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Statistical Analysis of Political and Economic Dimension of Suez Canal Axis Development Project

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Abstract: In this paper, we present a descriptive analytical method to identify the importance of Foreign Direct Investment (FDI) as well as its political and economic determinants, it also addresses the use of quantitative analysis to define the expected impact of foreign direct investment in Suez Canal development project on the overall development in Egypt. It recommends that developing human resources to provide skilled and trained workers, creating a strategy to maximize value-added activities and achieving maximum productivity to increase competitiveness. Furthermore, the objective is to develop an attractive investment environment an integrated strategy matching economies of scale in all areas of activity and to give concern to the stability of financial transactions; consequently political and social stability would allow goods to pass from the port to the logistics center.

Keywords: Suez Canal Axis – Development Project – Foreign Direct Investment.

1 Introduction

The Suez Canal Axis Development Project (SCADP) helps in marketing local products globally in light of the decline in domestic investment rates, and low savings are the direct foreign investment in the axis projects and ones of the most important alternatives available to implement this project Hence, the study focuses on assessing the role of foreign direct investment in the Suez Canal axis, as a catalyst for developing policies in Egypt. The problem of study is the improvement in the performance of foreign direct investment, especially in the field of logistics industries. It should be reflected on the increase of economic growth rates thereby a comprehensive development.

Focusing on a major project such as (SCADP) we find that performance is fraught with weakness and decline in its rates according to the economic conditions, and the lack of a good economic climate for the growth of these investments which in turn reflects on development policies inside Egypt, and then the development process as a whole [1]. The research aims to define the evolution of foreign direct investment flows, and its impact on development policies in Egypt through its funding for the development of Suez Canal axis which is expected - after completing its planned stages and placing it on the map of logistics areas in the Middle East and the Mediterranean - to lead Egypt politically as well as in the field of port services, and activate the development movement of Canal Cities as well as Sinai in particular and the Egyptian economy as a whole [2].

Hypotheses are define as:

- There is statistically significant relationship between the foreign direct investment in the SCADP and the increase in the rates of comprehensive development in Egypt.

- There is a statistically significant relationship between the weak laws and legislation (policies), as well as the failure of projects.

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2 Methodology

The descriptive analytical approach for data collection and analysis is an appropriate approach to this research where the researchers have identified the community and the sample of the research. They also selected the type and data sources, collection method, response rate, and the use of statistical analysis for data and hypothesis tests. Data were obtained from published studies and data addressing the East Portsaid Port interviews with some participants and the questionnaire form that was designed for this purpose.

The authors adopted the random sample due to the homogeneity of the community units. They distributed 100 questionnaires to the society and 90 questionnaires were retrieved after excluding the invalid forms of analysis.

The questionnaire was presented and distributed at three administrative levels, namely the top level, middle and executive management, and to know the impact of many variables on the East Portsaid project, which led to its stumbling and stopping the implementation of the rest of its stages.

After the completion of data collection, computer aided by the adoption of SPSS 17 the data are added, scheduled, and conduct appropriate statistical analysis. For data analysis, and to test the validity of the study hypotheses, it requires the application of descriptive statistics and analytical statistics as follows:

The researchers adopted the descriptive approach method to analyze the collected data, as well as analyze the responses of participants, through the following statistical methods: The arithmetic mean and the standard deviation is a measure of the dispersion degree in the participant's answers to the questionnaire.

Coefficient of variation, the standard deviation is divided by the arithmetic mean multiplied by 100 to measure the degree of variation of each statement separately and the degree of difference between the terms.

The researchers also relied on statistical analysis methods to identify the results of the validity of hypotheses as follows:

• Chai Squair test, a statistical method is used to test the differences between different response rates

• Simple linear regression analysis and significant tests is a method used to identify the relationship, as well as the impact of one variable (dependent variable) on a number of variables (the independent variable).

• Correlation Coefficient, a method is used to measure the correlation between the variables of the study the responses of the participants.

First: the development project in Suez Canal axis

Suez Canal is one of the most important shipping lanes in the world. It is located on the most important international trade routes between Asia and Europe, where it has played a strategic role in the history of international trade. Approximately 17,000 ships, representing about 8% of the world's trade and 24% of the container trade pass annually through the Suez Canal [3]. But there are still unexploited economic potentials that can be used to add value to Suez Canal, and it is not enough to achieve transit fees of $ 5.3 billion during 2013-2014, this is a very small figure compared to what it was achieved in Singapore by $ 35 billion from logistics services to maritime transport [4].

In this context, the Egyptian government announced, in early August 2014, the launch of Suez Canal development project and the creation of a new Canal parallel to the original. The region will not only be limited to the function of the commercial crossing, so that it will serve as an industrial and logistic center. The Suez Canal Economic Zone aims to create many job opportunities to raise the economic growth rate and living standards of the population, it provides a model for development and a catalyst for economic growth, it is taken as a model to be followed in the rest of the country [5].

This is the first integrated step, and is a systematic approach. It seeks to seize the economic potential for this unique place, and with looking into the continued growth in world trade and increasing the need for market convergence and rapid response of the supply system, it is natural that Egypt looks forward to making the most of this original resource.

Therefore, the Egyptian government intends to build on these opportunities provided by the history of Suez Canal to transform it into a global economic axis and thus contribute to long-term development.

