Pre-Feasibility Study
Vegetables Chopping and Freezing Factory

April 2017

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Balqa Governorate
Deir Alla District
Ardah Sub-District
Zai Sub-District
Ain Al-Basha District
Qasabat Salt District
Mahis & Fuhais District
Aira & Yarqa
Sub-District
Shonah
Janobyiah District

1. Executive Summary

This study aims at determining the pre-Feasibility Study for a Vegetables Chopping and Freezing Factory in Balqa Governorate. The project will be established in Al-Salt Industrial Estate, which is suitable location for such project, and the availability of the necessary services such as electricity, water energy sources, roads and others.

The project is based on benefiting from the availability of vegetable production in the Kingdom, especially in the Governorate. In addition, the project would contribute to solving the problem of surplus vegetables production in some seasons, as the project will take advantage of the vegetables by chopping, packaging, freezing and selling them to wholesalers, retailers, restaurants, hotels, etc. Local demand for frozen vegetables grew significantly during the past years, as frozen vegetables are imported from foreign markets in large quantities.

The following table shows the preliminary indicators of the project.

Table 1: Initial Indicators of the Project

Project Name	Vegetables Cutting and Freezing Factory
Sector	Industry Sector - Food Industry
Governorate	Balqa
Region	Al-Salt Industrial Estate
Products / Services	• Chopped and frozen vegetables, such as (carrots, peas, Jew's mallow, Okra, corn, beans, etc…) in different packages sizes • Chopped and frozen mixed vegetables in different packages sizes • Large-sized bags for restaurants and hotels
Project Description	A factory for the production of chopped and frozen vegetables will be established in Balqa Governorate in Al-Salt Industrial Estate. The project will be established on a land with an area of 5000 m^2, and the building construction and warehouses with a total area of up to 2,900 m2. The project will be equipped with all modern machinery and equipment necessary for the chopped and frozen vegetables production line. The production capacity of the project in the first year will be about 1,100 tons of frozen vegetables, and will increase annually to reach 1,706 tons of frozen vegetables in the tenth year. The number of employees in the project will be about 51 employees. The selling price of the frozen vegetables in the first year will be about 1.25 JD per kg, and will increase up to 1.6 JD per kg in the tenth year.
Target Market	• Wholesalers • Retailers.

	• Restaurants and Hotels. • Etc.
Investment Cost	The investment cost of the project is about 1.97 million JD.
The Average Return On Investment	The average return on investment during the ten years is about 19.6%
Internal Rate Of Return	The internal rate of return for the project is about 22.4%
Average Added Value Of The Project	The average added value of the project in ten years is about 908 thousand JD.
Risk Assessment	The Sensitivity Analysis indicates a low risk in case of 10% increase in investment cost, or 10% increase in operating costs, or 10% decrease in revenues.
The Project Justifications	• The availability of raw materials in Jordan. • A surplus of vegetables production in some seasons and thus solving the issue of surplus. • Increasing demand for chopped and frozen vegetables in the local market. • The existence of imports of chopped and frozen vegetables from foreign markets, and thus saving foreign currency drain resulting from import. • Employment of National Labor. • Increasing the degree of vertical integration with the Agriculture Sector.
Partners/Stakeholders	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.

Figure 1: 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, Mafraq, Jerash 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 km^2, where the Capital City knocked off other governorates by population amounting to about 4 million people and a population density of 538.8 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 1: 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.

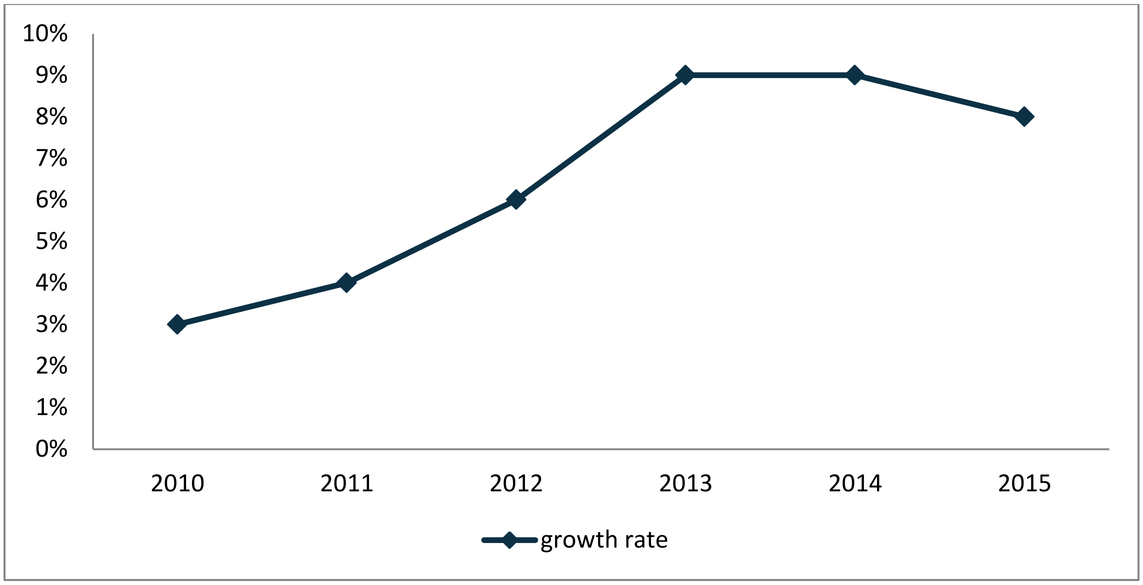
The unemployment rate among Jordanians also witnessed a rise by 1.1 percentage to reach to 13%, due to the structural imbalances that the labor market is suffering from and the acquisition of the low-paid foreign workers on a large number of new jobs in the economy, according to the Central Bank of Jordan.

Table 2: 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

Figure 2: 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 3: 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

	2011	2012	2013	2014	2015
(%)					
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
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 4: 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 5: 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 the establishment of a factory for chopping, packaging and freezing vegetables. Various types of chopped and frozen vegetables in different sizes and packages will be produced, due to the availability of raw materials needed by the project, and the existence of surplus production of vegetables in some seasons in Jordan. The project will be established on a land with an area of 5000 m^2, located in Balqa Governorate in Al-Salt Industrial Estate, due to availability of necessary and appropriate services for the factory, such as electricity, water, roads, information technology, energy sources and others.

3.2 Expected Products and Services

The expected products of the project include the following:

- Chopped and frozen vegetables, such as (carrots, peas, Jew's mallow, okra, corn, beans, etc…) in different package sizes
- Chopped and frozen mixed vegetables in different packages sizes
- Large-sized packages for restaurants and hotels.

3.3 Analysis of Market Size

Different sources of imports and exports quantities and local production of the Kingdom were studied and analyzed, to get a clear and comprehensive picture that would enable the estimation the market size of consuming frozen vegetables of various types in the kingdom. Through the market study, desk research and field surveys that have been conducted, it is found that there are no organized factories that produce frozen vegetables in the Kingdom, but the market demand of frozen vegetables is met through imports from other countries[2].

Consequently, the total market size for frozen vegetables in the Kingdom for the year 2015 was estimated at 9902 tons, according to the size of the net Kingdom's imports of frozen vegetables (Department of Statistics, 2015). In addition, the per capita consumption of frozen vegetables is estimated at about 1.04 kg per capita in 2015, based on the market size and number of the Kingdom's population of about 9.5 million people for the same year.

