	1996.5	2229.9	2498.0	2806.1	3114.8	3177.3	3244.9	3318.2	3397.5	3483.6

Figure14 : Projected Operating Costs of the Project



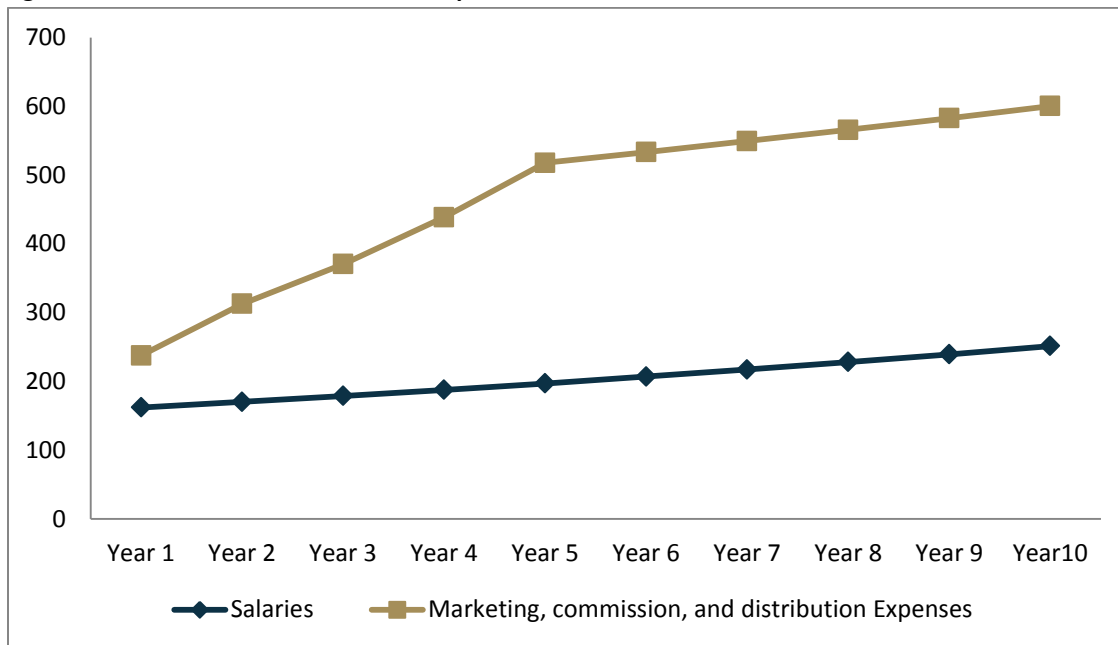
Administrative Expenses

The following table shows the projected administrative expenses of the project. Employees' salaries reach JD 162 thousand in the first year and increase to JD 251.3 thousand in the tenth year. The marketing expenses are about JD 237.6 thousand in the first year and increase to reach JD 600.2 thousand in the tenth year.

Table 32: General and Administrative Expenses

General and Administrative Expenses (in thousand JD)										
Statement	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Salaries	162.0	170.1	178.6	187.5	196.9	206.8	217.1	228.0	239.3	251.3
Staff Benefits	40.5	42.5	44.7	46.9	49.2	51.7	54.3	57.0	59.8	62.8
Staff Incentives	1.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	5.0	6.0
Stationery	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8
Professional Fees	3.0	3.2	3.3	3.5	3.6	3.8	4.0	4.2	4.4	4.7
Marketing, commission, and distribution Expenses	237.6	312.7	370.4	438.7	517.7	533.3	549.3	565.7	582.7	600.2
Other Expenses	10.0	10.5	11.0	11.6	12.2	12.8	13.4	14.1	14.8	15.5
Amortization	102.2									
Total	556.8	540.5	609.5	689.8	781.3	810.9	841.7	873.7	906.8	941.3

