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Industrial Investment in Ma'an Governorate, Obstacles, Opportunities and Successful Projects

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Abstract:
Industrial investment is one of the most important factors that help achieving sustainable economic development. This study aims to explore the obstacles, which constrain industrial investments in Ma'an Governorate (located in south Jordan) and the incentives to promote these investments. It also aims to explore investment projects with successful future opportunities. A survey on government and private departments' managers, individual entrepreneurs, and professionals in Ma'an Governorate was conducted for data collection. A total of 300 questionnaires were distributed. Out of this number, only 186 were returned. The response rate was about 58%. One-sample *t*-test and descriptive statistics showed that there are obstacles facing industrial investments, on the other side it showed that there are real incentives for industrial investments. The research findings show that the Governorate of Ma'an is eligible to attract various industrial projects, which have opportunities to be highly successful in the future such as glass factories, plastics, marble, clothing, and construction materials industries. This study recommends Jordanian government to improve basic infrastructure, promote private industrial investments and exploit the opportunities in the area through directing industrial investments towards the available resources**.** It also recommends promoting the governorate of Ma'an through media and highlights the prospects of success in various fields of industrial investment in a positive way**.**
Keywords: Industrial Investment, investment obstacles, investment opportunities, future investment projects, Ma'an Governorate.

1. Introduction:

In the light of recent changes world has witnessed during the past few decades, it has become imperative for countries, especially small ones, to draw clear economic vision with solid foundations in order to achieve national goals and overcome the obstacles and challenges that have arisen with the modern concepts and institutions such as globalization, WTO and others.

Jordan movement towards drawing a national strategy to encourage investment, economic reforms, opening up to the surrounding Arab and international markets and signing a range of trade agreements, are all essentials to provide appropriate environment to encourage and attract investment and achieve sustainable economic development. The present study demonstrates industrial investments in the Southern Region of Jordan (Governorate of Ma'an) to point out the obstacles and opportunities facing industrial sector in Ma'an. Although, industrial sector faces significant challenges, it can be an attractive destination for industrial investment with a variety of incentives that could make it a leader in economic development of Jordan. This study is carried out to show general framework for industrial investments and obstacles which hamper investment opportunities, therefore, suggests proper solutions and draw an appropriate strategy that fits future industrial investment attractions in the area.

2. Problem of the Study

Ma'an Governorate has an exclusive investment environment that qualifies it to be an active in supporting national economy. It is one of the largest provinces of the Kingdom that makes it rich in natural and mineral resources such as phosphate, cement, glass sand and many valuable natural resources. Hence, the study problem arises from the fact that; "*Industrial investments in Ma'an are still limited as compared to the available opportunities and resources*".

3. Significance of the Study

The importance of this study stems from many aspects as follows:

- Although a number of studies and researches in different investment areas at national level were carried out, however, studies related to Governorate of Ma'an were limited. The importance of conducting specialized research in the field of investment in the province, including industrial investment would be of great importance.
- Industry is considered most important factor of the economy, hence the current study intends to focus on industrial investment and identifies its role in solving social and economic problems of the province.
- Ma'an is distinguished from the rest of the provinces of Jordan by several vital and strategic advantages; most important is the large area and wide availability of natural resources. Therefore, the study is deemed as a specialized qualitative addition in the field of industrial investment with the availability of these

resources to push forward economic progress in the province.

- The current study monitors the most important indicators to attract and guide national and international investors.

4. Objectives of the study

The main objectives of the study are as follows:

- To identify the nature of industrial investment in Ma'an.
- To identify the main obstacles preventing local and foreign industrial investment in the province.
- To identify investment opportunities in industrial sector and demonstrate their role in developing national economy and local investment environment.
- To draw an appropriate strategy that fits with the parameters of the industrial investment future in the province.

5. Literature Review

Investment was and still of great interest of developed and developing countries alike, because of its economic and social outcome that is reflected on the level of progress of the societies of these countries.

One important fact that countries must take into consideration in order to cope with the rapid world economic progress is transforming from a resource and consumption based economy to a manufacturing and investment oriented economy. Countries have to work on building industrial base that will allow it to reduce its dependence on imports and keep more value within the economy.

Degree of liberalization is one of the main determinants of investment, the more liberalized the trade regime is, the more investment they attract. Investment on human capital is needed to enhance the absorptive capacity, which in turn facilitates technology transfer, or trade reforms to increase access to foreign capital and intermediate goods.

A study that finds a positive effect of FDI is that of Griffith, Redding and Simpson (2003), which investigates both the dynamics of productivity growth in manufacturing establishments in the U.K. from 1980 to 1992 and the role of foreign multinationals. The authors focus on two mechanisms through which inward FDI can affect either the level or the growth rate of domestic productivity, the first mechanism is the introduction of new technologies. The second is that a foreign presence may increase competition in the domestic market, as well as broaden the market by opening up to foreign markets. They find that foreign firms do indeed play a role in the convergence process, as do other high-productivity domestic firms. An increased foreign presence within an industry is correlated with productivity growth in domestically owned establishments through increased speed of technology transfer. The latter is consistent with foreign presence stimulating competition and increasing incentives for technology adoption[1].