When analyzing the market size for frozen vegetables in the Kingdom during the past three years, we can observe the significant increase of the market size, thus the demand for these products. This may be due to the consumption habits of the population that has changed during the recent period. The market size has increased from about 5,186 tons in 2011 up to about 9902 tons in 2015.

[2] There are some small workshops that produce frozen vegetables in the kingdom, but in small quantities that does not constitute a significant percentage of the market size.

Table 7: Market Size and Per Capita Consumption of Frozen Vegetables

	2013	2014	2015
Market size (tons) *	7,437	8,796	9,902
Per capita consumption (kg / year)**	0.92	1.00	1.04

Source: Department of Statistics, Foreign Trade 2015.

* Based on the net amount of the Kingdom's imports of frozen Vegetables.

** Calculation of the Study Team, based on the size of the market and the population of the Kingdom.

Figure 4: per capita consumption of frozen vegetables (kg / year)

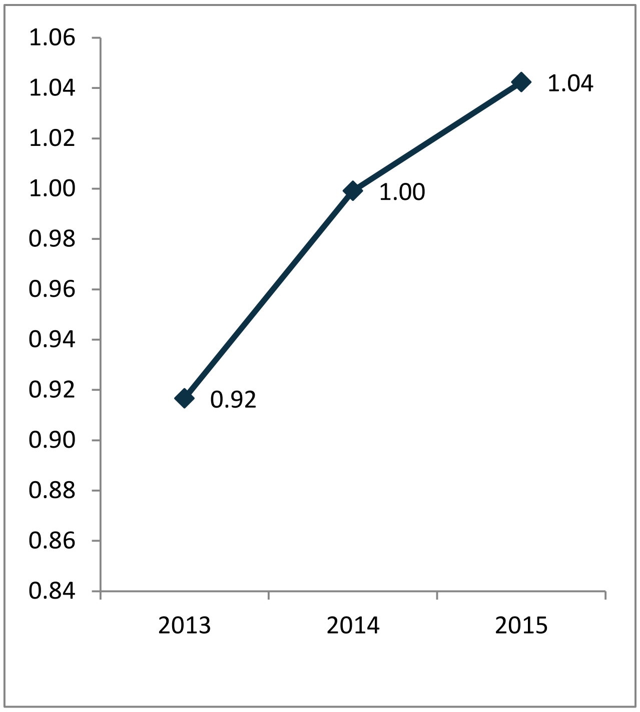
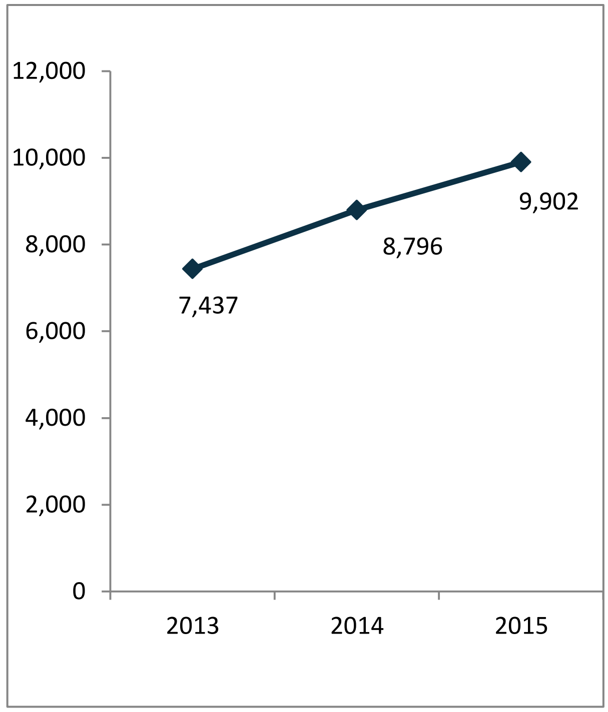


Figure 3: The market size of frozen vegetables (tons)



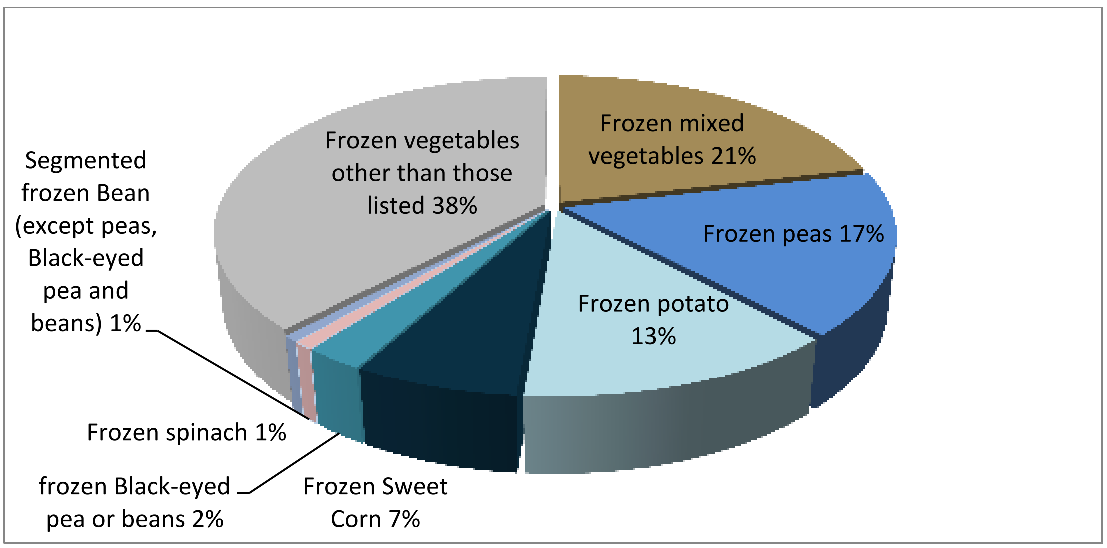
The Kingdom imports different types and varieties of frozen vegetables from other countries. The Kingdom is importing 8 main varieties and types of frozen vegetables in quantities that vary from one type to another. It is noted that 21% of the Kingdom's imports of frozen vegetables are from the same type, which is the chopped and frozen mixed vegetables in a quantity of about 2,106 tons, while frozen peas formed about 17% of the Kingdom's imports of frozen vegetables and amounted up to 1,663 tons. It is worth mentioning that the major quantity of frozen vegetable imports are types of vegetables that are not described in detail, such as Jew's mallow, carrots and other vegetables which accounted for about 38% of the total imports of the Kingdom of frozen Vegetables with a quantity of about 3,747 tons and valued at 3.5 million JD.

