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The Economic Potential of Industrial Investment in Karbala Governorate

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Abstract

In light of the orientation of the economic policy after 2003 in Iraq towards a free economy, and support for investment activity in the various sectors of the economy, especially the industrial sector, this study came (the economic potential of industrial investment in Karbala governorate). Because of the importance of industrial investment in achieving economic and social advancement in order to achieve development in all its forms, the study focused on the economic potentials that characterize the Karbala governorate. Many production and consumer projects.

Keywords

Not given

JEL Classifications: J11, F43

1. Introduction

Industrial investment is the cornerstone and a basic necessity for increasing production and advancing the economy, especially in developing countries, because it is the main and effective means of industrial development. Plans in advance to invest the available capabilities, which will achieve an increase in the society's wealth and economic capabilities, as the industrial sector represents the basic base for other economic sectors. Among the advantages of industrial investment (it leads to an increase in the efficiency of the exploitation of available resources to establish new industrial projects that contribute to the development of production

capacity) and thus works to increase the national product. From manufactured materials and necessary commodities, through investment, local and foreign capital and labor are mobilized, and the economic and industrial reality in any region is promoted. Therefore, ambitious plans must be implemented to advance industrial investment.

2. Problem of the Study

The study problem lies in a main question:

(What is the role of economic potential in industrial investment in Karbala governorate?)

This question leads to other questions:

- **1-** What are the spatial trends of industrial investment in Karbala governorate?
- **2-** What is the impact of climatic elements on the variation in the distribution of industrial investments in Karbala Governorate?

3. Hypothesis of the Study

- **1**-Karbala governorate possesses geographical (economic) potentials that are considered as a catalyst for industrial investment in Karbala governorate, and it had a major role in the current investment volume.
- **2-** The economic potential of the governorate contributed to the existence of a suitable environment for creating industrial links and promising investments.
- **3-** The presence of great economic potentials in the province that prepares for the establishment of various industrial projects.

4. Objectives of the Study

- **1-** Studying the impact of economic factors on the volume of industrial investment in the governorate.
- **2-** Identifying the extent of the economic potential in industrial investment in Karbala governorate.
- **3-** Reaching conclusions in order to reduce the obstacles facing the investment process in the future.

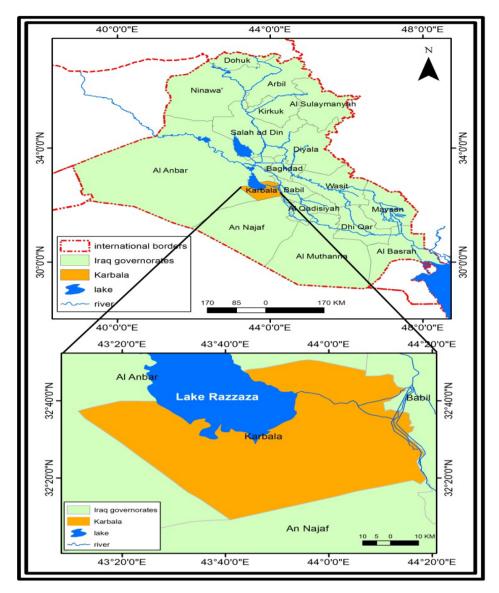
5. Study Area Boundaries

1- Spatial boundaries: Karbala governorate is located between longitudes (-20-20-44-20) to the east, and between two latitudes (-32-20_-32-40)

Its area is (5034) km2, i.e. (1.1%) of the total area of Iraq. It is located in the center of Iraq and is bordered to the east by Babil Governorate, to the south by Najaf Governorate, and to the west and north by Al-Anbar Governorate.

Karbala governorate consists of seven administrative units (three districts are Karbala district, Hindiya district, and Ain Al-Tamr district).

2- Temporal limits: The temporal limits of the study are between (2010-2021).



Map 1. of the Karbala Governorate, Iraq

Source: Republic of Iraq, Ministry of Water Resources, Survey Authority, Map Production Department, Iraq's administrative map, scale 1:100000, year 2018.

Economic potential and its impact on industrial investment in Karbala Governorate

Natural potentials are essential for the establishment and development of economic activities after they have major capabilities that have an important impact on the success of industrial investment operations, including (raw materials, capital, transportation, energy sources, the market), as these factors work on the settlement of industrial investment activities in the Karbala governorate. And its work is interconnected and intertwined. The more available, the better for industrial investment in the province.