Figure15 : General and Administrative Expenses



5.6 Projected Financial Statements

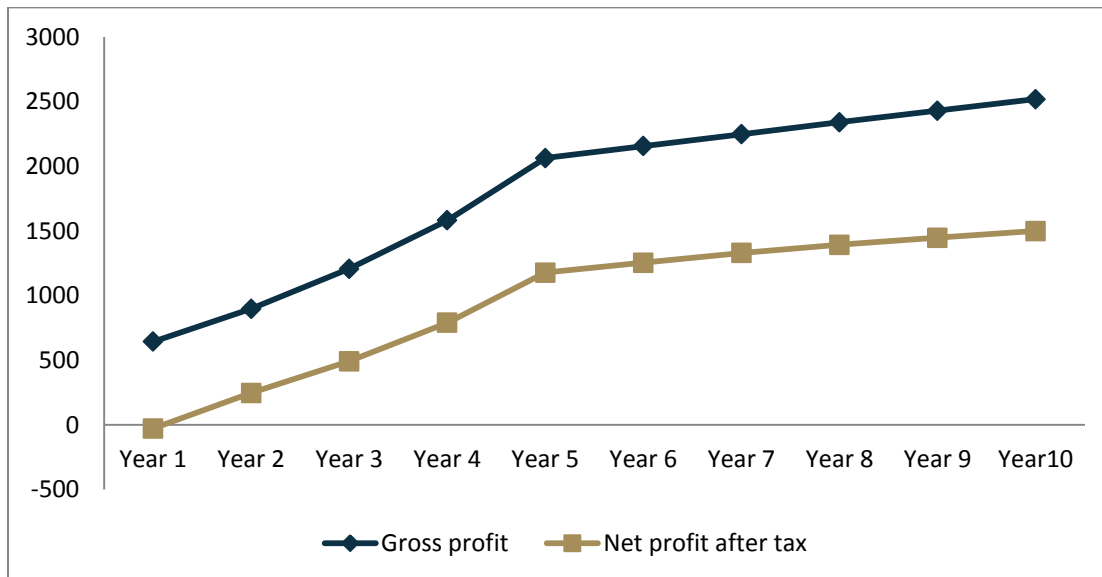
Income Statement

The following table shows the projected income statement of the project. It indicates that gross profit will increase from JD 634.5 thousand in the first year to JD 2.5 million in the tenth year. The net profit after tax will increase from JD 246.7 thousand in the second year to JD 1.5 million in the tenth year.

Table 33: The Projected Income Statement

Income Statement (in thousand JD)										
Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Revenues	2,640.0	3,127.1	3,704.0	4,387.4	5,177.3	5,332.7	5,492.6	5,657.4	5,827.1	6,002.0
Operating costs (cost of sales)	1,996.5	2,229.9	2,498.0	2,806.1	3,114.8	3,177.3	3,244.9	3,318.2	3,397.5	3,483.6
Gross profit	643.5	897.2	1,206.0	1,581.3	2,062.6	2,155.4	2,247.7	2,339.3	2,429.6	2,518.3
Administrative expenses	556.8	540.5	609.5	689.8	781.3	810.9	841.7	873.7	906.8	941.3
Net profit	86.7	356.7	596.5	891.5	1,281.3	1,344.4	1,406.0	1,465.6	1,522.8	1,577.1
financial expenses	115.0	97.0	79.0	61.0	43.0	25.0	7.0	-	-	-
Net profit before tax	(28.3)	259.7	517.5	830.5	1,238.3	1,319.5	1,399.0	1,465.6	1,522.8	1,577.1
Tax	-	13.0	25.9	41.5	61.9	66.0	70.0	73.3	76.1	78.9
Net profit after tax	(28.3)	246.7	491.6	789.0	1,176.4	1,253.5	1,329.1	1,392.3	1,446.6	1,498.2

Figure16 : Projected Income Statement



Projected Balance Sheet

The following table shows the projected balance sheet of the project during the first ten years. It indicates that total assets will increase from JD 5 million in the year of incorporation to about JD 7 million in the tenth year. The Total liabilities will decrease from JD 1.3 million in the first year to about JD 348 thousand in the tenth year. Moreover, the Shareholders' Equity will increase from JD 3.8 million in the year of incorporation to reach JD 6.7 million in the tenth year.