The Components of the Suez Canal Development Project:

The Suez Canal development project includes two integrated projects [6]:

- The new Suez Canal project
- The Suez Canal Axis Development Project (SCADP)

1- The new Suez Canal project

A- Project Description:

The new Suez Canal project aims to partially duplicate the Canal's navigational waterway, it creates a new parallel Canal (from 60 km to 95 km) it is a 35 km long, as well as the expansion and deepening of the lakes of "Murra" and "Pallah" 37 km long, it also makes the total length of the project 72 km (Started From 50 km and ended to 122 km). The traffics that will benefit more from the new Suez Canal are mainly those containerized both the higher value of goods and for the organizational details of the associated services, and these services have requirements such as reliability and punctuality. In parallel, the advantages for shipping companies reside in lower operating costs for transport and in saving of time. The reduction in waiting time will allow the reduction of all those costs that are non-proportional to the distance traveled but only to the travel time [7] Thus reducing the transit time to 11 hours instead of 18 hours, while reducing the waiting time from 8 hours to 3 hours for the North convoy [8].

It allows for passage of ships with depth by 66 feet in all parts of the Canal, which doubles the capacity of the Canal to more than 97 ships per day in 2023 compared with the average current traffic volume of 49 ships per day, This represents an increase in demand for the use of the Canal as a major global shipping waterway, and raise their rating which contributes to the gradual growth of the Canal revenues, with the actual ships traffic growth of the Canal which could reach $ 13.2 billion when the actual number of ships' movement will reach of 259% in 2030 [9].

B- Motives and Justifications of the Project:

The main motives and justifications for the new Suez Canal project are [10]:

- Increasing the number of ships as the transit system in the current situation of the Suez Canal depends on the system of convoys; it uses double parts which currently reach about 80.5 km to implement this system.

- Understand the expected increase in the numbers of ships as a result of the continuous increase in the volume of world trade, where the volume of world trade transported by sea annually is increased, and it is expected to continue in that direction in the future.

- Overcoming the problem of limited waiting areas in the Big Lakes and the Small Lakes for large ships coming from the north where the waiting areas in these lakes cannot accommodate more than 8 ships with a depth greater than 45 feet, especially in light of the continuous increase in ships crossing the Canal.

The following figure shows the development of the number of ships with 45- feet depth or more crossing the Suez Canal to the south [11]:

Figure 1 indicates the continuous increase in the number of ships with 45- feet depth or more heading south, rising from 103 ships in 2000 to 1709 in 2014, and this situation is expected to continue to increase as the volume of the international fleet of ships increases. This requires the continuation of the ability of the Suez Canal to discharge this increase by implementing the new Suez Canal project.

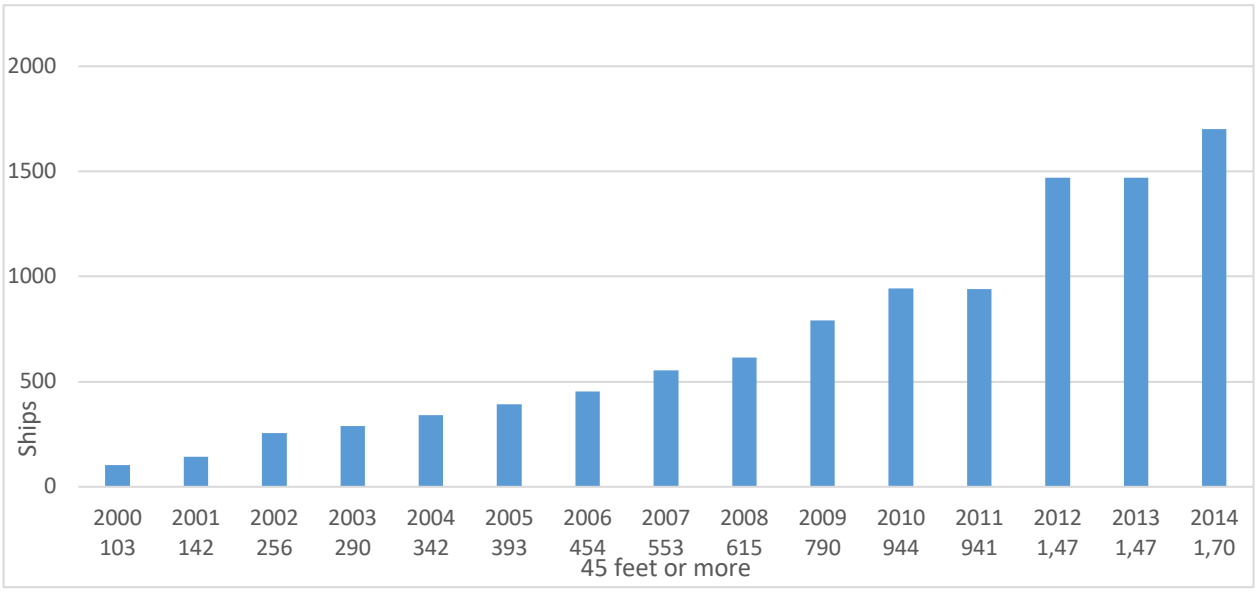

Fig.1: .The relationship shows the number of ships and the depth of Canal (2000-2014)

C- The estimated cost of the project and business size:

The estimated total cost of the new Suez Canal project is estimated at 60 billion Egyptian pounds, by 4 billion pounds of the total cost of the project for dry drilling for a distance of 35 kilometers, and about 15 billion pounds for the work of the dredging and digging with 72-km length, with a load of work by 300 million cubic meters of sand [12]. The work of the cysts, sedimentation basins, ferry facilities, and navigational aids estimate is about 10 billion pounds. To link the western side to the east side of the channel, so it was planned to build 6 tunnels at an estimated cost of 28.9 billion pounds [13].

Table 1: This table shows the estimated cost of the new Suez Canal project.