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First: Raw Materials:

The essence of the industrial process is based on transforming the raw material into a more useful material so that its value increases to satisfy multiple needs ¹ Raw materials are a key factor in directing and developing economic activity. There are many raw materials involved in industrial investment projects, they may be (agricultural, both plant and animal or mining). ² It can be in the form of semi-manufactured materials from secondary products ³ and the raw materials vary in their ability to establish industries dependent on them and attract them to their location according to their characteristics and the extent of their exposure to damage ⁴ and in the study area the raw materials vary In terms of quantity, quality and ways of economically exploiting them for the success of industrial investment.

Second: Capital

Industrial investment requires huge, expensive machines and machines, means of transportation, value for the land on which the factories are built, salaries for workers, ⁵ employees and experts, and sums for public services provided to workers. Capital is one of the main capabilities in the success of industrial investment projects that require huge capitals ⁶ and capital is known as (wealth consisting of previous work and used in the production of new wealth). Then it decreases in subsequent years ⁷ and the importance of capital becomes clear in our time, as the global economic equation

(Al-Jumaili & Hamid, 1979),

(Sharif, 1976)

(Al-Shammari & Muaiber, 2008)

(Haroun & Ahmed, 2008), Geography of Industry, first edition, Dar al-Fikr al-Arabi Press, Cairo, 2008, pg. 52.

(Rasul & Ahmed Habib, 1981)

(Imran et al., 2015) [

(Al-Qaidi & Salem, 2009)

It says ((Whenever capital is available in a time and place, industry will be attracted to it ¹ With regard to the study area, which has various capabilities that qualify to be industrial, but these capabilities are difficult to invest in the absence of sufficient capital, whether they are (local or foreign) and the governorate includes many government banks that have an impact on the economic development of the study area, Table (1), but the services of these banks cannot be considered a main basis for the advancement of industrial investment in the governorate, which requires government agencies to provide great support To advance the reality of industrial investment, as it is the main pillar for the development of the rest of the other economic sectors, and the capital is divided into two parts that have an impact on the processes of industrial settlement:

Table 1. Governmental Banks and their Branches in Karbala Governorate

		•
Location	Branch	Bank name
Karbala / the branch next to the masses	Al-Abbas	Al rafidain
photographer's laboratory		
Karbala / opposite the stock exchange	Al shuhada	
Hindi District / Main Street	Hindi	
Al-Hussainiya district	Husseiniya	
Ain Al-Tamr District Center	Ain al tamer	
Karbala / the branch next to the Al-Alawi market	ELHussein	Al rasheed
Karbala / Bab Al-Qibla Street	tuff	
Adjacent to the united garage	Karbala	
Karbala / near the governorate building	Governorate	Agricultural
	Center	
Hindi District / near the fire department	Hindi	
Alhur / Free Agriculture Division	Al hurr	
Al-Hussainiya / Hussainiya Agriculture Division	Husseiniya	
Western Table / Western Table Cultivation Division	western table	
Karbala / Western Abbasid District	industrial	Industrial

Source: field study 12/16/2021 (Al-Saadi & Abdel-Razzag, 2006)

- A- Monetary capital: is the money used to pay the wages of workers, employees and services and to provide the factors of production needed for industrial projects as well as for the development of existing industries 1
- B- Fixed capital: it includes all fixed assets (equipment, machinery and industrial project land).

It is noted that monetary capital is more flexible in the processes of geographical trends of industrial ² settlement

The impact of capital on the establishment of industrial investment in the Karbala governorate is illustrated by the following ³

- A the purchase of land for the establishment of industrial projects.
- **B-** Paying the wages of the workers.
- C- Purchasing the necessary equipment and machinery for the industrial project.
 - **D** Obtaining local and imported raw materials.

Thus, the importance and impact of capital in industrial investment operations becomes clear, as it contributes to providing multiple functions to the economic sector, including:

A- Attracting workers and employees from areas outside the boundaries of the industrial zone, including local and foreign workers.

(Al-Falahi & Qassem, 2009)

(Al-Falahi & Qassem, 2009)

(Al-Saadi & Abdel-Razzaq, 2006)

B- The industrial sector contributes by providing means of transportation such as trucks and railways to transport raw materials and manufactured materials to markets.