Table 34: Projected Balance Sheet

Projected Balance Sheet (in thousand JD)											
Statement	Year of incorporation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Assets											
Cash	818	467	349	487	684	794	1,307	1,966	2,720	3,490	4,276
Receivables		232	519	615	728	859	885	912	939	967	996
Inventory		520	598	688	791	888	888	888	888	888	888
other	-	53	63	74	88	104	107	110	113	117	120
Total Current Assets	818	1,272	1,529	1,863	2,291	2,645	3,187	3,875	4,660	5,462	6,280
Fixed Assets	4,292	4,292	4,292	4,292	4,292	4,482	4,482	4,482	4,482	4,482	4,482
Cumulative Depreciation	-	462	822	1,182	1,542	1,902	2,262	2,622	2,982	3,342	3,702
Pre- operating expenses	-										
Net Fixed Assets	4,292	3,830	3,470	3,110	2,750	2,580	2,220	1,860	1,500	1,140	780
Total Assets	5,110	5,102	4,999	4,973	5,041	5,225	5,407	5,735	6,160	6,602	7,060
Shareholders Equity and Liabilities											
Accrued Expenses and Payables		200	223	250	281	311	318	324	332	340	348
Long Term Loans	1,278	1,078	878	678	478	278	78	-	-	-	-
Total Liabilities		1,277	1,101	927	758	589	395	324	332	340	348
Shareholders Contributions	3,833	3,833	3,833	3,833	3,833	3,833	3,833	3,833	3,833	3,833	3,833
Retained Earnings		(8)	66	213	450	803	1,179	1,577	1,995	2,429	2,879
Shareholders' Equity	3,833	3,824	3,898	4,046	4,283	4,635	5,012	5,410	5,828	6,262	6,711
Shareholders Equity and Liabilities	5,110	5,102	4,999	4,973	5,041	5,225	5,407	5,735	6,160	6,602	7,060

Cash Flow Statement

The following table shows the projected cash flow statement of the project during the first ten years. It indicates that the cash flow from operation will increase from JD 256 thousand in the second year to JD 1.8 million in the tenth year; while the Cash at the ending period will increase from JD 818 thousand in the year of incorporation to JD 4.3 million in the tenth year.

Table 35: The Expected Cash Flows Statement

Cash Flow Statement (in thousand JD)											
Statement	Year of incorporation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Operation Activities											
Net Profit	-	(28)	247	492	789	1,176	1,253	1,329	1,392	1,447	1,498
Depreciation	-	462	360	360	360	360	360	360	360	360	360
Change In Working Capital	-	(605)	(351)	(170)	(199)	(213)	(23)	(23)	(23)	(24)	(24)
Cash Flow From Operation	-	(172)	256	681	950	1,324	1,591	1,666	1,729	1,783	1,834
Investing Activities											
Fixed Assets	(4,292)	-	-	-	-	(190)	-	-	-	-	-
Cash From Investing Activities	(4,292)	-	-	-	-	(190)	-	-	-	-	-
Financing Activities											
Capital (Equity)	3,833	-									
Loan	1,278	(200)	(200)	(200)	(200)	(200)	(200)	(78)	-	-	-
Dividends		20	(173)	(344)	(552)	(823)	(877)	(930)	(975)	(1,013)	(1,049)
Cash Flow From Financing Activities	5,110	(180)	(373)	(544)	(752)	(1,023)	(1,077)	(1,008)	(975)	(1,013)	(1,049)
Net Cash Flow	818	(352)	(117)	137	197	110	513	658	754	770	786
Cash At The Beginning Period	0	818	467	349	487	684	794	1,307	1,966	2,720	3,490
Cash At The Ending Period	818	467	349	487	684	794	1,307	1,966	2,720	3,490	4,276