In a study conducted by Paolino (2009) examining the domestic investment, economic growth and human development factors on foreign direct investment into China, the study indicate that when domestic investment and economic growth in China are increasing, foreign direct investment is attracted to the country. Hence, domestic investment is an important determinant to attract foreign investment. Domestic investment must be given priority than foreign investment.

Growth depends on savings and investment in human capital on one hand Lucas (1988), and investment in research and development on the other, Romer (1990) and Mattana (2004). In addition, it is argued that the free market leads to less than optimal level of capital accumulation in human capital and research and development. Therefore, the government may improve the efficiency of resource allocation through investment in human capital, and encouraging private investment in high-tech industries

Jameel et al (2003) discussed the relationship between intensive use of technology and demand for both labor and capital elements in economic activities in the long term, as well as their relationship to production costs. The study included three major industries in Jordan, chemical, manufacturing and extractive industries. One of the most important results was that the use of information technology has led to increased demand for labor component, also these industries helped to increase the level of investment to its maximum potential and achieve cost savings accompanied by expansion of production volume.

A study was conducted by Al-Dhmour (2004**)** on 41 companies which have joint investments in Jordan. The study aimed to identify and analyze the motivating factors for joint investment in Jordan and to determine their significance, as well as to identify investors' satisfaction with the elements of investment environment in Jordan and analysis of the relative importance of the criteria used in the selection of a local partner. The study concluded a set of results, the most important one was; there is an acceptance by investors of the joint investment incentive. The level of investors' satisfaction in the elements of investment environment was ordinary. The study

1 United Nations Industrial Development Organization (2007), "Determinants of Total Factor Productivity: a Literature Review" Anders Isaksson Research and Statistics Branch Staff Working Paper 02.

also concluded that the possibility to classify the selection criteria of local partner was based on four key factors, namely: knowledge and ability to communicate with official authorities, marketing capabilities, technical and administrative capabilities, and personal and regulatory compliance.

Ministry of Industry and Trade (2010) in collaboration with governmental and private agencies in the industry sector has developed a general framework of national industrial policy (National holistic Programme for rehabilitation and development of industrial sector in Jordan). The study was culminated in the formulation of Jordanian national industrial policy within six axes formed a whole integrated system of policies aimed at achieving sustainable development, where these themes include: policies and legislations, government actions, infrastructure support, information and services, financial and technical support, development of exports, investment encouragement, human resources, environmental protection, specifications and standards, and finally the partnership of the public and private sectors and activating the role of private sector. The Governorate of Ma'an could implement these policies for the promotion of investment in the area.

Khrais et al. (2010) conducted a study on constraints facing garment industrial sector operating within QIZ in Jordan. The study reveals that the level of basic services infrastructure, customs and clearance procedures, double standards procedures, and Egypt's signing the agreement of qualified industrial zones are all problems facing garment industrial sector operating within qualified industrial zones in Jordan. The study recommends effective tools to solve the problems facing the garment manufacturing industries operating in the QIZ in Jordan[1]. These problems are common for the industrial sector in Jordan, solving such issues could be of a great help to promote investment in Ma'an.

Al-Shoura and Al-Bakri (2013) in the statistical analysis of their study "The evaluation of investment environment in the industrial activity in Jordan" showed that the characteristics of economic infrastructure, the economic investment environment and the industrial free zones have positive impact on attracting foreign investments[2].

A Study by Al-Hussein Bin Talal University (2004), the University has carried out a survey on economic and social reality of Ma'an Governorate. The most important indicators shown by the survey, which are related to industrial and economic sector, were as follows:

- General illiteracy rate for individuals over the age of 15 years was (15.2%).
- Percentage of labor force for individuals aged 15-64 years was (47.5%); (percentage of actually employed was (28.5%), unemployed (19%).
- Percentage of individuals employed in the industrial sector whose ages are 15-64 years was (5.3%).
- Percentage of families that depend on handicrafts as income was (4.6%).
- Percentage of families that intend to establish income-generating projects of industrial projects (4.2%), and craft projects (9.4%).

6. Theoretical framework

How can governments more effectively promote their locations? Industry is considered as one of the most important achievements of societies, it is an indicator of living standard of a society, social welfare and progress in various sectors, which leads to higher employment levels. Industry also contributes to development of education and all other economic and social sectors; thus, it measures the progress or failure of a society.

According to Moore "industry is the total physical production that comes using machinery through various sources of energy", Addakks (1999). Industry has also been defined as "All sectors of the industry and its branches, including any partial or total change of material to produce a product which differs in terms of description, shape, characteristics and composition, so that these works are constantly taking place within their own facility," (Jordanian Investment Encouragement Law, 1995).

Industry includes three main groups which are: First, Extractive industry based on the extraction of raw materials from earth. Second, manufacturing industry based on the conversion of material to another material. Third, The construction industry that includes various constructions, Addakks (1996).