Phases	Activity	Cost		
		Billion L.E	Billion $	%
1	Dry Drilling (35 Km2)	4.0	0.550	6.7%
2	Dredging and Deeping (72 km2)	15.0	2.10	25%
3	Tankers, Ferry Facilities, Navigational Aids	10.0	1.30	16.7%
4	Military Forces Utilities	2.10	0.289	3.5%
Total	**The Estimated Cost**	**31.1**	**4.239**	**51.8%**
5	Establish 6 tunnels	28.9	4.0	48.2
Total		**60.0**	**8.20**	**100%**

Source: Suez Canal Authority Annual Report 2014

D- Expected revenues of the new Suez Canal project on international trade

- *The importance of the Suez Canal to international maritime trade* [14]
  The Suez Canal is the shortest route connecting east and west, due to its unique geographic location, this site adds special importance to the world and to Egypt, as well as being an important source of foreign exchange sources.
  The importance of the Canal is growing as the development and growth of world trade by sea, due to the fact that shipping is the cheapest means of transport so it is transferred over 80% of the global trade volume across the sea.
  The importance of Suez Canal for international maritime trade is due to the great savings in the distance to international trade, which is translated into saving of the costs of operation of merchant ships.
  For example, the Canal provides more than 6009 nautical miles of trade from Ras Tanurain [15] the Arabian Gulf and Lavira [16] compared to the Cape of Good Hope in South Africa, while savings from Tokyo to Rotterdam [17] in northwestern Europe are over 3,315 nautical miles.

-The impact of the new Suez Canal project on international maritime trade
The new Suez Canal project has a number of advantages for international maritime transport as it will lead to [18]:

a. Increase the capacity of the Canal to be 97 ships in 2023 instead of 49 ships in 2014, which will help to increase international trade and maritime transport through the Canal.
b. Allow ships to cross up to 66 feet in both directions Instead of only 8 ships to the North convoy and all ships to the South convoy.
c. Achieving navigational security for the existence of an alternative Canal to ensure that the navigation does not stop when an accident occurs.

The indirect effects of the project on international trade are as follows [19]:

a. Decrease the traffic time which its role means the speed of arrival of goods for unloading vessels, in addition to increasing the number of convoys for different ships.
b. Increase the capacity of the Canal to accommodate a waterway of ships in light of the expected growth in the volume of world trade in the future linked to the Suez Canal Development Project.
c. Raising confidence in the Canal as the best global navigation waterway.

2- The Suez Canal Axis Development Project (SCADP)

The government aims to turn the Suez Canal into a global economic center, it is expected to play a deeper role in economic development, and income generation if all the potential opportunities are exploited through which the project could offer to Egypt in an efficient manner.

It is expected that the SCADP will generate revenues up to $ 100 billion annually, attracting investments, infrastructure and construction for development until 2022 and providing a million jobs [20].

A- East Portsaid Region [21].

East Portsaid is a major location on the Asian side of the Suez Canal, it is far away by 20 km from Port Said city and about the Mediterranean coast by approximately 10 kilometers. The site covers 7552 hectares of land which needs development and infrastructure. The northwest part of the site is specialized to expand East Portsaid Port which would become a major international shipping port. It is expected to be a catalyst for industrial development in the region as the vital link of Portsaid with the other ports and the rest of Egypt making it a world-class industrial area and thus maximizing opportunities for economic development and under this project, it become the main center for re-freight and develop a range of logistics services for multimodal transport activities which is expected to save about 105,000 jobs [22] .

Approximately 4,000 hectares will be allocated for light and medium industries, and business activities which are expected to provide about 80,000 jobs. Also, it will be a construction of new urban areas in the East Portsaid area and Bardawil Lake area, which will be able to accommodate about 250,000 people [23] .

Phases:

- The first phase (2015-2020) is the incubator phase, in which the main infrastructure is established and modernized. This stage plays a key role in attracting investments that create a balance that supports other phases of the project.
- The second phase (2020-2025) is the completion of all road networks set within the limits of development for the year 2030. By 2025, all infrastructure should be completed for further development in the central industrial area.
- The third phase (2025-2030) will witness the development of the parts of the industrial site, especially the development of the port front west of the site [24].

B- *Ain Sukhna Region* [25]

According to the Suez Canal development strategy, the Ain Sokhna region is expected to become a major industrial and logistic center on the Suez Canal's southern gateway.

The location of Ain Sukhna occupies an area of 210 km2, 62 km2 of which has been developed. In addition to south Ain Sokhna port with an industrial facilities and infrastructure, while the north of Ain Sokhna seems largely empty.

It is possible to take advantage of the location of the Ain Sokhna area and its ease of communication in Cairo, as well as the presence of a modern port with the availability of land:

- The possibility of establishing an industrial zone serving both domestic and international markets.
- The possibility of benefiting from the wind in the production of solar energy.
- Ain Sukhna can become the main industrial center at the international level, enabling it to absorb the heavy, medium and light industries in addition to large population areas.
- Providing job opportunities for the residents of the city of Suez, which will be provided in Ain Sukhna, and the residents of Ain Sukhna are expected to work in the city of Suez in the future.

Phases [26]

The First Phase (2015-2020): In this phases, it will be implemented all the necessary infrastructure, managerial cost with providing services to support and develop investments. At this early phase, the strengthening of the central sector in the northern region and its functioning will be an integral entity, reaching the level of self-sufficiency. At the same time, it will be focused on the development of the Central Industrial Management Complex and the strengthening of existing industries in the southern region.

The Second and Third Phases (2020-2030): Both are characterized by enhanced the first implementation, it is the ideal situation to deal with land use requirements as in the program, regardless of whether the demand rate is increasing or at its ideal rate.

C- New Ismailia and El Qantara [27]

El Qantara is a new residential community, it is characterized by life in a unique agricultural environment, next to Suez Canal.