5.7 Financial, Economic and Social Analysis

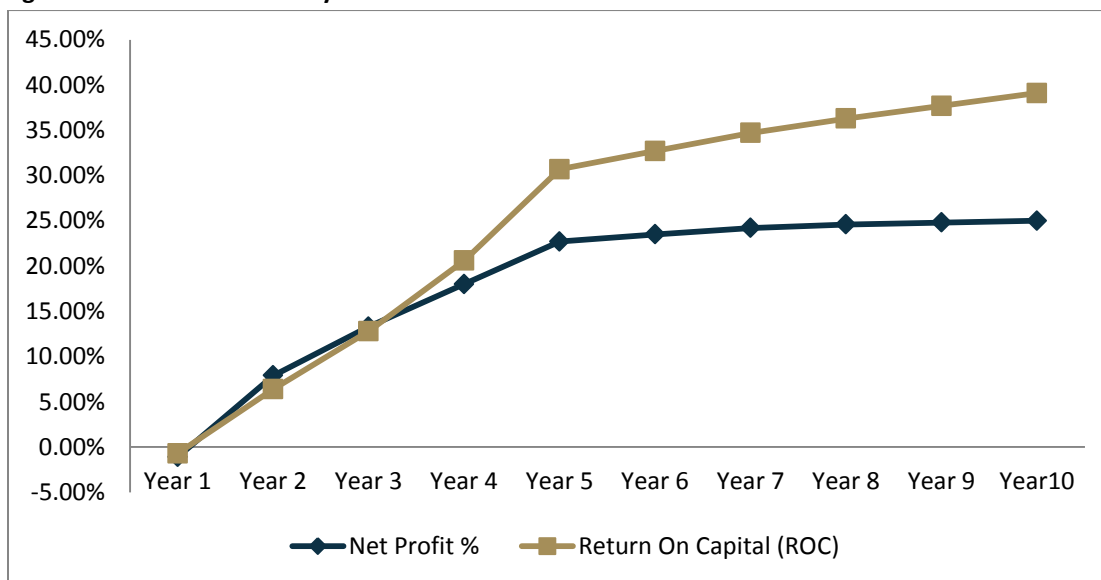
Financial Analysis

The following table shows the financial analysis of the project. It indicates that the net profit ratio will increase from 7.9% in the second year to 25% in the tenth year, and the return on investment will increase from 4.9% in the first year to 21.2% in the tenth year.

Table 36: Financial Analysis

Financial Analysis (In Thousand JD)										
Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Assets	5,102	4,999	4,973	5,041	5,225	5,407	5,735	6,160	6,602	7,060
Revenues	2,640	3,127	3,704	4,387	5,177	5,333	5,493	5,657	5,827	6,002
Profits	(28)	247	492	789	1,176	1,253	1,329	1,392	1,447	1,498
Capital (Equity)	3,833	3,833	3,833	3,833	3,833	3,833	3,833	3,833	3,833	3,833
Net Profit %	-1.1%	7.9%	13.3%	18.0%	22.7%	23.5%	24.2%	24.6%	24.8%	25.0%
Return On Investment (ROI)	-0.6%	4.9%	9.9%	15.7%	22.5%	23.2%	23.2%	22.6%	21.9%	21.2%
Return On Capital (ROC)	-0.7%	6.4%	12.8%	20.6%	30.7%	32.7%	34.7%	36.3%	37.7%	39.1%
Net Profit On Revenues	-1.1%	7.9%	13.3%	18.0%	22.7%	23.5%	24.2%	24.6%	24.8%	25.0%
Assets Turnover (Time)	0.52	0.63	0.75	0.87	0.99	0.99	0.96	0.92	0.88	0.85

Figure17 : The Financial Analysis



Economic Analysis

The following table shows the economic analysis of the project during the first ten years, we conclude that:

- The Internal rate of return is 20.1%. It exceeded five times the risk free rate, which means the economic feasibility of the project
- The present value of the project reached about JD 6.2 million. It exceeds the net present value with JD 3.8 million, which means the economic feasibility of the project.
- The profitability index of the project reached 1.62 times, which means that the expected value of the project will increase by one time and half the investment value, which proves that the project is feasible.
- The project payback period is 6.2 years.