The human factor, and what it aspires to the well-being and improvement of living standards and the achievement of social goals, is the focus of industry and the main aim of manufacturing process. For this, individuals shift towards industrial action depends on several factors; the most important are: (Addakks, 1999):

1. Selection of Work: it differs from one society to another depending on the technological level of the community and availability of alternatives to work. In advanced industrial societies, industrial worker chooses industrial work for lack of alternative work, because of the control of industrial sector on other sectors. In developing societies, due to the weakness of industrial sector and limited production, individuals go to professional

1 Khrais, E., Azzam, Z. & Assaf, A. (2010). Constraints Facing Garment Industrial Sector Operating within the Qualified Industrial Zones in Jordan, Zarqa Journal for Research and Studies Humanities, 10(2), 82-91

2 Al-Shoura, M. & AlBakri, A. (2013). The evaluation of the investment environment in the industrial activity in Jordan, Journal of Accounting and Taxation, 5(1), 15-26.

alternatives instead of working in the industry.
2. Type of business: the profession is gaining great interest by worker, in addition to being a means to earn a living and satisfaction of material needs; it is also a way to achieve self-fulfillment and social status. However, the worker tendency to a certain profession is subject to the terms of that profession in terms of level of education and experience required efficiency and field work.
3. Type of Industrial Corporation: Industrial Corporation is considered as an attractive element to the worker through several variables, such as nature of its production, large size, reputation, financial, social advantages and services it offers.
4. Other factors: include culture of individuals, work difficulty, wage rate, work site of work and its distance from worker's place of resident and other factors.
Despite the importance of industry in the development of national economies, developing countries are lagging behind in this sector, particularly at the level of heavy industry. Economies of developing countries in general face many problems, including the following:

1. Lack of financial resources, and general weakness in most economic activities.
2. Accumulation of debt, which exhausts these countries and restricts the available financial resources channeled towards diversified investments including industrial investments.
3. Migration of many individuals with talent due to lack of financial and physical facilities that stimulate creativity and innovation, such as lack of laboratories and shortage of funding for research and development purposes
4. Obvious weaknesses in the administrative departments of institutions in developing countries in general, facing many problems which are as follows (Shehadeh, 2001):
    a. Restrictions in the regulations and procedures that result in the accumulation of transactions and delay of approvals.
    b. Surplus labor, which paralyzes the ability to fast-moving and creates fake jobs and increases restrictions on transactions.
    c. Meager wages that do not attract the most efficient workers and make some of them to conduct illegal ways to meet their needs.
    d. Failure to provide dedicated resources for public institutions, which increases the rigors of working conditions and the difficulty of dealing inside.

With regard to Jordan, in particular, its economy is not far behind from the previous problems; in addition to that it is facing particular problems which in turn affect the industrial sector. Alenaimat and Bakhit (2005) have summed the most important of these problems and issues as followed: unemployment, poverty, small size of market, instability of area politically and security, high imported energy costs following Iraq War, debt, weakness of productive base, trade deficit, and budget deficit. Fakhoury (2002) adds the problems of high population growth and low standard of living, which is an indication that would put a strain on national economy and the ability of Jordan in terms of economic and social development.

7. Investment climate in Jordan and Governorate of Ma'an:

Investment is one of the most important elements of economic and social life, it depends on many activities that achieve comprehensive and sustainable development, as well as being the backbone of the most important issues in dealing with social problems such as poverty and unemployment, Al-Dhmour (2004).

Investment has multiple concepts, as it was defined as "the use of savings of goods that are not consumed in the manufacture or product interaction", as it was also defined by others as "the purchase of capital goods, which are used directly in the production process, such as the purchase of machinery and buildings, or purchase additional productive assets from third parties or its recreation", Mayada (1985).

Generally, investment climate is defined as: the overall situation and circumstances affecting the flow of capital and employment trends, which include political and economic dimensions and efficiency and effectiveness of administrative regulations that must be appropriate and suitable to attract and encourage local and foreign investments, Ereqat, (1998).

The successive Jordanian governments have adopted in the past three decades, a set of policies and practical steps that contribute to the overall economic development orientation towards the development and promotion of investments. Hence, investment climate in the Kingdom, particularly in Ma'an, is affected by variety of factors, the most important of which are summarized in the following:

First: general investment direction of the Government:

Generally, there is a plan towards the development of investments by the government, and the most important evidence of this plan is as follows:

a. To promote infrastructure investment, which can be achieved throw: (Tareef, 2002)
    - Strengthening economic liberalization and removal of barriers to trade and investment.
    - Achievement of financial and monetary stability.

- Restructuring capital market.
- Privatization.

b. Engage in international and bilateral agreements with Arab and foreign countries, and building industrial cities, and promotion of Qualified Industrial Zones.

Second: Support of Small and Medium Enterprises:

The small and medium enterprises are considered the sources of national income, and the basic drive of national economies. International statistics indicate that the contribution rate of small and medium-sized enterprise is (70-80%) of GDP. A report prepared by the Directorate of Competitiveness in the Ministry of Planning and International Cooperation has been pointed out that small and medium-sized enterprises in Jordan representing 98% of the total public installations, employing about 6% of the workforce and contributes to 50% of GDP, Ministry of Planning and International Cooperation (2014).