With the increasing technological development, the importance of capital in the production of many commodities has increased, and the accumulation of capital is evidence of the success of economic investment operations.

Third: Transportation

Transport is of great importance for various economic activities, including industrial investment, as it helps with the establishment of new industries on the one hand and the development of existing industries on the other hand, as it provides, through its multiple means, entrances towards sources of raw materials or to markets and others ¹ Transport is one of the necessary services The task through which the progress of countries is measured, and it is one of the priorities of the human being to live in a place, is the availability of modern transportation methods ² In addition to the above, the importance of transportation in the industrial aspect emerges in many points:

- A- Transport has a clear impact on industrial development, as it helps in establishing new industries in areas where raw materials of large weights are available.
- **B** Transportation contributes to the industry's enjoyment of the advantages of large production, as the cost of production decreases with a decrease in the amounts of transportation.
- C- Transport is considered a component of modern industries, as the goods produced have no value except when they reach the consumer market 3

Karbala governorate includes many potentials for the establishment of a modern industry if it is invested in a planned economic manner, and because these capabilities exist in many areas in the governorate, starting with raw materials and hand

(Sharif, 1981)

(Al-Dulaimi & Khalaf Hussain Ali, 2009)

(Rasul & Ahmed Habib, 1981)

Therefore, it is necessary to link these parties to means of transportation to achieve the success of the industrial process, and the transportation methods are divided in maintaining the following:

1- Land transportation:

The land transport sector is the mainstay influencing the industrial investment projects in the study area due to its great flexibility. The governorate has a wide network of land transport lines, which are divided into the following:

A- Car transport: It is considered the most important type of transport in the study area because it is characterized by high flexibility and easy access to all investment sites. This type of transport has contributed to attracting many industrial investment projects and settling them in the study area. Car transport methods are classified into several levels:

Main roads: They are of great importance as they are the mainstay for other types of roads, and they link Karbala Governorate with the other governorates. Mostly of two corridors, and is characterized by the presence of a median barrier (intermediate islands), which facilitates the process of transporting raw materials for industrial investment projects and then to the markets again, Table (2).

Table 2. The Paths and Lengths of the Main Transport Routes by Cars Towards the Governorates and Cities for the Year

Length / km	road track		
311	Karbala - Nukhaib - Jdeidet Arar / land pilgrimage		
430	Karbala - Nukhaib - Rutba (Trebil)		
106	Karbala - Musayyib - Mahmoudiyah - Baghdad		
76	Karbala - Najaf		
135	Karbala - Ain al-Tamr - Rahaliya - Fallujah		
498	Karbala - Hilla - Diwaniyah Samawah - Nasiriyah - Basra		
1556	the total		

Source: Karbala Governorate Roads and Bridges Directorate for the year 2020

Secondary roads: These roads are of importance in addition to the main roads of the study area, as they link the districts and districts of the governorate. And the sum of its lengths is (194) km (Table 3)

Table 3. Secondary Land Transportation Routes and their Lengths in Karbala Governorate for the Year 2020

Length / km	its type	road track		
80	tiled interior	Karbala - Al-Razzaza - Ain Al-Tamr		
20	tiled interior	Karbala - Hussainiya - Mafraq		
22	tiled interior	Karbala - Hindi		
18	tiled interior	Karbala - Thermiston		
18	tiled interior	Karbala - the beginning of the road to the		
		pilgrimage		
5	tiled interior	A linking road between the two roads of		
		Babylon - Najaf		
15	tiled interior	The road leading to the cement factory		
16	tiled interior	Karbala - free - perfection		
194		the total		

Source: Karbala Governorate Roads and Bridges Directorate for the year 2020

Secondary and rural roads: These are roads that are paved with a single layer and have a single lane, and most of them branch off from secondary roads towards rural areas in the governorate, Table (4). These roads contribute to marketing agricultural crops to markets, which contributes to reducing cost and time. The ability of the car transport network in the study area to support industrial investment activity, which needs transportation with large loads, but these roads

face in some areas difficulties that sometimes hinder their work, the most important of which are:

- **A-** Exposing its desert paths to sand encroachment.
- **B** The slopes and heights of the road linking Karbala and Ain al-Tamr (topographical variance), as it is a problem for roads and cars at the same time.
- **C-** Cases of erosion as a result of the geological formation of the soil and heavy loads.