Table 8: The distribution of imported frozen vegetables in the Kingdom by type for 2015

	The Amount of Imports (tons)	Value (thousand JD)	Percentage of the Total Imported Amount
Frozen Mixed Vegetables	2,106	1,571	%21
Frozen Peas	1,663	1,391	%17
Frozen Potato	1,317	628	%13
Frozen Sweet Corn	669	643	%7
Frozen Black-eyed Pea or Beans	248	202	%3
Segmented Frozen Beans (except peas, Black-eyed Pea and Beans)	86	125	%1
Frozen Spinach	66	51	%1
Frozen Vegetables other than those listed	3,747	3,533	%38
Total			

Source: Department of Statistics, Foreign Trade 2015

Figure 5: The distribution of imported frozen vegetables in the Kingdom by type for 2015



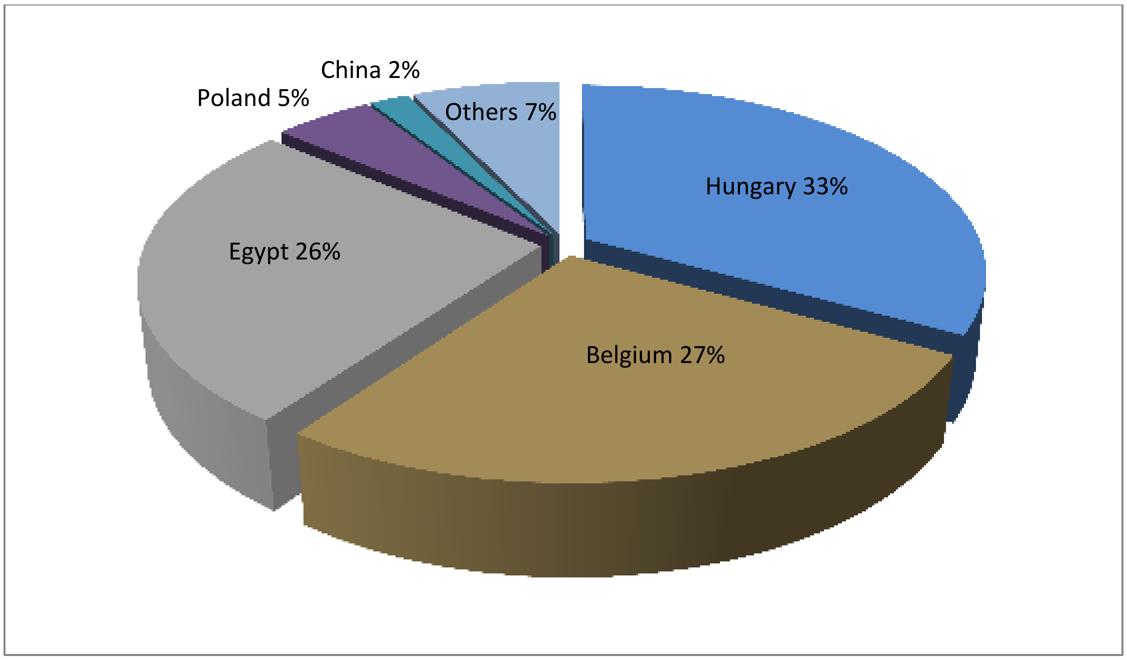
When analyzing the total Kingdom's imports of frozen vegetables in terms of the countries of origin, it is found that the Kingdom imports the largest quantity amounted at 3,987 tons from Hungary, which constitutes 33% of the total Kingdom's imports of frozen vegetables, followed by Belgium with 27% of the Kingdom's imports of frozen vegetables, and then Egypt by 26% of the total amount of the Kingdom's imports with a quantity of about 3,160 tons valued at about 3 million JD. It is worth mentioning that the Kingdom's imports of frozen vegetables account for about 2.3% of the total world exports of frozen vegetables, according to the World Trade Map Statistics for 2015.

Table 9: Distribution of the Kingdom's imports of frozen vegetables by countries of origin for 2015

	Value (thousand JD)	%	Quantity (tons)	%
Hungary	3,146	34%	3,987	33%
Belgium	1,615	18%	3,235	27%
Egypt	3,050	33%	3,160	26%
Poland	423	5%	579	5%
China	135	1%	226	2%
Other	817	9%	863	7%
Total imports	**9,186**	**100%**	**12,050**	**100%**
Net imports	**8,144**	**-**	**9,902**	**-**

Source: Department of Statistics, Foreign Trade 2015

Figure 6: Distribution of the Kingdom's imports of frozen vegetables by countries for 2015



Supply Analysis and Competitors

Based on what previously explained regarding analysis of the market size, the supply of the frozen vegetables to meet the needs of the Jordanian market comes mainly through importing from other countries, especially Hungary, Belgium, Egypt, and Poland. These countries are considered the main producer and exporter of frozen vegetables in the world. In addition, the mentioned countries are the main ones that the Kingdom imports frozen vegetables from -as mentioned earlier- as 91% of the Kingdom's imports of frozen vegetables come from these countries.

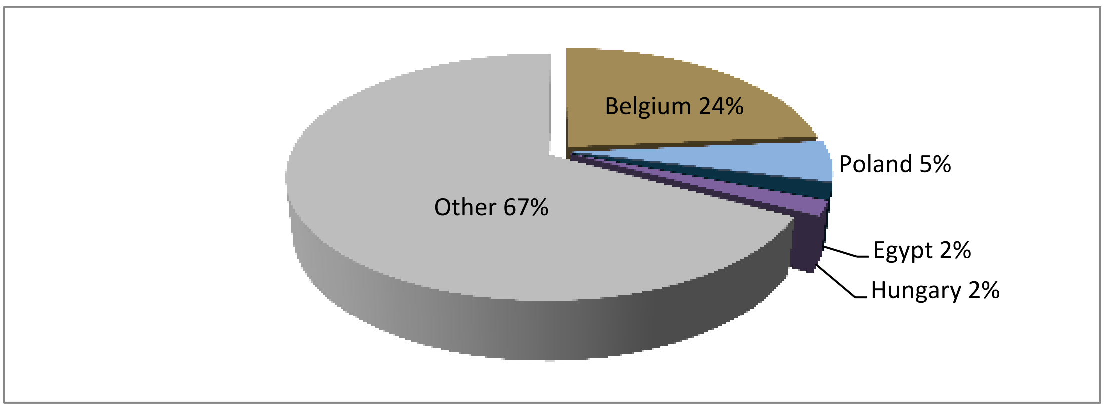
The table below shows the most important producers and exporters of frozen vegetables in the world, which the Kingdom imports from. Belgium exports 24% of the world total exports of frozen vegetables with a quantity of about 1.3 million tons, while Poland exports constitute about 5% of the world total exports of frozen vegetables that amount up to 293 thousand tons, and Egypt makes up 2% of the world total exports of frozen vegetables that amount up to 114.8 thousand tons.

Table 10: The main exporters of frozen vegetables in the world for 2015

	Quantity (tons)	Percentage
Belgium	1,302,851	%24
Poland	293,050	%5
Egypt	114,829	%2
Hungary	109,464	%2
Other	3,708,666	%67
Total	**5,528,860**	**%100**

Source: World Trade Map, International Statistics 2015 (Trade Map)

Table 7: The main exporters of frozen vegetables in the world for 2015



Based on the foregoing, the main competitor for the project products of frozen vegetables is the Hungarian, Belgian, Egyptian and Polish imported products that are significantly available in the Jordanian market.

3.4 Price Analysis

A field study on the prices of frozen vegetable in the Kingdom has been conducted, as consumer prices of different types and varieties of frozen vegetables available in the Jordanian market have been collected.