In the Kingdom, there are various active programs aim at supporting small and medium enterprises that employ between 5-250 workers in the sectors of industry and services. Currently, the government is working to coordinate and unify the efforts of these programs to enhance the competitiveness of national economy through the provision of a strategy for the development of these projects, which are mostly complementary to each other and can be collected within five groups provide technical and technical assistance, consulting, financing, training and support policy, Ministry of Planning and International Cooperation (2004).

Third: Investment Promotion Law:

Jordan Investment Bureau (JIB) as a private institution implemented legislation that would attract, motivate and encourage domestic and foreign investment through customs and tax exemptions.

With regard to industrial projects, Ma'an is classified as a category (C) development area that gets tax exemptions by 75% as per the Investment Promotion Law. The industrial city of Ma'an, received a number of incentives and exemptions to be granted to the investor such as:

A. Exemption from social services and income tax by 100% for a period of 20 years.
B. The existence of government support programs to bear part of the Jordanians workers costs during the training period including wages, transportation and meals.

Fourth: Elements of Investment Business:

Huge resources and economics of scale are needed for many organizations to compete globally Amah, et al. (2013)1. Investment business depends on a set of elements necessary for the completion of development and its activities. According to Amish (2001) the most important elements include natural resources, qualified and efficient human resources, scientific and technical resources, and cognitive and experience resources.

Governorate of Ma'an occupies a large amount of natural resources and wealth of Jordan. The economic value of these resources qualifies the governorate to attract huge financial investments to exploit these resources. The most important economic resources available in the governorate include:

a) **Phosphate**: available in large economic quantities, where Jordan is among the top six exporting countries. Despite the existence of joint ventures for the production of many of phosphate products, this resource can be tapped with large quantities and high quality with great demand for its products globally.
b) **Cement**: available in some areas of the province, but untapped yet.
c) **White Cement**: available at Al-Sharaah areas, but untapped yet.
d) **Limestone:** used in manufacturing Portland cement, white cement, ornamental stones and construction stone industry.
e) **Glass sand:** Glass sand available in the Ma'an area and considered as the finest quality with purity of 99%, available in large quantities and used in glass industry, and manufacturing of some computers and other glass industry requirements.
f) **Clay**: used in pottery, bricks, construction tools, sewer pipes and tiles, heaters, pipes for electrical extensions and electricity switches and other similar industries.
g) **Sandstone:** available in economic quantities and is used in construction purposes.
h) **Tuff**: used in manufacturing of insulating materials (rock wool) and light concrete prefabricated concrete, such as plates.
i) **Basalt:** used in rock wool manufacturing and cement shields resistant to radiation, paving, paving railway track.
j) **Semi-precious stones:** including quartz and black granite, sandstone and Agate.

Other investment elements, it can be said that the province has satisfactory levels of human resources and training centers, in addition to Al-Hussein Bin Talal University.

8. Methodology:

The study sample, table 1, consisted of 300 participants spread over four main administrative divisions in the

1 Amah, E., Nwuche, C. A. & Chukuigwe, N. (2013). The influence of size on organizational climate and corporate performance in the Nigerian oil industry, IOSR Journal of Humanities and Social Science, 16(5), 38-45

governorate, namely, Ma'an District, Al-Shoubak, Petra, and Al-Husaineh. Out of this number, 186 questionnaires were returned; only 173 were usable. The overall response rate, as in Table 1, was about 58%, which is considered high, Sekaran (2003).

Table 1. Distribution of questionnaires according to administrative divisions of Governorate of Ma'an

Administrative divisions	Distributed questionnaires	Recovered questionnaires	Response rate
Ma'an District	150	80	0.53
Al-Shoubak	50	30	0.60
Petra	50	34	0.68
Al-Husaineh	50	29	0.58
Total	300	173	0.58

Secondary data such as academic studies, books, periodicals and Internet websites were utilized. In addition, in-depth interviews with specialists and those interested in investment promotion were conducted to develop a special questionnaire covering all dimensions of the study variables, namely, obstacles, investment opportunities, and Successful future projects. To achieve validity of the study instrument, it has been sent to a group of specialists in the field of study where some questionnaire items were modified according to their opinions and suggestions.

The questionnaire consisted of three main parts. The first part contains 14 items, where the respondents were asked to rate their responses to which extent these items represent obstacles constrain the industrial projects in the governorate of Ma'an. The second part contains 12 items, where the respondents were asked to rate their responses to which extent these items represent Investment incentives in governorate of Ma'an. The third part contains 14 items, where the respondents were asked to rate their responses to which extent these items represent successful future projects in the governorate. The Likert scale was used to measure all three variables, ranging from minimum of 1="strongly disagree" to the maximum of 5= "strongly agree".

The methods of analysis employed in the study were descriptive statistics, test for normality, and one sample t-test. In addition, Cronbach's alpha was used to test stability of the measuring instrument. The values, as presented in Table 2, exceed the level of 70%, a ratio that can be reliable for the purposes of analysis and draw conclusions, Hair et al. (2003).