It achieves the geographical demand for the light industry activities, and then becomes a catalyst for job creation. The site covers an area of 1360 hectares, including many development projects with limited industrial zones. It is located, according to the strategy, along the Ismaili and Portsaid axes. There are four main uses of El Qantara area, which are different between residential uses, open areas, roads and light industries. It is expected that within the framework of the SCADP, the Ismailia and El Qantara regions will be developed in terms of:

- Establishment of specialized groups of research & development activities in both ICT and renewable energies in the East Valley Technology of Ismailia.
- Some activities and light industries related to agricultural products and industries will be established in El Qantara
- A logistics center and a dry dock in Ismailia will also be equipped.
- The development of urban areas and housing in El Qantara and Ismailia will be able to accommodate more than 35000 residents.

Division of stages [28]

The First Phase (2015-2020): It is known as the Incubator Phase. This includes the construction of the main infrastructure and its modernization, which will pave the way for the start of development in the industrial park center with the aim of creating more jobs in El Qantara.

Therefore, providing an attractive investment environment is essential for the continuous success of development. The development of showrooms, industrial zones, nearby residential services and affordable residential areas creates an important and powerful unit within the location.

The Second Phase (2020-2025): At this stage, more middle-income residential areas as well as community facilities will be developed. This phase will see the completion of all road networks in 2030. Therefore, by 2025, all infrastructure projects should be completed.

The Third Phase (2025-2030): At this phase, the high-income housing units will be developed and serviced by the central area and support services.

If we discuss about the New Ismaili City, we will find that it is located in the 42 km, and the new city is about 500 meters from the New Canal, 1.5 km from the Ferry No. 6 in the direction of Portsaid, and 9.5 km in the direction of Suez, This new city is the best extension of the present Ismaili city. This phase will be divided into two stages. The first stage of the housing project will include the construction of 35 thousand residential apartments and the second stage will be built 57 thousand housing units in addition to various government headquarters and different and necessary for the city. The new city of Ismailia is located on an area of 2,157 acres with a length of 11.3 km between the tracks of the Suez Canal. The city has more than 57 thousand housing units at the completion of all stages which will be built on an approximate area of up to 10 million square meters, and the new city of Ismailia includes seven residential neighborhoods which are build on seven stages and each residential district consists of 700 residential buildings with different residential areas.

D- Seaports

The SCADP includes 6 seaports, these seaports are East Portsaid Port, and the port of Ain Sukhna, In addition to the Port of El Arish, West Portsaid Port, Adabya Port, and Port El Tur. The ports of Ein Sukhna and East Port Said are the latest, where their evolution began in the 1990s and early 21st century according to response from the Government to changing trends in international shipping, and rapid growth in containers field, which seeks to stimulate employment opportunities and create a global logistics economic zone, thus posing a new impetus for port development. In parallel, an appropriate and clear environment should be created with strong legal actors for the development of the port sector in the Suez Canal economic zone in particular and in Egypt in general.

- *East Port Said Port* [29]*:* -

In the plan to develop East Portsaid Port, three terminals will be established:

a) Containers Terminal

- Establishment a four containers berths with a total length of 4500 m. it will be able to accommodate new generations of container ships. By 2050, the port will be able to handle about 20 million containers compared to 3.3 million containers currently.
- Developing the containers berth size to become 1500m along and 17m in depth allowing the number of ships to be accommodated at one time.
- Increasing the size of the basin up to 800 m to allow ships to move in different directions, it also allows the treatment of hydrodynamic effects, and maneuver easily during anchoring.

b) General and Dry Bulk Cargo Terminal

The development plan of East Portsaid Port includes establishing a multi-purpose station, and dry cargo, it provides solutions for storage of large quantities of goods where 7 berths will be constructed to handle general cargo, and dry bulk cargos with a total length of about 1500 meters. There are grain silos and storage areas, this site also includes a number of value-added services such as the development and implementation of the new car import project, and packaging of dry cargos.

c) Liquid Bulk Terminal

Establishment of 4 berths for liquid goods with a total length of 80 m, and a total area of 24.8 million meters, it will be able to absorb 5 million tons from a variety of different liquid bulk goods,

This could be further enhanced by additional location for storage in the general logistics area. It also provides tanks for liquefied natural gas terminals to meet the latest ship needs like a clean fuel to reduce exhaust emissions from ships.

- *Ain Sokhna Port*

The port of Sokhna was first opened in 2001 by a group of private investors serving the Special Economic Zone located in its vicinity.

The port has grown steadily since then, where large amounts of investment were attracted in a variety of projects including; Liquid-bulk terminal, for sugar refining, storage facilities and warehouses [30]. The port serves oil and gas fields in the Ain Sukhna area, refining projects, liquefaction of gas, a petrochemical project, ceramic factory, In addition to the seaport of Sokhna which is 22.3 square kilometers, and expected to accommodate two million containers Twenty foot Equivalent Unit (TUE).

- *Logistics services*

In parallel with expanded port activities and proposed industrial activities, it will be necessary to raise the level of logistics capacity and efficiency in the region, and to undertake the first general plans.

Table 2 This table shows the proposed logistics and aspects include the following components

Internal Logistics Services	**Cargo Logistics Services**	**Logistics Ships Services**
-From / To distribution center	**Right Trade name**	**High efficient usage of ships**
-Cargo Customs	**Right Size**	**Logistics services**
-Storages	**Right Time**	**Ideal port Network**
-Multimodal distribution	**International Multimodal Solution**	**Express exchange of goods**
-Value Added	**Goods Transport**	**Security accurate treatment**
	Arrival Time to the Market	**Economic Field**
Communication, Information and Connects = International logistics services from door to door		

It is proposed to develop a logistics service center at East Portsaid Port, so that it includes a multimedia station, with a storage and transport capacity of more than 2 million TEUs; with regard to the Ain Sokhna area, it is expected that more than one million containers pass annually through the multimedia terminal and logistics area by 2025 [31]

The logistics areas scheme has evolved to ensure efficient container movement; enabling automated systems in future years; establishing high-quality links to external routes; the providing of integrated customs warehouses, huge inspection areas and efficient storage of large quantities of empty containers. Major storage areas have been allocated for container storage, they are located directly next to the multimedia transport areas. These areas serve mainly as a dry dock cargo for container storage and transfer between port terminals and other logistics and industrial areas. And in order to obtain high capacity, areas are arranged in the form of monolithic unit with high density of 32 x 20 in length (adjacent to multimedia areas), this is presented nineteen containers, like ports [32].