The table below shows the prices of these frozen vegetables, which have been collected during the field study. It is noticeable that the frozen vegetables of various types, which are sold in the Jordanian market such as peas, carrots, beans and mixed vegetables, are sold at the same price of 0.70 JD for per pack, weighing 400 grams, with the exception of frozen sweet corn, which has a price of one JD for the same package weight.

Table 11: Frozen vegetable prices by type in the Jordanian market

Product	Weight (g)	Price (JD)
Frozen peas	400	0.70
Frozen peas and carrots	400	0.70
Frozen green beans	400	0.70
Frozen Okra	400	0.70
Frozen mixed vegetables	400	0.70
Frozen Sweet Corn	400	1.00
Frozen spinach	400	0.70
Frozen Jew's mallow	400	0.70

Source: Field Survey

3.5 Marketing Strategy

Target Market

The project targets the following categories:

- Wholesalers.
- Retailers.
- Restaurants and Hotels.
- Etc.

Expected Products

Expected products of the project include the following:

- Chopped and frozen vegetables, such as (carrots, peas, Jew's mallow, Okra, corn, beans, etc…) in different package sizes
- Chopped and frozen mixed vegetables in different package sizes
- Large-sized bags for restaurants and hotels.

Expected Prices

- The average selling price of frozen vegetables in the first year is 1.25 JD per Kg.

Promotion

The Promotional Strategy for the project includes the following:

- Factory website.
- Brochure about the factory.
- Advertisements across websites.
- Advertisements in local newspapers.

Selling

The Selling Strategy for the project includes the following:

- Selling to wholesalers.
- Selling to retailers.
- Selling to restaurants and hotels.
- Selling to other sale outlets.

Services

The Strategy of service delivery of the project includes the following:

- Focusing on the quality of the materials used in the production of frozen vegetables.
- Maintaining a permanent and continuous hygiene and cleanliness of the factory and storage areas.
- Maintaining the cleanliness of the tools, furniture, various facilities and equipment used.
- Respecting the rules of health protection, cleanliness and public safety.
- Maintenance of equipment on an ongoing basis.
- Date commitment and punctuality with customers.
- Trust and credibility with customers.

3.6 Expected Market Share

The following table shows the market share of the project, in accordance with the following assumptions:

- It is expected to begin the work in the proposed project in 2020.
- The growth size of the market of frozen vegetables is estimated at 3% each year, from 2015 through 2020, as the expected market size will become as follows:

	2015	2016	2017	2018	2019	2020
The expected market size for frozen vegetables	9,902	10,199	10,505	10,820	11,145	11,479

Table 12: Market share of the project

Statement	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year	Eighth year	Ninth year	Tenth year	First year
Frozen Vegetables production of the project (tons)	1,100	1,155	1,213	1,273	1,337	1,404	1,474	1,548	1,625	1,706	1,100
Market size (tons)	11,479	11,823	12,178	12,543	12,920	13,307	13,707	14,118	14,541	14,977	11,479
market share	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	10%

4. Technical Study

4.1 The Designed Capacity of the project

The following table shows the designed capacity of the project. The factory is designed to produce 1,706 tons of frozen vegetables of various types.

Table 13: The Designed Capacity of the project

Statement	Number
Frozen vegetables - tons	1,706

The following table shows the area required for the project. In order to reach the project designed capacity, it requires the purchase of a land with an area of 5000 m^2, and construction of buildings and warehouses with a total area of 2900 m^2.

Table 14: Required Area for the project

Item	Unit
Land m^2	5,000
Buildings m^2	2,500
Refrigerated store m^2	400

4.2 Required Material Resources

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

Table 15: The Material resources required for the project

Item	Unit	Price	Value (JD)
Land m^2 **	5,000	-	-
Buildings m^2	2,500	150	375,000
Cold Store and storage m^2	400	300	120,000
Machinery and Equipment	-	-	1,000,000
Transport	7	25,000	175,000
Information Technology	-	10,000	10,000
Other	-	-	10,000
TOTAL			1,690,000

* The numbers are estimated from the Market Study.

** The land in which the project will be established on will be rented; the rent cost was mentioned in the operational costs.

The factory will include the following machines and equipment for the production of frozen Vegetables:

- Vegetable Washing Machine.
- Leafy Vegetables Washing Machine.
- Conveyor Belt to inspect and sort the vegetables.

- Vegetable Drying Machine.
- Vegetables Processing Machine.
- Vegetable Grading Machine.
- Different Vegetable Cutting and chopping Machines.
- Vegetable Blanching Machine.
- Leafy Vegetable Blanching Machine.
- Vegetables Mixing Machine
- Vibrators for Vegetables Packaging.
- Special Conveyor Belt and forklifts.
- Packaging Machine.
- Sterilization Machine.
- Numbering Line.

4.3 Required Human Resources

The following table shows the human resources required for the project. The number of the required staff is about 51 employees, with total salaries of 320 thousand JD annually.

Table 16: 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	2,500	30,000		30,000
Directors	3	1,500	54,000		54,000
Supervisor and Engineer	6	700	50,400	50,400	
Technician	10	500	60,000	60,000	
Administrators, Accountants, Procurement	6	500	36,000		36,000
Worker	25	300	90,000	90,000	
Total	51		320,400	200,400	120,000

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

Table 17: General Job Description of jobs required in the project

Job	Job Description
Director General	• Planning, organizing, directing and managing all processes and operations in the factory. • Following-up the matters and the performance of all departments 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. • Supervising the studies and the collection of statistical and economic data, to assist in the preparation of budget estimates.
Director of the Department	• Supervising the performance of all processes and operations in the department. • Setting the daily and monthly plans for the employees belonging to the department. • Reporting and reviewing periodic reports and, submitting them to the Factory Director. • Determining the needs of the required human resources to work in the Department. • 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	• Direct supervision of labor. • Ensure daily productivity of workers. • Making sure to maintain the workflow through guidance and oversight. • Daily inspection tours.
Engineer	• 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 production process. • 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	• 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 equipment's, 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	• Preparing the materials used in production. • Operating machines and equipment's 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 Requirements

The following table shows the special requirements for the establishment of a food products factory.

Table 18: Requirements and Specifications

Statement	Requirements and Specifications
Location	• 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	• 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	• The Production Area shall be sufficient for the size of the used machines and equipment's, 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	• All electrical connections and installation shall be executed in accordance with the technical standards.
Water sources	• 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	• Bathrooms shall be provided with ventilation fan and exhaust box.

	• Appropriate number of Bathrooms shall be provided for the number of employees in the factory. Bathrooms shall not be placed directly to preparation and production areas. • Bathrooms shall be provided with soap, paper towels or hot air, and the use of towels shall be prohibited.
Waste and Water Disposal	• 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	• 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	• Shall be provided with adequate number of metal shelves, as the lower shelf shall be at least 20cm 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	• Safety requirements shall be in place, according to the Civil Defense instructions.
Hygiene and Cleanliness	• 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	• 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 Required Licenses

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

Table 19: Licenses Required for the Project

Statement	Analysis
Company Registration and licensing	▪ Ministry of Industry and Trade ▪ Chamber of Industry
The Establishment of the Factory	▪ Concerned municipality / Concerned Industrial Area / Electricity / Water etc....
Factory Operation	▪ Income and Sales Tax Department ▪ Social Security Corporation

4.6 Project Timetable

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

Stage	The First Year (Months)												The Second Year (Months)					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Studies																		
Approval licensing and Registration of the Company																		
Location and Building and Preparation																		
Equipping, Furnishing and the Purchase of Machines																		
Installation and start up to Production																		
Total Duration	18 months																	

5. Financial Study

5.1 Financial Assumptions

The following table illustrates the financial assumptions of the project.