Table 2. Cronbach's alpha reliability coefficients for variables

Variables	dimensions	alpha
The instrument	40	0.87
Obstacles	14	0.78
Opportunities	12	0.80
Successful future projects	14	0.77

8.1 Study variables

A. Obstacles: this variable represents the problems and difficulties which stand in the way of evolution of current industrial projects and for the establishment of future projects. Fourteen obstacles have been addressed in this study.
B. Opportunities: this variable represents positive environmental factors (social, economic, political, and geographical factors) that help in creating new investment opportunities and encourage domestic and foreign investment capital to be invested in the proposed projects.
C. Successful future projects: this variable represents areas available for domestic and foreign investments, which is expected to be accomplished subsequent to elimination of obstacles and exploitation of available incentives.

8.2 Test of normality

Kolmogorov-Smirnov test was used for the current study to know whether the data are normally distributed or not. Table 3 shows that data for all variables are normally distributed.

Table 3. K-S Tests of Normality

	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
Investment obstacles	0.084	173	0.181
Investment opportunities	0.086	173	0.165
Successful future projects	0.097	173	0.083

9. Hypotheses testing and discussions

One-sample t-test was conducted for testing hypotheses from H01 to H03 to know whether there are investment obstacles, investment opportunities, or successful future projects in the governorate of Ma'an.

$H_0$1: There are no obstacles** constrain **the growth of industrial investments in the governorate of Ma'an.

Table 4, one-sample t-test shows that there are serious obstacles constrain the growth of industrial investments in the governorate of Ma'an; where the values for this variable were as follows: t(172)=15.50, P<0.001. In addition, as shown in Table 4, the descriptive statistics support one-sample t-test, where (mean score=3.18), is more than the general mean in this study, which is moderately agree (mean=3). These results indicate the existence of investment obstacles in the governorate of Ma'an.

Table 4. Descriptive statistics and one-sample t-test for Investment obstacles in the governorate of Ma'an

Investment obstacles	One-sample t-test		
	t	*Df*	Significance
	15.50	172	0.000
	Descriptive statistics		
	N	Mean	Standard Deviation
	173	3.18	0.58
Extent of obstacles existence: 1= strongly disagree; 2= disagree; 3=moderately agree; 4= agree; 5= strongly agree.			

In Table (5), descriptive statistics, we can divide the items into two groups. First group contains seven items that achieved mean score more than (mean=3) which is the general mean in this study. The most important items that considered as investment obstacles in this study were lack the infrastructure (mean score=4.50) and lack of skilled labor (mean score=4.04), where they achieved the highest mean score respectively. The other five items that achieved mean score more than the general mean are: the weakness of the governmental media to attract industrial investment (mean score=3.99), scarcity of research and feasibility studies for industrial projects (mean score=3.84), tendency in the governorate towards the government jobs (mean score=3.67), the weakness of incentives offered by the investment promotion laws for investors (mean score=3.45), and the small size of the domestic market in the governorate (mean score=3.99).

Second group also contains seven items that achieved mean score less than the general mean. The decline in mean score means that these items could not be considered as enormous obstacles to the investments in the governorate. Lack of capital (mean score=1.62) and natural resources (mean score=1.63) are most available resources in the governorate. These two items followed by proper planning in selection of appropriate industrial projects in the governorate (mean score=1.67). The rest four items are the difficulty of obtaining private financing from banks and other lending institutions (mean score=2.00), weakness of government funding for industrial projects (mean score=2.10), high level of production costs (mean score=2.16), and finally the decline in educational and cultural standards (mean score=2.33).

Table 5. Investment obstacles in the governorate of Ma'an

	Obstacle	Mean	SD
1-	Lack of infrastructure to assist in various service sectors. (Consulting centers, decision-making centers, public and private education services, health services, recreational places, communications, transportation, hotel services, ... etc.	4.30	0.96
2-	Lack of availability of skilled labor in the governorate.	4.04	1.39
3-	The weakness of the governmental media to attract industrial investment to the governorate.	3.99	1.05
4-	Scarcity of scientific research and feasibility studies for industrial projects in the governorate.	3.84	0.99
5-	Tendency towards government jobs (public service).	3.67	0.96
6-	Weakness of incentives offered by investment promotion law for investors.	3.45	0.94
7-	Small size of domestic market in the governorate.	3.19	1.20
8-	Decline in educational and cultural standards of the people in the governorate.	2.33	0.93
9-	High level of production costs.	2.16	0.99
10-	Low government funding for industrial projects.	2.10	0.92
11-	Difficulty of obtaining private financing from banks and other lending institutions.	2.00	0.90
12-	Lack of proper planning in the selection of industrial projects appropriate to the nature of the governorate.	1.67	1.02
13-	Lack of natural resources and wealth.	1.63	0.98
14-	Lack of capital.	1.62	1.10

***$H_0$2:* There are no opportunities that can be considered as incentives for industrial investment in the governorate of Ma'an.**

One-sample t-test, Table (6) shows that there are opportunities that can be considered as incentives for industrial investment in the governorate of Ma'an; where the values for this variable were as follows: t(172)=17.90, P<0.001. In addition, as shown in Table 6, the descriptive statistics support one-sample t-test, where (mean score=3.35) is

more than the general mean in this study, which is moderately agree (mean=3). These results indicate that there are real opportunities to encourage investment in Ma'an.