Table 37: the Economic Analysis

Economic Analysis (in Thousand JD)											
Statement	Year of incorporation	Year 1	Year2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Net cash flow from operating and investing activities	(3,833)	(372)	56	481	750	1,124	1,391	1,588	1,729	1,783	1,834
terminal value											6,711
Net Cash flow	(3,833)	(372)	56	481	750	1,124	1,391	1,588	1,729	1,783	8,546
Internal Rate of Return (IRR)	20.1%										
present Value	6,223										
Net present value	2,390										
Profitability Index (Time)	1.62										
Payback period (Year)	6.20										

Social Analysis

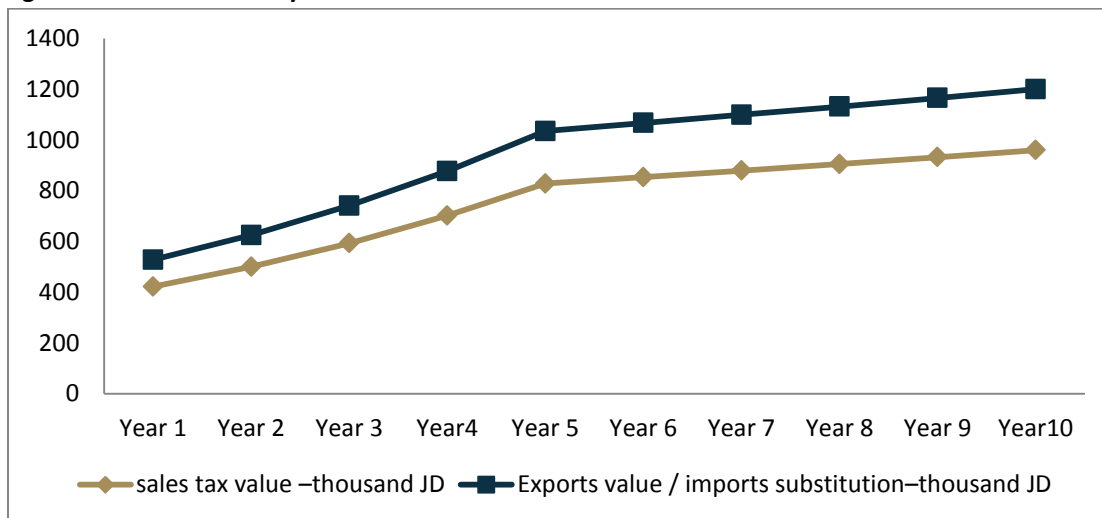
The following table shows the social analysis of the project. It is noticed that the number of staff required for the project will increase from 60 employees in the first year to 72 employees in the tenth year. The number of Jordanian employees will increase from 18 employees in the first year to reach 22 employees in the tenth year.

The added value of the project will also increase from JD 601 thousand in the first year to JD 2.5 million in the tenth year.

Table 38: the Social Analysis of the Project

Social Analysis										
Statement	Year 1	Year 2	Year 3	Year4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10
Number of Employees	60	61	62	64	65	66	68	69	70	72
Jordanian employees	18	18	19	19	19	20	20	21	21	22
The added value – thousand JD	601	900	1,171	1,500	1,922	2,039	2,160	2,285	2,415	2,548
Income tax –thousand JD	-	13	26	42	62	66	70	73	76	79
sales tax value –thousand JD	422	500	593	702	828	853	879	905	932	960
Exports value / imports substitution–thousand JD	528	625	741	877	1,035	1,067	1,099	1,131	1,165	1,200

Figure18 : The Social Analysis



6. Risk and Sensitivity Analysis

6.1 Risk Analysis

The following table shows the risk matrix analysis that may face the project.