Table 6: 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	3 months of annual cost
Pre-Operating Expenses	2% of total investment
Tax Rate	5%
Exemptions	Fixed assets are exempted from customs
Vegetables cost	300 JD/ton
Packing & wrapping material cost	4% of revenues
Staff Benefits	25% of salaries
Annual Salaries Increase	5%
Marketing Expenses	9% of revenues
Assets Depreciation Rate	4%-20% of the asset value
Maintenance Cost	17 thousand JD at the first year, with 5% annual increase
Electricity Cost	8% of total revenues
Costs of water	1.5% of total revenues
Accounts Receivable	One month of revenues at the first year, and then it become 2 months of revenues
Inventory	3 months of vegetables cost
Asset Dividends	70% of profit
Reserves	30% of profit

5.2 Investment Cost

The project's Investment cost is estimated at JD 2 million distributed among fixed assets of JD 1.7 million, and pre-operating expenses and working capital in total of JD 280 thousand.

The following table shows the project's Investment cost.

Table 7: the project's investment cost

Item	Value (in thousand JD)
Fixed assets	1,690
Pre-operating expenses	39
Working capital	241
Total	1,970

5.3 Financing

The project will be financed with the shareholders by 75% which is estimated at about JD 1.5 million, while the other 25% of the project investment cost will be financed through bank loans of about JD 492 million.

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

- The interest rate is 9%.
- The loan will be paid during 6 years.

Table 8: Project financing schedule

Item	Value (in thousand JD)	%
Equity	1,477.6	75%
Loan	492.5	25%
Total	1,970	100%

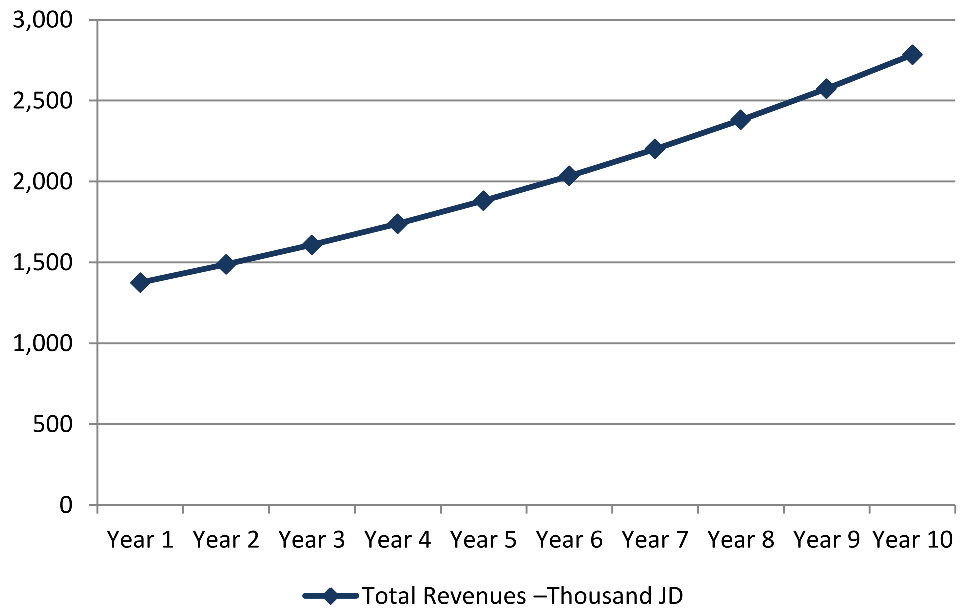
5.4 Revenues

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 1.3 million, and increased to reach up to JD 2.7 million in the tenth year due to growth and increase in sales.

Table 9: The Expected Revenues

Statement	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Frozen vegetables (ton)	1,100	1,155	1,213	1,273	1,337	1,404	1,474	1,548	1,625	1,706
Price (JD/ton)	1,250	1,288	1,326	1,366	1,407	1,449	1,493	1,537	1,583	1,631
Total Revenues – Thousand JD	1,375	1,487	1,608	1,739	1,881	2,034	2,200	2,380	2,573	2,783

Figure 3: Total Expected Revenues



5.5 The Projected Costs

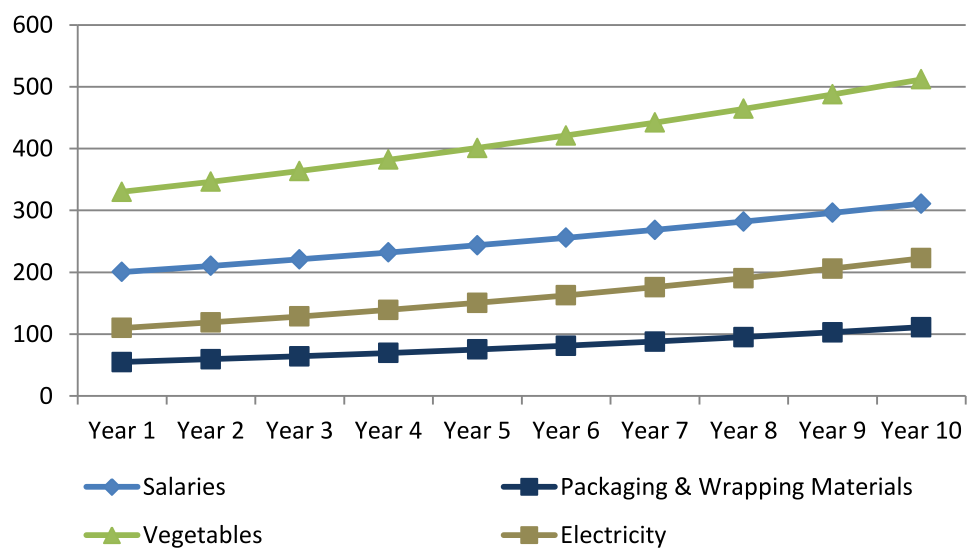
Operating Costs

The following table shows the project's operating costs according to the previous assumption over ten years. Vegetables cost in year 1 amounted to JD 330 thousand which increase to reach JD 512 thousand in year 10. Moreover, the Packaging & Wrapping Materials cost amount to JD 55 thousand in Year 1 which increases to JD 111 in year 10.