Table 6. Descriptive statistics and one-sample t-test for Investment opportunities in the governorate of Ma'an

Investment opportunities			One-sample t-test		
			t	Df	Significance
			17.90	172	0.000
			Descriptive statistics		
			N	Mean	Standard Deviation
			173	3.35	0.63
Extent of representing investment incentives: 1= strongly disagree; 2= disagree; 3=moderately agree; 4= agree; 5= strongly agree.					

Table (7), the descriptive statistics, indicates that all (12) items achieved mean score more than the general mean in this study. The best three items that considered opportunities were abundance and diversity of natural resources (mean score=4.38), the geographical location of the governorate and its easy access to international markets (mean score=4.19), and the existence of industrial city (mean score=4.02). The other nine items are still considered important opportunities that encourage industrial investments in the governorate of Ma'an.

Table 7. Investment opportunities in the governorate of Ma'an

Investment Incentives		Mean	SD
1-	Abundance and diversity of natural resources.	4.38	1.23
2-	The geographical location of the governorate and its easy access to international markets.	4.19	0.98
3-	The existence of industrial city in the governorate.	4.02	1.30
4-	Facilities offered by the investment promotion laws.	3.89	0.99
5-	The important location of the governorate, near the port of Aqaba.	3.84	1.30
6-	Positive viewpoint by people of the governorate towards industrial investment.	3.82	0.88
7-	Security and stability in the governorate and whole country.	3.65	0.99
8-	The existence of Al-Hussein Bin Talal University.	3.59	0.97
9-	The presence of handicraft areas.	3.28	0.97
10-	The availability of government support for industrial projects in the governorate.	3.10	1.22
11-	The existence of Aqaba Railway.	3.05	1.50
12-	The existence of overland port.	3.04	1.06

***H_03:* There are no investment projects that have opportunities** for success in the future **in the governorate of Ma'an.**

Table (8), one-sample t-test, shows that the proposed projects in this study have in general, opportunities to be successful in the future in the governorate of Ma'an; where the values for this variable were as follows: $t(172)=10.23$, $P<0.001$. In addition, the descriptive statistics, as shown in Table (8), support one-sample t-test, where (mean score=3.08) is more than the general mean in this study.

Table 8. Descriptive statistics and one-sample t-test for successful future projects in the governorate of Ma'an

Successful future projects			One-sample t-test		
			t	*df*	Significance
			10.23	172	0.000
			Descriptive Statistics		
			N	Mean	Standard Deviation
			173	3.08	0.74
Extent of successful future projects: 1= strongly disagree; 2= disagree; 3=moderately agree; 4= agree; 5= strongly agree.					

Table (9), the descriptive statistics, indicates that only five projects were found to be successful in the future out of fourteen proposed projects. These projects are glass factory (mean score=4.16), plastics factories (mean score=4.09), marble factories (mean score=3.88), clothing factories (mean score=3.87), and light building materials factories (mean score=3.22).

The worst four projects to be invested in the future are: dairy factory (mean score=1.96), factories for stone and brick (mean score=1.75), factories for meat packaging (mean score=1.72), and olive presses (mean score=1.58).The other five projects that were found to be not successful in the future are: white cement factory (mean score=2.79), tires factory (mean score=2.40), factories for normal cement (mean score=2.34), workshops to manufacture pottery products (mean score=2.21), and workshops to manufacture traditional textile (mean score=2.13). Despite these projects did not achieve acceptable mean scores, they still have opportunities to be

successful projects in the future.

Table 9. The successful future investment projects in the governorate of Ma'an

	Proposed projects	Mean	SD
1-	Glass Factory.	4.16	1.02
2-	Plastics factories.	4.09	1.60
3-	Marble Factory.	3.88	0.99
4-	Clothing factories.	3.87	0.78
5-	Light building materials factories (screws, paint, etc ...)	3.22	1.23
6-	White Cement factory.	2.79	0.87
7-	Tires factory.	2.40	0.88
8-	Factories for normal cement.	2.34	0.83
9-	Units for manufacturing pottery products.	2.21	1.10
10-	Traditional textile manufacturing units.	2.13	0.99
11-	Dairy factories.	1.96	1.30
12-	Stone and brick factory.	1.75	1.92
13-	Factories for meat packaging.	1.72	1.44
14-	Olive process.	1.58	0.95

10. Findings

The results presented in Table 4 show, that there are serious obstacles constrain the growth of industrial investments in the governorate of Ma'an. Based on the descriptive statistics presented in Table 5, the most important items that considered as investment obstacles were lack of infrastructure, lack of skilled labor, absence of the governmental media to attract industrial investment, scarcity of research and feasibility studies for industrial projects, low incentives offered by the investment promotion laws for investors, and the small size of domestic market in the governorate. On the other hand, there are some items considered as obstacles but do not constitute serious constraint to industrial investment in the governorate of Ma'an including, lack of capital, natural resources, proper planning in selection of appropriate industrial projects, difficulty of obtaining private financing, shortage of government funding, high production costs, and finally the decline in educational performance.