Logistics areas need high-capacity roads and rail links to reach remote areas, in terms of providing such links which are available in period no later than 2020. There are plans to link the city of Tenth of Ramadan and dry dock by double rail on the line extending from Cairo eastwards across the road to Suez, and to Belbeis on the line from Cairo to Ismailia. In the first phase, the utilities of the 10th of Ramadan are supposed to develop a maximum capacity of 500,000 containers in order to implement timetables and schedules of delivery of equipment, and each phase must begin two years before reaching to its additional capacity which reaches to 80% [33].

- Dry Dock in Ismailia [34]

The port will be equipped with adequate infrastructure and resources, with specialized services for handling, transportation and storage especially for agricultural and fruit products.

The port will also absorb the surplus in East Portsaid Port to avoid the overload on it.

Also, there will be the possibility of establishing many value added services, open storage, stacking areas, etc.

The dry dock is to be built in Ismailia serves four main types of goods:

• Refrigerated goods.

• Dry cargo less than container load "LCL"

• Full containers load (FCL);

• Empty containers.

Table 3: Forecast of dry dock in Ismailia.

	2015	2020	2025	2030	2040	2050
FCL: Reefer on Million TEU		0.03	0.11	0.16	0.32	0.63
FCL: Non-reefer on Million TEU		0.01	0.03	0.04	0.08	0.16
LCL: in Million TEU		----	0.01	0.02	0.04	0.09
Empty Containers Returned to Million TEU		0.05	0.08	0.14	0.29	0.58

E- East Port Said Logistics Area[35]

- Maritime Services

Due to the strategic location along the Suez Canal, which is used by a large segment of maritime transport lines, the area around the Canal can become a major factor for navigational services. These include:

- Refueling ships:

Provide a sufficient fuel to supply about 7% of passing ships. The warehouse market represents a complex and dynamic network of traders, suppliers, multinational companies and national oil companies along with many other users.

The major service procurement areas include the relative cost of alternative site supply (leaving time and waiting periods), fuel quality and availability of different types of it and quality of service.

-Ship repair and shipbuilding:

Ship repair and shipbuilding facilities: it still not coordinated in the Suez Canal area, and therefore it does not provide specialized services. The officials should encourage the private sector to upgrade the existing space, and making changes at the organizational level. The other option is the creation of new buildings, the removal of the shipbuilding facilities is built on port gates so as not to interfere with the movement of goods in ports and industrial zones. It is necessary for a detailed assessment of equipment and facilities at existing sites to build and repair ships to determine where improvements are needed. Although there is a number of arsenals and repair companies and shipbuilding in Port Said, Suez and Ismailia, but there is a need to develop them in partnership with international companies in this field, and the development and training of workers by focusing on ship repair and maintenance, as well as the construction of small naval units.

-Industrial activities [36]

Suggested activities and industries are listed in the general framework SCADP

- Automotive assembly industry

- Electronics Industry

- Oil refining industry

- Petrochemical industry

- Light metal industries

- Distribution and redistribution logistics centers

- Shipping & Ship Services

- Shipbuilding, ship repair and maintenance

- Manufacture and maintenance of containers

- Wood industry and furniture industry

- Textile industry

- Glass Industries

Second: the impact of investment in the SCADP on the comprehensive development

The importance of the Suez Canal economic axis is that includes some of the proposed policies that can be implemented within the scope of the axis, and this will serve most economic sectors such as (Maritime services, world trade, industry and trade, tourism, agriculture, housing, navigation and transit fees). The project will also support the International Center for the Suez Canal Region as a new center for regional and international economic development, and enhancing the Center's role in attracting investments to develop the region to become a locomotive for Egyptian economic growth.

The Suez Canal axis is also a global center, an economic free zones for manufacturing and distribution of transit trade and logistics services which lead to ships and trade crossing the Suez Canal in partnership with international companies, and to make the ports of Portsaid and Suez are a central ports and cargo terminal, So it can attract more foreign direct investment, new infrastructure investments, and manufacturing and services supporting the growth of the Egyptian economy for progress towards equality with other emerging markets such as India, which aims to achieve growth of 9 - 10% per year until 2020 [37].

1 - Expected revenues of the new Suez Canal project to the Egyptian economy:

During the years (2012-2013), the Egyptian economy witnessed a decline in economic growth rates, accompanied by a rise in the unemployment rate and a decline in average per capita output, which was a catalyst for the implementation of the Suez Canal project and the SCADP as the two giant projects expected have a significant impact on the Egyptian economy in the coming period [38]. The following table shows the evolution of the Egyptian economy and the contribution of the Suez Canal to the output:

Table 4: Evolution of the performance of the Egyptian economy during the period (2006 to 2014).

Years	GDP in Fixed Prices		Unemployment Rate %	Suez Canal Revenues	
	Billion L.E	Growth Rate %		Billion L.E	Growth Rate %
2006	454.3	6.84	10.92	21.8	--
2007	486.5	7.09	9.21	25.9	18.8
2008	521.3.	7.16	8.86	29.2	12.7
2009	545.13	4.67	9.37	23.8	-18.5
2010	573.8	5.15	9.21	26.8	12.6
2011	548	1.78	10.38	31	15.7
2012	596.9	2.22	12.37	31.1	0.3
2013	609.4	2.10	13.01	35	12.5
2014	628.8	2.2	13.42	38.8	10.3

Source:http://www.imf.org/external/datamapper/index.php,19/2/2014.