Table 10: Operating Costs

Operating Costs (in thousand JD)										
Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Vegetables	330.0	346.5	363.8	382.0	401.1	421.2	442.2	464.3	487.6	511.9
Electricity	110.0	119.0	128.7	139.1	150.5	162.8	176.0	190.4	205.9	222.7
Packaging & Wrapping Materials	55.0	59.5	64.3	69.6	75.2	81.4	88.0	95.2	102.9	111.3
Water	20.6	22.3	24.1	26.1	28.2	30.5	33.0	35.7	38.6	41.7
Cleaning Material	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Salaries	200.4	210.4	220.9	232.0	243.6	255.8	268.6	282.0	296.1	310.9
Staff Benefits	50.1	52.6	55.2	58.0	60.9	63.9	67.1	70.5	74.0	77.7
IT Expenses	2.0	2.1	2.2	2.3	2.4	2.6	2.7	2.8	3.0	3.1
Depreciation	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0	166.0
Maintenance	16.9	17.7	18.6	19.6	20.5	21.6	22.6	23.8	25.0	26.2
Rents	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Total	963.0	1008.1	1056.0	1106.7	1160.5	1217.6	1278.3	1342.7	1411.0	1483.6

Figure 4: Projected Operating Costs of the Project



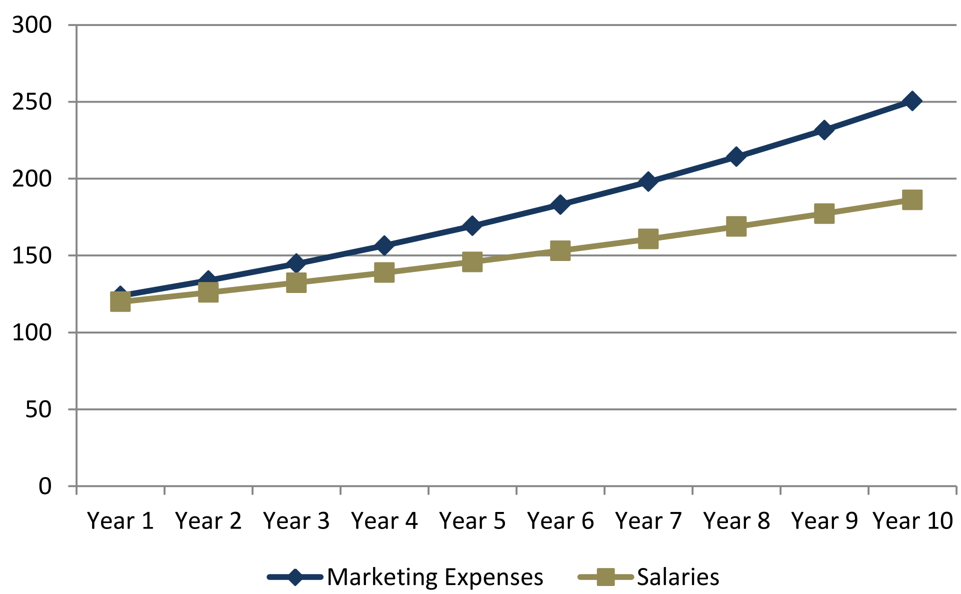
Administrative Expenses

The following table shows the projected administrative expenses of the project. Employees' salaries reach JD 120 thousand in the first year and increase to JD 186.2 thousand in the tenth year. The marketing expenses are about JD 123.8 thousand in the first year and increase to reach JD 250.5 thousand in the tenth year.

Table 11: General and Administrative Expenses

General and Administrative Expenses (in thousand JD)										
Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Salaries	120.0	126.0	132.3	138.9	145.9	153.2	160.8	168.9	177.3	186.2
Staff Benefits	30.0	31.5	33.1	34.7	36.5	38.3	40.2	42.2	44.3	46.5
Staff Incentives	1.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	5.0	6.0
Stationery	5.0	5.3	5.5	5.8	6.1	6.4	6.7	7.0	7.4	7.8
Professional Fees	3.0	3.2	3.3	3.5	3.6	3.8	4.0	4.2	4.4	4.7
Marketing Expenses	123.8	133.8	144.7	156.5	169.3	183.1	198.0	214.2	231.6	250.5
Other Expenses	10.0	10.5	11.0	11.6	12.2	12.8	13.4	14.1	14.8	15.5
Amortization	39.4	–	–	–	–	–	–	–	–	–
Total	332.2	311.2	331.0	352.0	374.5	399.5	426.2	454.5	484.8	517.1

Figure 5: General and Administrative Expenses



5.6 Projected Financial Statements

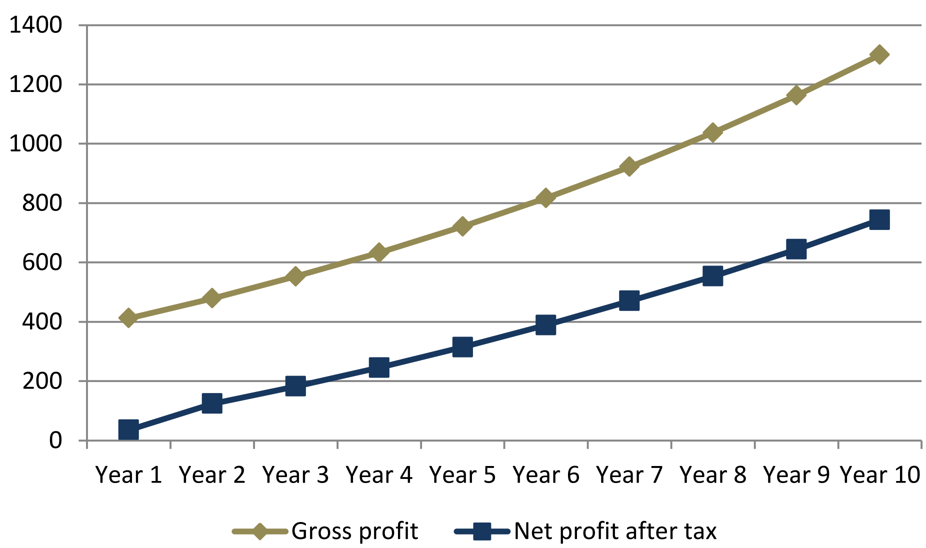
Income Statement

The following table shows the projected income statement of the project. It indicates that gross profit will increase from JD 412 thousand in the first year to JD 1.3 million in the tenth year. Also the net profit after tax will increase from JD 35.5 thousand in the first year to JD 743.4 thousand in the tenth year.

Table 12: The Projected Income Statement

Income Statement (in thousand JD)										
Item	Year 1	Year 2	Year 3	Year4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenues	1,375.0	1,487.1	1,608.3	1,739.3	1,881.1	2,034.4	2,200.2	2,379.5	2,573.4	2,783.2
Operating costs (cost of sales)	963.0	1,008.1	1,056.0	1,106.7	1,160.5	1,217.6	1,278.3	1,342.7	1,411.0	1,483.6
Gross profit	412.0	478.9	552.3	632.6	720.6	816.7	921.9	1,036.9	1,162.4	1,299.6
Administrative expenses	332.2	311.2	331.0	352.0	374.5	399.5	426.2	454.5	484.8	517.1
Net profit	79.8	167.7	221.3	280.6	346.1	417.2	495.8	582.3	677.6	782.5
financial expenses	44.3	37.1	29.9	22.7	15.5	8.3	1.1	-	-	-
Net profit before tax	35.5	130.6	191.4	257.9	330.5	408.9	494.6	582.3	677.6	782.5
Tax	-	6.5	9.6	12.9	16.5	20.4	24.7	29.1	33.9	39.1
Net profit after tax	35.5	124.0	181.8	245.0	314.0	388.5	469.9	553.2	643.7	743.4

Figure 6: 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 1.97 million in the year of incorporation to JD 2.7 million in the tenth year. The Total liabilities will decrease from JD 497 thousand in the first year to JD 131 thousand in the tenth year. The Shareholders' Equity will increase from JD 1.5 million in the year of incorporation to JD 2.6 million in the tenth year.