As presented in Table 6, the results show that there are real incentives for industrial investment in the governorate of Ma'an. The descriptive statistics, shown in Table 7, indicate that all of 12 items that classified as opportunities in this study were found to be incentives for industrial investment in the governorate. The best three items that considered opportunities were abundance and diversity of natural resources, geographical location of the governorate and its nearness to international markets, and the existence of industrial zone. The existence of other nine items is still considered important opportunities that encourage industrial investment in the governorate of Ma'an. These items include: investment promotion laws, governorate location (near the sea port of Aqaba), positive viewpoint towards industrial investment, security and stability, Al-Hussein Bin Talal University, craft areas, government support for industrial projects, Aqaba Railway, and overland port.

The industrial investment is one of the most important factors that help in achieving sustainable economic development. The governorate of Ma'an has huge and diverse reserves of natural resources of raw materials and high rate of demand on its products locally and at global levels. Tables 8 and 9 show that the governorate of Ma'an is eligible to attract many industrial projects which have opportunities to be highly successful in the future such as glass factories, plastics, marble, clothing, and construction industries. On the other hand, the other nine proposed investment projects mentioned in table 9 have little opportunities to be successful in the future include factories such as: white cement, tires, normal cement, pottery products, traditional textile, dairy, stone and brick, meat packaging, and olive presses.

Finally, this study is consistent, in general, with the prior studies conducted in Jordan about investment obstacles and opportunities. It is also partially consistent with the study conducted by Almagaira (1993) and the study conducted by Ubidat and Aljulany (1993)

11. Summary and conclusion

The aims of this study are to explore the obstacles which constrain the evolution of the current and future industrial projects in the governorate of Ma'an, explore the opportunities that can be considered as incentives for industrial investments in the governorate, and to explore the investment projects that have great opportunities to be successful in the future.

The study reveals that there are serious obstacles constrain the growth of industrial investments in the governorate of Ma'an. There is a need for increasing government attention to improving basic infrastructure, and work to guide the private industrial sector and stimulate development towards adopting a more active role in maintaining service to the industry.

The findings show that there are many of real incentives which promote industrial investment in the governorate. For these reasons, the governorate is eligible to attract many industrial projects which have opportunities to be highly successful in the future. Regarding the projects that have little opportunities to be successful in the future, the government is required to carry out more feasibility studies about these projects. The government is required also to exploit the potentials and opportunities available at the governorate in directing industrial investments towards the available resources**.** It is also important to marketing the governorate of Ma'an through various media and to highlight the chances of success in various fields of industrial investment in a more positive way**.**

References

Addakks, M. Abdel-Mawla, (1996), "Social Change, Theory and Practice", 2nd edition, Dar Malawi for Printing and Publishing, Amman.

Addakks, M. Abdel Mawla, (1999), "*Industrial Sociology*", 1st edition, Tariq Center for University Services, Amman.

Al-Dhmour, H., (2004), "Motivating factors for joint investment in Jordan which specify local partner: Introduction of a strategic marketing", Dirasat Administrative Sciences, 31(1), 63-82.

Al-Hussein Bin Talal University, (2004), "*Socio-Economic Reality of Ma'an province, Results of the second Socio-Economic Survey- gap analysis*", Ma'an-Jordan.

Al-Kalifa, A. and Peterson; E., (1998), "Partner Selection Process in International Joint Ventures", European Journal of Marketing, 33 (11/12), 1064-1081.

Al-Maghayrah, A. (1993), "*Investment and Economic Growth in Jordan during the period (1970-1990)*", M.A. Diss. Yarmouk University, Jordan.

Alnaimat, Abdel-Salam, and Bakhit, Yazan, (2005), "*The Socio-Economic Impacts of the Association Agreement between Jordan and the EU Countries*", Royal Scientific Society, (ISBN 9957434225) Amman.

Al-Shoura, M. & Al-Bakri, A. (2013), "Evaluation of Investment Environment in the Industrial Activity in Jordan", Journal of Accounting and Taxation, 5(1), 15-26.

Al-Tarawneh; M., (1997), "Labour Productivity in the Jordanian Industrial Companies - an Analytical Study", Dirasat, Administrative Sciences, 24(1).

Amah, E., Nwuche, C. A. & Chukuigwe, N. (2013), "The influence of size on organizational climate and corporate performance in the Nigerian oil industry", IOSR Journal of Humanities and Social Science, 16(5), 38-45

Amish; Samir, (2001), "Greater Arab Free Trade Area: Possibilities and Means," Arab Economic Cooperation and Prospects for the Future, Arab Foundation for Studies and Publishing, Beirut.

Borensztein; E., De Gregorio, J., and Lee, J-W., (1998), "How Does Foreign Direct Investment Affect Economic Growth? ", Journal of International Economics, 45, 115-135.