Table 4. Asphalted Rural Transportation Roads and their Lengths in Karbala Governorate for the Year 2020

Length / km	road track
63	strategic line road
20	Indian - Khairat - Najaf Road
13	Hindi - Western Table - Khan Quarter
13	Umm Ruwaya - Umm Jader
12	Abraham
10	Hussainiya - Sadat Al Hindiya
10	Hindi - Afar
7	The drink - the support
6	Western table - Al-Ayawj
6	Al-Ayooj - Al-Kaabudi
6	Al-Hafiz - Al-Hussainiya
6	Bab Al Taq - Al Rashidiya
172	the total

Source: Karbala Governorate Roads and Bridges Directorate, Karbala Roads and Bridges Maintenance Manual for the year 2020

From this, it appears that transportation is of great importance, according to which it is considered the main artery in linking the administrative units with the governorate and the governorate's connection with other governorates, in addition to its impact on the following $^{\mathbf{1}}$

- **A** Transporting raw materials to industrial sites.
- **B-** Transferring manufactured products to markets, warehouses, and others.
 - **C-** Transfer of means of production (equipment and machinery)
 - **D-** Transporting manpower to and from work sites

(Al-Janabi & Abdul-Zahra Ali, 2001)

2- Railways: Rail transport is of di

2- Railways: Rail transport is of great importance to industrial projects in the event that plans are implemented to establish railways to reach the industrial areas in the governorate located in the west and southwest of the study area. In Karbala Governorate, there is one train station located to the north of the city of Karbala, about (7) km near the road linking Karbala-Baghdad. The railways were used during the millions of visits that the province is witnessing to contribute to alleviating the burden on car transportation.

Fourth: Sources of Fuel Energy

The availability of energy sources in the required quantities is one of the most important possibilities for the development of industrial investment operations because of its impact on reducing production costs, as it is the most important engine for all economic activities, and it is often preferred to use electric energy compared to other types of energy because of its ability to control and ease of transportation because it does not need to storage operations ¹ so this type of energy must be available permanently for the need of the industrial sectors in the province for electric energy and increasingly ² the demand for electrical energy has increased and escalating in the study area, including the increasing industrial consumption, and the governorate includes Karbala has three stations for the production of electric power ³ Note Table (5).

- 1- Al-Khayrat Gas Station: It is located within the district of Al-Hindiya (Al-Khayrat district). It was established in (2011) and the actual production began in (2013). It includes (12) high-tech obstetric units and the type of fuel used in it is ((light distilled oil, crude oil).)) The fuel is transported to it by truck and a pipeline for transporting fuel originating from the strategic line ⁴
- 2- Al-Kamaliyah station: This station is located in the north-east of the governorate in the Al-Hur district (Al-Kamaliyah area) and work began in it and the actual production was in (2011) with a design capacity (300 megawatts/hour).

(Al-Saadi & Abdel-Razzaq, 2006)

(Al-Akkad et al.)

The electric power is powered by diesel engines, and its actual production capacity is (270 megawatt-hours).

3- Karbala power station (Al Ghazieh): It is located in the south of Karbala district and away from (Najaf - Karbala) road, located in the west of the governorate, a distance of (4) km. 250 megawatts / hour) and its actual energy amounted to (110 megawatts / hour) and it operates on two types of fuel (heavy and light) and the fuel is transported to it through the strategic line, which is only (3) km away from it by pipelines.

Table 5. Electrical Stations, Fuel Type and Production Quantity in Karbala Governorate

Energy produced in megawatt-hours	Design energy in megawatt- hours	Fuel	year of implement ation	Station
860	1250	Crude Oil/Light Distilled Oil	2011	Al khairat gaseous
270	300	Heavy fuel oil/diesel oil	2011	Al kamalia diesels
110	250	Light Distilled Oil/Crude Oil	2012	Karbala invader
1240	1800			the total

Source: Ministry of Electricity, General Directorate of Electricity Production, Middle Euphrates, unpublished data, 2018.