Table 13: 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	Year 10
Assets											
Cash	241	249	234	353	488	643	817	1,082	1,381	1,706	2,057
Receivables		121	247	267	289	312	338	365	395	427	462
Inventory		79	83	87	92	96	101	106	111	117	123
Pre- Paid Expenses	-	12	25	27	29	31	34	37	39	43	46
Total Current Assets	241	462	589	733	897	1,082	1,290	1,590	1,927	2,292	2,688
Fixed Assets	1,729	1,729	1,729	1,729	1,729	1,729	1,729	1,729	1,729	1,729	1,729
Cumulative Depreciation	-	205	371	537	703	869	1,035	1,201	1,367	1,533	1,699
Amortization	–										
Net Fixed Assets	1,729	1,524	1,358	1,192	1,026	860	694	528	362	196	30
Total Assets	1,970	1,986	1,947	1,925	1,923	1,942	1,984	2,118	2,289	2,488	2,718
Shareholders Equity and Liabilities											
Accrued Expenses and Payables		85	89	93	97	102	107	112	118	124	131
Long Term Loans	493	413	333	253	173	93	13				
Total Liabilities		497	421	345	270	195	120	112	118	124	131
Shareholders Contributions	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,478
Retained Earnings		11	48	102	176	270	387	528	694	887	1,110
Shareholders' Equity	1,478	1,488	1,525	1,580	1,654	1,748	1,864	2,005	2,171	2,364	2,587
Shareholders Equity and Liabilities	1,970	1,986	1,947	1,925	1,923	1,942	1,984	2,118	2,289	2,488	2,718

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 operating will increase from JD 113 thousand in the first year to JD 872 thousand in the tenth year; while the Cash at the ending period will increase from JD 241 thousand in the year of incorporation to JD 2 million in the tenth year.

Table 14: 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	Year 10
Operation Activities											
Net Profit	-	35	124	182	245	314	388	470	553	644	743
Depreciation	-	205	166	166	166	166	166	166	166	166	166
Change In Working Capital	-	(128)	(138)	(22)	(24)	(26)	(28)	(30)	(32)	(35)	(38)
Cash Flow From Operation	-	113	152	326	387	454	527	606	687	775	872
Investing Activities											
Fixed Assets	(1,729)	-	-	-	-	-	-	-	-	-	-
Cash From Investing Activities	(1,729)	-	-	-	-	-	-	-	-	-	-
Financing Activities											
Capital (Equity)	1,478	-									
Loan	493	(80)	(80)	(80)	(80)	(80)	(80)	(13)	-	-	-
Dividends		(25)	(87)	(127)	(171)	(220)	(272)	(329)	(387)	(451)	(520)
Cash Flow From Financing Activities	1,970	(105)	(167)	(207)	(251)	(300)	(352)	(341)	(387)	(451)	(520)
Net Cash Flow	241	8	(15)	118	136	154	175	264	300	324	351
Cash At The Beginning Period	0	241	249	234	353	488	643	817	1,082	1,381	1,706
Cash At The Ending Period	241	249	234	353	488	643	817	1,082	1,381	1,706	2,057

5.7 Financial, Economic and Social Analysis

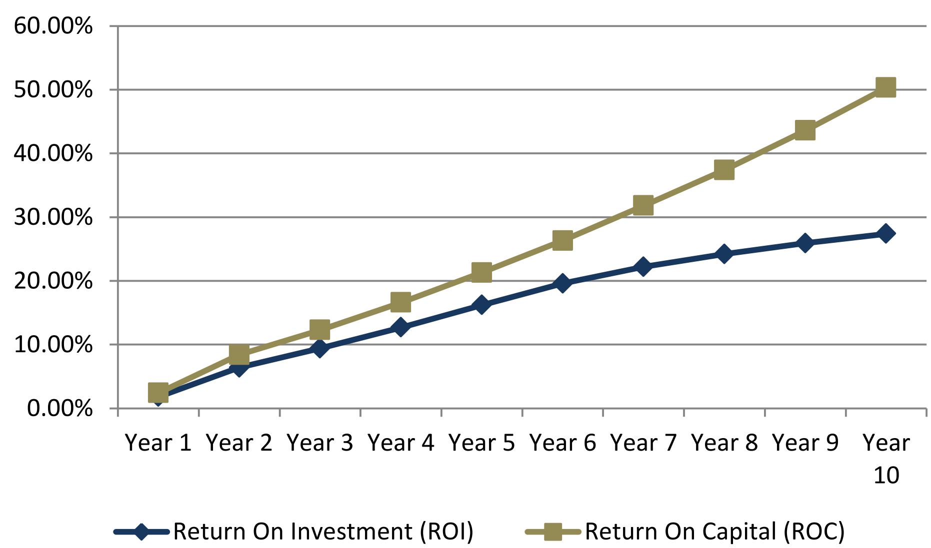
Financial Analysis

The following table shows the financial analysis of the project. It indicates that the net profit ratio will increase from 2.6% in the first year to 26.7% in the tenth year, and the return on investment will increase from 1.8% in the first year to 27.4% in the tenth year.

Table 15: 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	Year 10
Assets	1,986	1,947	1,925	1,923	1,942	1,984	2,118	2,289	2,488	2,718
Revenues	1,375	1,487	1,608	1,739	1,881	2,034	2,200	2,380	2,573	2,783
Profits	35	124	182	245	314	388	470	553	644	743
Capital (Equity)	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,478	1,478
Net Profit %	2.6%	8.3%	11.3%	14.1%	16.7%	19.1%	21.4%	23.2%	25.0%	26.7%
Return On Investment (ROI)	1.8%	6.4%	9.4%	12.7%	16.2%	19.6%	22.2%	24.2%	25.9%	27.4%
Return On Capital (ROC)	2.4%	8.4%	12.3%	16.6%	21.3%	26.3%	31.8%	37.4%	43.6%	50.3%
Net Profit On Revenues	2.6%	8.3%	11.3%	14.1%	16.7%	19.1%	21.4%	23.2%	25.0%	26.7%
Assets Turnover (Time)	0.69	0.76	0.84	0.94	0.97	1.03	1.04	1.04	1.03	1.02

Figure 7: 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 22.4%. It exceeded five times the return on assets, which means the economic feasibility of the project
- The present value of the project reached about JD 2.6 million. It exceeds the net present value with JD 1.5 million, which means the economic feasibility of the project.
- The profitability index of the project reached 1.79 times, which means that the expected value of the project will increase by one double and eight times the investment value, which proves that the project is feasible.
- The project payback period is 6 years.