Bundogji, Mohammed Riaz, (1997), "Extent of Interest of Plastic Products Manufacturing Companies for Domestic Use in Greater Amman Municipality-Jordan (Quality Control on Products), a field study," Journal of Management Science Studies, Vol. 24, No2.

Chapman, R. & Al-Khawaldeh, K. (2002), "TQM and Labour Productivity in Jordanian Industrial Companies", TQM Magazine, 14(4), 248-262.

Ereqat, Harbi, (1998), "The status of Investment in the Arab World with Special reference to the Hashemite Kingdom of Jordan". Working Paper, First Conference on Banking and Financial Sciences, Yarmouk University-Jordan.

Fakhoury, Imad, (2002), "Development of Legal Forms of Investment Environment in Jordan", Investment in Jordan, Opportunities and Prospects, Ist edition, Middle East Studies Center, Amman

Faras, R. Y., & Ghali, K. H. (2009). Foreign Direct Investment and Economic Growth: The Case of the GCC Countries. International Research Journal of Finance and Economics ISSN 1450-2887 Issue 29 (2009).

Farzin; H.,(1993) "Importance of Foreign Investment for Long Run Economic Development of the UAE", World Development, 21(4), 509-521.

Hair, J., Babin, JR, B., Money, A. and Samuel, P., (2003), "Essential of Business Research Methods", John Willy & Sons, Inc.

Hindawi; Ahmed, (1999); "State's Role in Supporting and Encouraging Small and Medium-Sized Projects (Industries)", Second economic seminar: the role of small businesses in the economic and social development of the territory of the North, Irbid National University

Investment Promotion Law, Law No. (16) of 1995, as amended,(1995), Amman-Jordan.

Jameel, R., Mishal, A., and Yassin, S. (2003), "The impact of information technology on employment and investment size in the manufacturing sector in Jordan," Journal of Studies, Management Science, Volume 30, Issue 2.

Khrais, E., Azzam, Z. & Assaf, A. (2010), "Constraints Facing Garment Industrial Sector Operating within the Qualified Industrial Zones in Jordan, Zarqa. Journal for Research and Studies Humanities, 10(2), 82-91.

Lataifah, Amjad, (1996), "Foreign Investment and its Role in the Development of Jordan", unpublished Master Thesis, Yarmouk University, Jordan.

Lucas, R. (1988). "On the Mechanics of Economic Development" Journal of Monetary Economics, No. 22, pp. 3-42.

Mattana, P. (2004). "The Uzawa-Lucas Endogenous Growth Model" Aldershot: Ashgate Publishing Limited.

Ministry of Industry and Trade, (2001), "General Framework of the National Industrial Policy; the national program for the rehabilitation and development of industrial sector in Jordan", Amman- Jordan

Ministry of Industry and Trade, (2010), "National Industrial Policy; the national program for the development of industrial sector in Jordan 2010-2014", Amman- Jordan

Ministry of Planning and International Cooperation, (2004), (2014) http://www.mop.gov.jo/

Mrakusen, James R. and Venables, Anthony J.,(1997) "Foreign Direct Investment As A Catalyst for Industrial Development", NBER, Working Paper 6241.

National Industrial Policy "Industrial Relieve Program 2010-2014"

Obaidat, Muhammad, and Joulani, Fayez, (1993), "Reasons for hindering Industrial Projects in Jordan", working paper, First Conference on Banking and Financial Sciences, Yarmouk University-Jordan, Journal of Studies, Volume XX (a), 3rd issue.

Paolino, M. (2009). The Effect of Domestic Investment, Economic Growth and Human Development on Foreign Direct Investment into China. Bryant Economic Research Paper Vol. 2. No. 11.

Raafat, Mayada, (1985), "Arab Development in Light of the Current Economic Crisis", Arab Planning Institute, Kuwait

Rachel Griffith & Stephen Redding & Helen Simpson, 2003. "Productivity Convergence and Foreign Ownership at the Establishment Level," CEP Discussion Papers dp0573, Centre for Economic Performance, LSE.

Paul, M. Romer. (1990), "Endogenous Technological Change" The Journal of Political Economy, Vol. 98, No. 5, pp. s71-s102.

Sekaran, Uma, (2003), Research Methods for Business - A Skill Building Approach, 4th. ed., John Willy & Sons, Inc.

Shehadeh; Ibrahim, (2001), "Administrative Reform and its Impact on Arab Economic Cooperation," Arab economic cooperation and future prospects, Arab Foundation for Studies and Publishing, Beirut

Siam; Walid, and Siam; Ahmed, (1999), "Role of the Means of Financing of Small Economic Development Projects," Second Economic Seminar: The role of small businesses in the economic and social development of the territory of the North, Irbid National University.

Tarif, J. (2002). "Infrastructure investment and investment culture and their role in economic development," investment in Jordan- opportunities and prospects, 1st ed., Middle East Studies Center, Amman.

United Nations Industrial Development Organization (2007), "Determinants of Total Factor Productivity: a Literature Review" Anders Isaksson Research and Statistics Branch Staff Working Paper 02.