Despite the decline in the GDP growth rate, the contribution of the Suez Canal to the GDP continued to increase as a result of the continuous increase in the achievement of continuous growth rates in revenues, the revenues reaching 35 billion L.E in 2013, representing a growth rate of 12.5%, and reached in 2014 to about 38.6 billion L.E with a growth rate of 10.3%, compared to 2013. Also, the Canal's contribution to GDP increased from 4.7% in 2010 to reach 6.2% in 2014.

The project has a number of advantages and benefits that are expected to be reflected on the Egyptian economy positively during the coming period which are as follows [39].

- Increase Suez Canal revenues from $ 5.1 billion in 2013 to $ 13.2 billion by 2023, which is an increase of 259%.

- The positive impact on the development project in the Suez Canal area and it is a step on the road to the success of the project and push the Egyptian national economy forward, which will turn Egypt into a global trade and logistics center.

- To create an urban community in the Canal area and turn it into a tourist attraction and trade and achieve an increase in employment opportunities.

- Link the eastern side to the western one of the Canal through the implementation of the number of six tunnels, which facilitates the movement to and from Sinai.

- Increase employment opportunities.

2- The expected impacts of implementing the stages of the SCADP

Suez Canal development project aims at transforming the area into a global maritime, industrial and logistic center. The Suez Canal passes about 8% of the world's cargo and 24% of the containers. The project includes 3 main stages:

A)The first phase of the project:
It aimed at developing ports of Portsaid and Suez, it ended is 2017, targeting [40]:

- Convert East Portsaid Port, which is located on an area of 75 km2, to a global hub to become the largest Mediterranean port, and one of the top 20 container ports worldwide, it increased transit traffic to serve the Eastern Mediterranean region, and the first logistics area in Portsaid is completed by 2017.
- This phase also includes development and modernization of Ain Sokhna Port to serve Egypt Foreign Trade, as well as the Red Sea region which will make the ports which are located on the Suez Canal a warehouse for the world trade.
- There are two global storage areas that will be established, the first East Portsaid, to serve the giant vessels to ease their cargo between Asia, Europe and North America, the second in Ain Sokhna to serve vessels between Asia, Africa and Latin America, where the Suez axis will be developed which includes Ain Sokhna Port, Industrial Zone and Ras Al Adabiya. Ain Sokhna Port's area is a 23-square kilometers, it includes the construction of 6 basins of dimensions 750 to 350 meters and platforms with lengths of 2000 meters with fixed wall system on the ground to accommodate 1.5 million containers annually, 3 million tons of goods, 6 million tons of dry bulk, and increase the Ras Al Adabiya port area by 180%, and the length of berths increased by 280%.

The first phase ended in 2017, but the Northwest Gulf of Suez, the middle area was divided into a 17 km, a northern and southern region, both industrial and investment zones, and the economic zone of a special nature.

B) The second phase of the project:

It aims to establish a free industrial zone along with the Logistics Area, ending this phase in 2022 and is expected to generate revenues of $ 100 billion [41].

C) The third stage of the project:
Including the central sector in Ismailia and Qantara, This region will provide 216,000 direct jobs in tourism, agriculture, industry and fish farms, technology valley project which includes four stages; the first phase covers an area of 3021 acres, the second 4082 acres, the third area of 4837 acres, and the fourth 4160 acres.

- The target here is to establish a global service center, to take advantage of the time difference between East and West. Ismailism was proposed to be the headquarters of this center.

A major city will be established which includes various residential areas, hotels and airport, as well as large conference rooms and exhibitions to promote conference tourism.

This phase is planned to end in 2030 and revenues will double to about $ 200 billion [42].

3- Objectives and Expected Results of the Suez Canal Development Project [43]:

- To develop and advance the Egyptian national economy by exploiting the distinct of the site.
- Egypt has become an important global economic and industrial economic and commercial center in the world trade through the creation of new industrial and logistic entities in the project area, which depends on value-added activities and complementary industries and re-export, through logistic distribution areas that are equipped for this purpose.
- Encouraging national, Arab, and foreign capitals, and bringing the largest amount of investments to participate in the implementation of the public plan of the project and to achieve its objectives in the light of Egyptian national security.
- To increase the Egyptian national income, especially foreign currency, as a result of the expected increase in the Suez Canal income from increasing the rates of passage of ships in the waterway, as well as the expected increase in maritime transport to and from the Arab Republic of Egypt, and exploitation of the site as a central location for electronic communications worldwide, especially in the Mediterranean Sea and the Red Sea.
- To provide the opportunity for national companies and institutions to participate in the implementation of the project outline and infrastructure according to international standards, and to achieve the recovery of these companies, it is an addition to its monetary possibilities and its acquired experience, and to improve their monetary conditions, and the conditions of their employees.