The requirements of industrial projects for energy vary according to the industry and the extent of the availability of this energy, as some industries require large amounts of energy, such as the manufacture of cement and bricks, and some require only specific amounts of energy, and thus the importance and cost of energy differ from one industry to another ¹

In addition, work continues on the completion of the Karbala oil refinery, which is hoped to be completed in the middle of the year (2022), with a production quantity of 140,000 barrels per day of gas, kerosene and other oil derivatives, and it is being established by a Korean company. A foreigner, and from knowing the amount of industrial consumption of electric energy in the province, it is noted that the highest amount was in the year (2015). Karbala province recorded (452) industrial consumers, consumption amounted to (1413731) megawatts/year. Table (6)

(Al-Shiblawy & Abdul-Razz, 1998)

Table 6. The Amount of Industrial Consumption of Electric Energy (MW / Year) in Iraq and Karbala Governorate for the Years (2015 - 2018 - 2020)

K	arbula	Iraq		Year
The amount	The number of	The amount	The number of	
of industrial	consumers in the	of industrial	consumers in the	
consumption	industrial sector	consumption	industrial sector	
460656	452	6449184	13382	2015
398627	423	4783529	13011	2018
396998	438	4962475	13015	2020

Source: Ministry of Electricity. Department of Planning and Studies, Information Technology Department, Annual Statistics, Table 21, p. 22.

Fifthly, the Market

The market represents the final stage of the previous production processes, and the closer the factories are to the markets, the greater the demand for production ¹ Markets geographically ensure a wider scope for the forces of industrial production and motivate them to increase production ² and in order for factories to market and sell their products, there must be markets that absorb production. The existence of a wide market to absorb the industrial product is one of the important capabilities for the development of industry, and the size of the market depends on the number of the population. And the level of their income ³ and Karbala governorate includes a population of (1283,348) people for the year (2020) that can be increased. Other religious shrines, in addition to a number of historical evidence, which makes them a destination for millions of visitors from inside and outside Iraq, which led to the revitalization of the commercial movement and the expansion of the market, as the market is the most important factors to do

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(Rasul & Ahmed Habib, 1981) (Al-Kaabi & Waheed, 2002) (Shebaa & Muhammad Jawad, 2015)

Industry and its development ¹ as other factors may be available for the establishment of the other industry (raw materials, capital, manpower), but the absence of a market for the disposal of the industrial product will stand in the way of the success of industrial projects. The increase in production is linked to the market ability to dispose of industrial products.

Sixth: The Tourism Potential

Karbala governorate is one of the distinguished governorates, as the city of Karbala embraces the shrines of Imam Hussein and his brother Abu Al-Fadl Al-Abbas (peace be upon them) as a witness based on the history of this city, which expresses the history of Islam. The study area includes many tourist and historical potentials, as there are in it and throughout the area of the governorate many historical evidence that dates back thousands of years, as well as the shrines of many companions and saints. It constituted an attraction factor for residents from outside the governorate, and among the historical evidence in the governorate (Oattara of Imam Ali (peace be upon him), Al-Ukhaydir fort, Shamoun Palace in Ain Al-Tamr district, Al-Tar Caves. etc.), despite that the governorate lacks the requirements of tourism development in line with the numbers of millions From the visitors who come to the governorate, as this requires the provision of hotels, infrastructure and services for these visitors, as many of them are from outside Iraq, which requires their stay for several days in the governorate, so the industry contributed and through the provision of raw materials for the construction of hotels, transportation requirements and rest areas for visitors, and many industries have been active In this province, there is a service for visitors, including industries (gilding and antiques industry), and tourism to the province constitutes an economic resource that will contribute to increasing industrial investment projects. Because of the financial abundance available in the private sector.

We conclude from the foregoing that Karbala governorate enjoys geographical capabilities and advantages that helped provide a successful investment environment, as the climate and geographical location of the governorate helped in that, as it mediates the governorates of Iraq, in addition to its geological structure and the abundance of agricultural and cooperative capabilities.

(Al-Sammak & Azhar, 2011)

6. Conclusions

- **1-** Karbala Governorate possesses great economic potential represented by natural and human resources, which constituted an encouraging factor to attract local and foreign investors.
- **2-** Karbala governorate has good human potential, as there are large numbers of manpower in the governorate, in addition to expatriate workers, to cover the need for industrial investments, although the number of these investments does not meet the ambition due to the Karbala governorate's important geographical location, multiple economic potentials, and its status. The great religious of the province.
- **3-** Most of the industrial investments depended on imported raw materials, with the exception of the non-metallic industries (construction) and some of the dairy industries, as these industries may be subject to stopping in the event of economic or political turmoil.

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