Table 39: Project Risk Matrix

Risks	Type of Risks	Risk Assessment
Financial Risks	<ul style="list-style-type: none"> ▪ Credit Risk Credit risk represents the risk of the company's financial loss as a result of the customer's default of the contractual obligation or that of the party dealing with the company through a financial instrument. These risks are mainly caused by trade receivables and others. ▪ Liquidity Risk Liquidity risk is the risk resulting from the company's inability to meet its financial obligations at time. The company's liquidity management is to ensure as much as possible that the company always maintain enough liquidity to meet its obligations as they become due and payable in normal and emergency conditions without incurring unacceptable losses or risks that affect the company's reputation. ▪ risk of currency fluctuation Currency risk is the risk of the fluctuation of the value of 	<ul style="list-style-type: none"> ▪ The financial risks that may face the company are moderate, because the company payment method is monthly so my some restaurants and retailers will not pay ▪ There is no risk of currency exchange, because the company sales and purchases by local currency ▪ There is no risk of inflation because the company's pricing is based on a periodic basis

Risks	Type of Risks	Risk Assessment
	<p>financial instrument, due to fluctuations in foreign currency exchange rates.</p> <ul style="list-style-type: none"> ▪ inflation risk It is the risk associated with the possibility that the inflation or the rise in the cost of living might lead to the decrease the real value of the investment. 	
<p>Business risk (sector risk)</p>	<ul style="list-style-type: none"> ▪ Strategic Risk It is the risk resulting from taking bad decisions by the company's management, or implementing the decisions in a wrong way, or not taking the decisions at the right time; which leads to losses or causes loss of alternative opportunities. ▪ Legal and Regulatory Risks These risks are reflected as a result of non-compliance with laws, guidelines and instructions governing the work. Legal risks are caused by the company's break of the laws governing the work in the state in which the company operates. While regulatory risks arise from the company's violation of laws and standards issued by the regulatory authorities. ▪ Reputation Risk Reputation risk arises from influential negative public 	<ul style="list-style-type: none"> ▪ The risks are considered very low before the company's establishment, because the easiness of getting the approval of from official authorities ▪ Reputational risk is moderate, as the company deals with food products which is pickles and olives ▪ Market risk in the short term will be moderate because of the competition from other companies ▪ The imports risks is low because of their high prices in comparison with local products

Risks	Type of Risks	Risk Assessment
	<p>views which result in great losses of customers or money. It includes the actions of the company's management or its employees which project a negative image of the company, its performance and its relationships with customers and other stakeholders. Reputation risk also results from circulating rumors about the company and its activities.</p> <ul style="list-style-type: none"> ▪ Competition Risk Competition risk results from domestic and external competitors and reduces sales and profits. 	
<p>Operational Risk</p>	<p>Operational risk involves losses resulting from the failure of internal operations, human resources and systems. It includes:</p> <ul style="list-style-type: none"> ▪ IT Risks They are losses arising from downtime or systems failure due to the infrastructure, information technology, or the lack of systems, and any failure or malfunction in the systems. They include: the crash of computer systems, breakdowns in communication systems, programming errors, computer viruses and opportunities losses due to breakdown. 	<ul style="list-style-type: none"> ▪ Operational risks are very low, for the company will buy its resources from local market and process them to get pickles ▪ IT risk is very low ▪ Human resources is very low

Risks	Type of Risks	Risk Assessment
	<ul style="list-style-type: none"> ▪ Human Resources Risk Losses caused by employees or related to them (intentionally or unintentionally). It also includes acts that are intended as methods of cheating, abusing property or circumvent the law, regulations or company policy by officials or employees, as well as losses arising from the relationship with the customer, shareholders, regulators and any third party. 	
State Risk	State Risk includes politicians' interference, civil unrest, wars, financial and monetary policies and high level of debts.	<ul style="list-style-type: none"> ▪ State Risk is considered to be low, due to security and political stability; international reports indicate that State Risk is low both in medium and long terms

6.2 Sensitivity Analysis

First: Increase of Investment Cost By 10%

The following table shows the results of the sensitivity analysis when investment cost increases by 10%.