4- Obstacles to the implementation of the SCADP:

Although the idea of the Suez Canal project is an idea of decades and the studies and plans that have discussed in detail, the project until now was not born strong and influential. This is illustrated by a brief review of the project's operational position as follows [44]:

- *Port of Sokhna* in the southern entrance of the Suez Canal in Suez Governorate on an area of 23 million square meters at a cost of about one billion Egyptian Pounds, attached to the economic zone of the northwest of the Gulf of Suez on an area of 50 million square meters, while the first port project was operational in 2003, and the establishment by the State in 2004 of the general plan for the port of Sokhna, which was prepared by Design Hourly Volume (DHV), and called it "Sokhna" 2020, parallel to the general plan of the port. There is an integrated study that was prepared of the Northwest Gulf of Suez Economic Zone by WS Atkins in combination with the general outline of the port. The study is pointed to the modest rates of development of the port of Sokhna which keep pace with the emergence of some industrial projects scattered in the economic zone to the northwest of the Gulf of Suez.
- East Portsaid port in the northern entrance at Portsaid Governorate on an area of 34 million square meters at a cost of about 2.6 billion dollars, attach by an industrial zone on an area of 87 million square meters, the first container terminal was opened in 2004, the general plan was approved for East Portsaid Port and the Industrial Zone where they were prepared by DHV, accompanied by an integrated economic and investment study of maritime activities at the port, as well as various industries and value-added activities in the industrial area, the study is pointed to the modest development rates of East Portsaid port parallel to the failure of the efforts of the Industrial Development Authority for the promotion and marketing of the industrial zone attached to the port which did not build any industrial project in the absence of all facilities and infrastructure.

Through the brief presentation of the executive position, it is possible to devise some of the obstacles that hindered the implementation and launching of the development of the axis as it was in its originally planned form, including [45]:

1. Mismanagement and bureaucratic obstacles that did not keep pace with international thought and contact with the world in this field.

2. The lack of coherence and integration of projects, whether vertical or horizontal integration where individual projects have emerged, without a link with each other.

3. Not to actively promote the project to foreign investors or Egyptians.

4. The investment climate was not conducive to attracting capital to invest in the project in terms of tax, customs and financing incentives.

5. Political and security instability in 2011 as a factor of expulsion of capital.

6. Weak laws and legislations that encourage the development of this important area

7. Lack of transparency and effective incentives.

8. Non-development of manufacturing and technology industries.

9. The area is still lacks in infrastructure and the elements of an urban and social gathering.

10. Lack of regulations: such as overlap of competencies between different authorities in ports, and non-separation of ownership and finally the government controls and the dominance on the pricing of services, and in providing logistics services.

Third: Descriptive Statistical Analysis of the Results of the Field Study

The results of the descriptive analysis of the responses of the participants on the variables of the study as follows:

First hypothesis: There is a statistically significant relationship between the foreign direct investment in the project of development of the Suez Canal axis and the increase of the comprehensive development rates in Egypt and increasing the development rates of Canal and Sinai cities.

Table 5: This table shows the results of the analysis of the responses of participants to the questions of the axis of the establishment of the project and its contribution to increase growth and development rates

	Statement / Question	Athematic Mean	Standard Deviation	Coefficient of variation %
1	The establishment of the project increases the rates of economic development in Egypt	**4.77**	**0.43**	**8.56**
2	It helps in the development of Canal and Sinai cities	**4.70**	**0.64**	**13.41**
3	It increases employment and eliminates unemployment	**4.63**	**0.50**	**10.63**
4	The project will realize the aspirations of the Egyptians and will be a competitor to other logistics centers when completed	**4.52**	**0.61**	**13.50**
5	Egypt is in need project	**4.45**	**0.66**	**14.85**
6	The development of Egyptian ports such as Portsaid, Damietta, Alexandria and Red Sea	**1.93**	**1.19**	**61.27**

It is noted from the previous table (5), that there are six of the arithmetic mean to all the statements exceeds the theoretical arithmetic mean by (3.00).This indicates a near-agreement between the participants of the study. There is an agreement on question No.1, with an arithmetic mean (4.77), by standard deviation (0.43) and the lowest coefficient of variation, which ranked first of the responses of the participants of the study, this means that the establishment of the project increases the development rates of the Egyptian economy. Followed by question No.2 with an arithmetic mean (4.70), by standard deviation (0.64) which ranked second in the responses of the participants of the study, it showed that the development will extend to the cities of the Canal and Sinai. QuestionNo.3 came with a mean of (4.63) and a standard deviation (0.50), it means that the study sample agrees that the project increases the chances of employment and helps in the elimination of unemployment, which is one of the most important factors of development. Question No. 4 and 5, also emphasized Egypt's need for this project and it would achieve the ambitions of the Egyptians, where the arithmetic mean was greater than the theoretical mean, and the standard deviation is less than one. Question No.6 showed a lower mean of the theoretical mean, and standard deviation greater than one, it means that the sample supports and agrees to establish the project despite the presence of other Egyptian ports.

Second hypothesis: There is a relationship of statistical significance between the weak environment of laws and legislation, which encourage foreign direct investment in development projects, and impediment of these projects

In order to clarify this hypothesis, questions were asked in the following on the members of the research sample. Their answers are as shown in Table (6):

Table 6: This table shows a relationship of statistical significance between the weak environment of laws and legislation

	Statement / Question	Athematic Mean	Standard Deviation	Coefficient of variation %
1	The need for new legal formulas to encourage foreign direct investment	**4.52**	**0.74**	**16.3717**
2	The environment of legislations and laws with the development in the industry of the maritime transport and logistics	**4.42**	**0.70**	**15.8371**
3	Reviewing the legal versions of BOT systems helps benefit from the returns of these projects	**4.33**	**0.53**	**12.2402**
4	Reforming defects of the current legislations and laws help to attract investment	**4.30**	**0.52**	**12.0930**
5	The environment of legislation and laws with the development of sea ports	**4.27**	**0.83**	**19.4379**

It is noted from the previous table (6) that the participants have totally agreed on the questions of this axis where the values of the arithmetic mean exceeded in all the questions. The theoretical arithmetic mean is (3.00) with high values, and with a standard deviation less than one.

For all questions which confirm and strengthen their agreement and non-dispersion, the coefficient of variation is less than 20% of the five questions, this confirms their agreement on each question, and the variation between the agreed questions are small ranged between 12% and 19%, it also indicates the awareness of the participants and the importance of this special axis in the role of legislation and laws in attracting investments.