Table 16: the Economic Analysis

Economic Analysis (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	Year 10
Net cash flow from operating and investing activities	(1,478)	33	72	246	307	374	447	593	687	775	872
terminal value											2,587
Net Cash flow	(1,478)	33	72	246	307	374	447	593	687	775	3,459
Internal Rate of Return (IRR)	22.4%										
present Value	2,649										
Net present value	1,172										
Profitability Index (Time)	1.79										
Payback period (Year)	6.00										

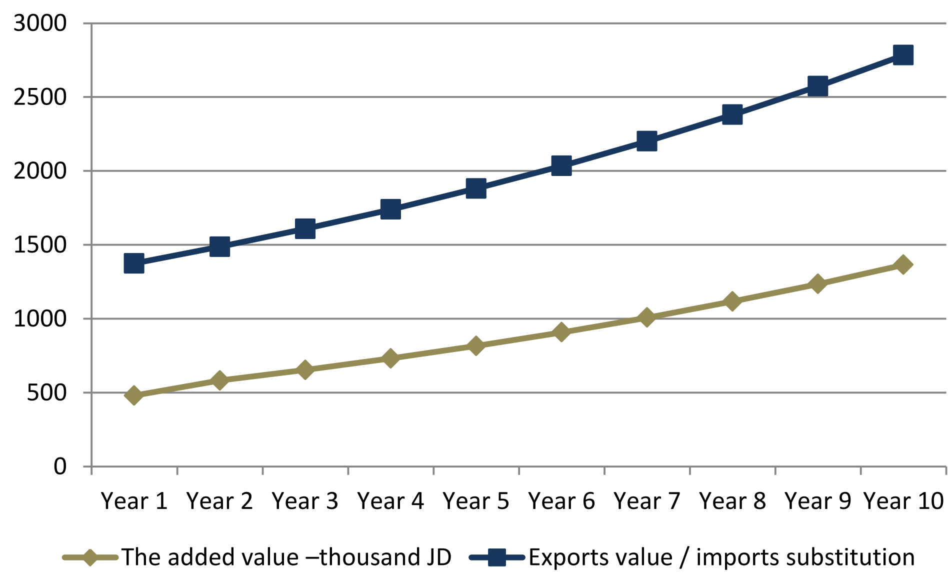
Social Analysis

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 51 employees in the first year to 61 employees in the tenth year. The number of Jordanian employees will increase from 15 employees in the first year to reach 18 employees in the tenth year. The added value of the project will also increase from JD 480 thousand in the first year to JD 1.4 million in the tenth year.

Table 17: the Social Analysis of the Project

Social Analysis										
Statement	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Number of Employees	51	52	53	54	55	56	57	59	60	61
Jordanian employees	15	16	16	16	17	17	17	18	18	18
The added value –thousand JD	480	582	653	731	816	908	1,008	1,117	1,235	1,365
Income tax –thousand JD	-	7	10	13	17	20	25	29	34	39
sales tax value –thousand JD	220	238	257	278	301	326	352	381	412	445
Exports value / imports substitution	1,375	1,487	1,608	1,739	1,881	2,034	2,200	2,380	2,573	2,783

Figure 8: 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 18: Project Risk Matrix

Risks	Type of Risks	Risk Assessment
Financial Risks	▪ **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	▪ The financial risks that may face the company are moderate, because the company payment method is credit for two months ▪ 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
	financial instrument, due to fluctuations in foreign currency exchange rates. ▪ **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.	
Business risk (sector risk)	▪ **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	▪ The risks are considered moderate before the company's establishment, because of getting the approval of the official authorities such as municipality and tourism ▪ Reputational risk is very high, as the company deals with very sensitive issues such as entertainment activities, food and beverage ▪ Market risk in the short term will be low because of the low competition from other companies in the governorate

Risks	Type of Risks	Risk Assessment
	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. ▪ **Competition Risk** Competition risk results from domestic and external competitors and reduces sales and profits.	
Operational Risk	Operational risk involves losses resulting from the failure of internal operations, human resources and systems. It includes: ▪ **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.	▪ Operational risks are very low, for the company will contract with specialized technical bodies to develop the required information systems, in order to manage operations ▪ Competitive salaries will be paid ▪ Information security plan will be put in place to safely keep the company information

Risks	Type of Risks	Risk Assessment
	▪ **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.	▪ 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 19: Investment Increase by 10%

Index	Base	Impact	Change
Internal Rate of Return (IRR)	22.4%	20.7%	1.73%
The Present Value at a discount rate of 13% (in Thousand JD)	2,649	2650.3	-1.3
Net Present Value at a discount rate of 13% (in Thousand JD)	1,172	1021.6	150.4
Profitability Index (Time)	1.8	1.63	0.2
Payback period (Year)	6.00	6.30	-0.3
The Net Profit Ratio – an average of 5 years	19.1%	18.9%	0.22%
Return on Investment - an average of 5 years	19.6%	17.7%	1.95%
Return on Capital – an average of 5 years	26.3%	23.6%	2.71%
Net Profit On Revenues - an average of 5 years	19.1%	18.9%	0.22%
Assets Turnover (Time) – an average of 5 years	1.0	0.9	0.1
The added value - an average of 5 years (in thousand JD)	908	908	-0.2
income tax - an average of 5 (in thousand JD)	20	20	-0.2
sales tax - an average of 5 years (in thousand JD)	326	326	0

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 20.7%, which is considered high for investment purposes
- The new payback period is 6.3 years, and it is reasonable for recovery purposes
- The return on capital is 23.6%, 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 20: Reducing Revenues 10%

Index	Base	Impact	Change
Internal Rate of Return (IRR)	22.4%	13.6%	8.77%
The Present Value at a discount rate of 13% (in Thousand JD)	2,649	1551.1	1097.9
Net Present Value at a discount rate of 13% (in Thousand JD)	1,172	73.5	1098.5
Profitability Index (Time)	1.8	1.05	0.8
Payback period (Year)	6.00	8.10	-2.1
The Net Profit Ratio – an average of 5 years	19.1%	10.7%	8.44%
Return on Investment - an average of 5 years	19.6%	11.5%	8.07%
Return on Capital – an average of 5 years	26.3%	13.2%	13.09%
Net Profit On Revenues - an average of 5 years	19.1%	10.7%	8.44%
Assets Turnover (Time) – an average of 5 years	1.0	1.1	-0.1
The added value - an average of 5 years (in thousand JD)	908	715	193.3
income tax - an average of 5 (in thousand JD)	20	10	9.7
sales tax - an average of 5 years (in thousand JD)	326	293	33.0

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 13.6%, which is suitable for investment purposes
- The new payback period is 8.1 years, and it is reasonable for recovery purposes
- The return on capital reaches 13.2%, 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 21: Increasing the Operating Costs by 10%

Index	Base	Impact	Change
Internal Rate of Return (IRR)	22.4%	17.0%	5.41%
The Present Value at a discount rate of 13% (in Thousand JD)	2,649	1962.4	686.6
Net Present Value at a discount rate of 13% (in Thousand JD)	1,172	484.7	687.3
Profitability Index (Time)	1.8	1.33	0.5
Payback period (Year)	6.00	7.20	-1.2
The Net Profit Ratio – an average of 5 years	19.1%	13.4%	5.69%
Return on Investment - an average of 5 years	19.6%	15.1%	4.51%
Return on Capital – an average of 5 years	26.3%	18.5%	7.84%
Net Profit On Revenues - an average of 5 years	19.1%	13.4%	5.69%
Assets Turnover (Time) – an average of 5 years	1.0	1.1	-0.1
The added value - an average of 5 years (in thousand JD)	908	792	115.7
income tax - an average of 5 (in thousand JD)	20	14	5.6
sales tax - an average of 5 years (in thousand JD)	326	326	0

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 17%, which is considered high for investment purposes
- The new payback period is 7.2 years, and it is reasonable for recovery purposes
- The return on capital is 18.5%, which is suitable for investment purposes