Table 40: Investment Increase by 10%

Index	Base	Impact	Change
Internal Rate of Return (IRR)	20.1%	18.6%	1.5%
The Present Value at a discount rate of 13% (in Thousand JD)	6,223	6224.7	-1.7
Net Present Value at a discount rate of 13% (in Thousand JD)	2,390	1999.9	390.1
Profitability Index (Time)	1.6	1.5	0.1
Payback period (Year)	6.2	6.6	-0.4
The Net Profit Ratio – an average of 10 years	18.3%	18.1%	0.2%
Return on Investment - an average of 10 years	16.5%	15.1%	1.4%
Return on Capital – an average of 10 years	25.0%	22.5%	2.5%
Net Profit On Revenues - an average of 10 years	18.3%	18.1%	0.2%
Assets Turnover (Time) – an average of 10 years	0.8	0.8	2.8%
The added value - an average of 10 years (in thousand JD)	1754	1753.5	0.5
income tax - an average of 10 (in thousand JD)	51	50.3	0.7
sales tax - an average of 10 years (in thousand JD)	758	757.6	0.4

The above analysis refers to the feasibility of investment in the project, in light of the high cost of the total investment of the project, which increased by 10%. It is noted that:

- The internal rate of return reaches 18.6%, which is considered high for investment purposes
- The new payback period is 6.6 years, and it is reasonable for recovery purposes
- The return on capital is 22.5%, which is suitable for investment purposes

Second: Reducing Revenues by 10%

The following table shows the results of the sensitivity analysis when reducing revenues by 10%.

Table 41: Reducing Revenues 10%

Index	Base	Impact	Change
Internal Rate of Return (IRR)	20.1%	13.8%	6.3%
The Present Value at a discount rate of 13% (in Thousand JD)	6,223	4094.1	2128.9
Net Present Value at a discount rate of 13% (in Thousand JD)	2,390	268.3	2121.7
Profitability Index (Time)	1.6	1.1	0.5
Payback period (Year)	6.2	7.8	-1.6
The Net Profit Ratio – an average of 10 years	18.3%	11.5%	6.8%
Return on Investment - an average of 10 years	16.5%	11.3%	5.2%
Return on Capital – an average of 10 years	25.0%	15.3%	9.7%
Net Profit On Revenues - an average of 10 years	18.3%	11.5%	6.8%
Assets Turnover (Time) – an average of 10 years	0.8	0.8	-3.7%
The added value - an average of 10 years (in thousand JD)	1754	1379.5	374.5
income tax - an average of 10 (in thousand JD)	51	32.1	18.9
sales tax - an average of 10 years (in thousand JD)	758	681.8	76.2

The above analysis shows the low sensitivity of the project in case of reducing the revenues or demand by 10%. It indicates that:

- The internal rate of return is 13.8%, which is considered high for investment purposes
- The new payback period is 7.8 years, and it is reasonable for recovery purposes
- The return on capital reaches 15.3%, which is suitable for investment purposes

Third: Increasing the Operating Costs by 10%

The following table shows the results of the sensitivity analysis when increasing the operating costs by 10%.

Table 42: Increasing the Operating Costs by 10%

Index	Base	Impact	Change
Internal Rate of Return (IRR)	20.1%	15.3%	4.8%
The Present Value at a discount rate of 13% (in Thousand JD)	6,223	4571.6	1651.4
Net Present Value at a discount rate of 13% (in Thousand JD)	2,390	738.7	1651.3
Profitability Index (Time)	1.6	1.2	0.4
Payback period (Year)	6.2	7.4	-1.2
The Net Profit Ratio – an average of 10 years	18.3%	12.2%	6.1%
Return on Investment - an average of 10 years	16.5%	12.6%	3.9%
Return on Capital – an average of 10 years	25.0%	17.8%	7.2%
Net Profit On Revenues - an average of 10 years	18.3%	12.2%	6.1%
Assets Turnover (Time) – an average of 10 years	0.8	0.9	-9.9%
The added value - an average of 10 years (in thousand JD)	1754	1475.1	278.9
income tax - an average of 10 (in thousand JD)	51	37.0	14.0
sales tax - an average of 10 years (in thousand JD)	758	757.6	0.4

The above analysis shows the feasibility of the project in light of increasing the operating costs of the project by 10%. It indicates that:

- The internal rate of return is 15.3%, which is considered high for investment purposes
- The new payback period is 7.4 years, and it is reasonable for recovery purposes
- The return on capital is 17.8%, which is suitable for investment purposes