Study hypothesis test results:

The authors are tested the hypotheses of the study by using a number of tests to determine the relationship between the stumbling and stopping of East Portsaid project as a dependent variable and a number of independent variables Where it is a statistically significant relationship if the value of the significance level is less than the level of significance (0.05 = α) , and vice versa, this means that the relationship effect is not statistically significant.

The first hypothesis: Is that there a statistically significant relationship between the foreign direct investment in the SCADP and the increase of economic development rates in Egypt and increasing the development rates of the Canal and Sinai cities.

Table 7: This table shows results of hypothesis tests for the axis of the project.

	Statement / Question	Relative weight	The significance level for the Chai2 test	The decision at a significant level 0.05
1	The establishment of the project increases the rates of economic development in Egypt	**95.8**	**0**	**Significant**
2	It helps in the development of Canal and Sinai cities	**94.0**	**0**	**Significant**
3	It increases employment and eliminate unemployment	**92.2**	**0**	**Significant**
4	The project will realize the aspirations of the Egyptians and will be a competitor to other logistics centers when completed	**89.0**	**0**	**Significant**
5	Egypt is need project	**38.2**	**0**	**Significant**
6	The development of Egyptian ports such as Portsaid, Damietta, Alexandria and Red Sea	**90.4**	**0**	**Significant**

From the previous table (7), we have found all the six elements of the first axis are exceeded

In order of relative importance by 60%, thus, the result of the Chai 2 test in relation to the questions of this axis is significant, excluding the fifth question by 38.2%

This means that the sample of the study approval rate ranges between 70.4% and 95.8% which forms statistically significant percentages.

This means accepting the assumption that there is a relationship of statistical significance that the establishment of this project increases the rates of growth and development of the economy in Egypt increases employment opportunities, proving Egypt's need for this port, and this will achieve the aspirations of the Egyptians.

-The second hypothesis is that there is a a statistically significant relationship between the weak environment of laws and legislations for development projects and their inability to attract foreign direct investment required to complete the project stages

Table 8: This table shows results of hypothesis tests for the weak environment of the laws and legislations governing the management of such projects

	Statement / Question	Relative weight	The significance level for the Chai test	The decision at a significant level 0.05
1	The need for a new legal formulas to encourage foreign direct investment	**85.5**	**0**	**Significant**

2	Not keeping pace with the environment of legislation and laws with the development in the industry of the maritime transport and logistics	**88.5**	**0**	**Significant**
3	Reviewing the legal versions of BOT systems helps to benefit from the returns of these projects	**.862**	**0**	**Significant**
4	Reforming the defects of the current legislations and laws helps to attract investment	**86.8**	**0**	**Significant**
5	The environment of legislations and laws with the development of sea ports	**90.6**	**0**	**Significant**

From the previous table (8), we have found that the answers of the sample to the questions of this axis

The approval rate was very high, which indicate a complete awareness among the sample by the importance of the environment laws and legislation in support of major projects, especially in the process of attracting investments and partnerships with investors to keep the rights of the nation in its national projects.

The lack of implementation of this important project, and stumbling stages confirms the weakness of this area to us, it also emphasizes that the concepts and principles of quality in the performance of legal and legislative are still need a lot to attract more investment.

The responses confirm the need to review the laws, legislations and BOT system formulations to fix defects and create new legal formulas.

Conclusions

Direct foreign investment is important, because it is a catalyst for growth, which bridges the gap between savings and investment, and it the rapid transfer of advanced technology from developed invested countries. There are internal and external determinants of foreign direct investment: The external factors associated with companies which meant to invest and the host country does not interfere. While the internal factors are represented in the laws and regulations governing the investment, and the extent of encouraging and attracting investment. Political and economic stability will attract more investment. Moreover some economic determinants such as the availability of cheap workers, privatization, and the degree of economic openness, which helps attract more investments. The direct foreign investment in Egypt has been characterized by fluctuation. The most important source of foreign investments to Egypt is the European Union, which is the first trading partner of Egypt. The average investment inflows from Egypt has reached about 70%. The United States of America with the average inflows reaching about 25% of total inflows.

In the light of the previous conclusion, some suggestions can be made to overcome the obstacles facing the SCADP: (i) development of human resources to provide skilled and trained workers through training centers with the use of foreign labor with high expertise to allow local workers working with expertise, skills and experience gained from the experiences of the global logistics areas, (ii) establishing global training centers with social and recreational services and a global standard of living to qualify the area for the establishment and construction of new communities, (iii) developing a strategy to maximize value-added activities and achieve maximum productivity to increase competitiveness by reducing the price of the product and providing service at a competitive cost globally while increasing the efficiency to the global competitive levels while using the latest technologies, (iv) providing an attractive investment environment to attract international companies to the region in terms of developing administrative, institutional and legislative performance, especially in resolving disputes, litigation speed and investment incentives, while reviewing investors' contracts are used to ensure adequate distribution of risks to attract more global terminal operators and investors, (v) developing an integrated strategy to deal with economies of scale in all areas of activity, and provide the necessary facilities while ensuring the efficiency of the infrastructure and quality with the global planning of the region serving the purposes of projects in the future, (vi) working on the stability of financial transactions as well as political and social stability with a focus on combating environmental pollution of various kinds and providing the necessary land for projects at competitive prices with caution of speculation in land prices. Finally developing marine ports and container terminals in support of programs and strategic planning studies in ports and different terminals in the framework of achieving balance between the possibilities and resources of the port environment and development requirements in the light of the global and regional variables surrounding, and coordinate with the Customs Authority to amend the customs laws to allow the Customs Center to consider a customs zone. Thus, goods to pass directly from the port to the logistics center.

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