Forging Direct Investment and Technology Transfer in Developing Countries: A Comparative Study of Libya and Egypt

Abobaker Salem*
UK: University of Gloucestershire

Abstract: The research presents a comparative study, Libya and Egypt are developing economies, and Libya and Egypt have adopted forging direct investment (FDI) and technology transfer (TT) as ways to enhance economic development and economic in the countries. The aim of this study is to investigate the impacting foreign direct investment (FDI) and technology transfer (TT) in developing countries. The investigation applies a questionnaire method for data collection (primary data) from company managers both countries. The matched samples comprise 149 companies in Libya and Egypt; key economic sectors could be covered in Libya and Egypt. This research also uses data collected from secondary sources such as government reports, documents and government websites. The outcome was strongly impacted by host government policy in the process of FDI and TT. A number of factors were identified as being important in the process of FDI and TT, these factors are divided into: manageable and unmanageable factors, manageable factors, such as policy, level of education, skill of labour. Unmanageable factors such as availability of natural resources, location and the climate of the host country.

Keywords: Forging Direct Investment and Technology Transfer.

1. Introduction

Foreign direct investment (FDI) is generally perceived as a growth-enhancing factor in host countries. It not only brings in capital, but also introduces advanced technology that can enhance the technological capability of firms in the host country (UNCTAD, 2008). Moreover, Technology transfer (TT) to developing countries has been one of the most debated subjects within the field of international economic relations in the past thirty years. In particular, the role of Multinational Enterprises (MNEs) in the process of developing, applying and disseminating technology across national borders to such countries has generated special interest (UNCTAD, 2008). At present, technology plays a crucial role in fostering adjustments in industry structure and in promoting economic growth. Many countries have policies that promote technology as it is recognized as a key to economic development (UNCTAD, 2008).

There are two major parties involved in the processes of FDI and TT: the host government (HG) and foreign investors (FI). They are the key actors in the FDI process. These actors are the driving force behind the start of the processes of FDI and TT. According to Marinova et al. (2004), there are three parties participating in the processes of FDI and TT; they are foreign investors; the host government and host firms (local companies). The importance of the local company (host firm) is determined by its technological level, size and ownership structure. Host firms of whatever size in developing countries often do not play a significant role in initiating the processes of FDI and TT.

One of the very important issues in the Libyan economy is the level of FDI, because it still suffers from low volumes of foreign investment compared to some other developing economies such as Egypt. In addition, one could also point out that FDI and TT are comparatively new issues for Libya’s decision makers and corporate managers (Libyan Foreign Investment Board, 2000, 2005, 2007).

As FDI in Libya has been relatively small (Libyan Foreign Investment Board, 2000, 2005, 2007) the opportunities for TT via this route have been restricted. In contrast, Egypt is perceived as more advanced in its more concerted efforts to attract FDI and related TT. This provides an opportunity to consider...
Egypt’s development as a possible model for the future development of Libya as FDI and TT are very important for the future of both Libya and Egypt and for the global economy as a whole (Libyan Foreign Investment Board, 2000,2005,2007). Egypt has been chosen for this comparative study for the following reasons: firstly, Egypt and Libya are in close geographical and cultural proximity, hence having low psychic distance; secondly, the Egyptian economy is more diverse and developed than the Libyan economy; and thirdly, Egypt does have long-term experience in attracting FDI and has emerged as the leading FDI recipient in Africa, achieving second place in FDI in 2006. It was ranked 33rd in the world for attracting foreign investment and Egypt has received US$11 billion in 2007, according to the World Investment Report (UNCTAD, 2008). The research questions for the study were based on these ideas and are discussed in detail below.

2. Literature Review

Forging direct investment (FDI) and technology transfer (TT) have become of key significance to the formation of economic structures, especially in developing countries, it has been recognized that forging direct investment (FDI) and technology transfer (TT) are key factors in the process of economic (OECD, 2002). For these reasons, it is of importance to investigate the impact of forging direct investment and technology transfer on economic development in host countries. An argument of this thesis is that the perspective taken on forging direct investment (FDI) and technology transfer (TT) rarely is from a host country. This part reviews both forging direct investment as a source of technology transfer and exploring the nature of FDI and TT. The chapter focuses on theories of Forging direct investment (FDI) and technology transfer (TT) relevant to a host country perspective. The impacts of the process of forging direct investment and technology transfer on economic development and economic growth are put under scrutiny. Finally, a review of relevant empirical literature on FDI and TT is presented.

2.1. The Concept of FDI

Fundamentally, investment is of two types: indirect and direct. Indirect investment is the movement of capital through intermediate markets or organizations such as a store exchanges or bank loans. Direct investment concerns direct managerial financial and operational control over companies as a crucial factor. It is this latter type that gives increase to FDI. This second category includes different types of assets and contractual arrangements relating to FDI hollers use the term ‘FDI’ differently. For example, (Moosa, 2003) describes forging direct investment as a process undertaken by a country’s corporations or individuals in which they buy assets or manufacturing units in other host country to improve production processes. Reference is made to FDI in the transfer of capital and technology from a home country to a host country.

Chen and Reger (2006) define FDI as “investment that brings (foreign) investors effective control and is accompanied with managerial participation”. On the other hand, these authors also describe FDI as being an investment by MNCs in host country for the purpose of production, acquiring assets and controlling activities of other firms in those countries.

2.2. The Concept of TT

An analysis of the process of forging investment and technology transfer requires a definition of technology. Technology has been defined in various ways. While historically definitions emphasized the ‘technique’ of production, more recent definitions are broader and more meaningful, in that they include, for example, marketing and financial management, in defining ‘technology’.

According to the World Intellectual Property Organization (WIPO) a comprehensive definition of technology - in the Licensing Guide for Developing Countries - (1977: 45) is: “Technology means systematic knowledge for the manufacture of a product, the application of a process, or the rendering of a service, whether that knowledge be reflected in an invention, an industrial design, a utility model, or a new plan variety, or in technical information or skills, or in the services and assistance provided by experts for the design, installation operation, or maintenance of an industrial plan, or the management of an industrial or commercial enterprise, or its activities.” Along with such definition, technology is independently defined by many researchers; each of them with their own point of view that is depend on different factors.

Technology can be a non-tangible asset, such as marketing or skills training, ‘tangibility’ can be seen in terms of capital through financial investment. It is imperative for developing countries to use technology as an important mechanism for economic prosperity (Chen and Reger, 2006).
According to Dunning (1982), the broadest concept of technology could be considered as “a resource that comprises knowledge applied to improving the efficiency of the production and marketing of existing goods and services and of the creation of new goods and services”. Dunning (1994: 3-5) again utilized the same definition. For Lan (1996), technology is the creative activity (research and development) that is used to create new products using technical and scientific knowledge.

3. Mechanism of TT via FDI

The mechanisms of TT are the means by which the technology is transmitted from the seller to the buyer. As technology may be comprised of interrelated components having different degrees of sophistication there may therefore be multiple mechanisms by which the process may be accomplished.

Ramanathan (1995) divided TT mechanisms into those that were either market or non-market oriented. Market oriented mechanisms were considered to be those stimulated by the profit motive. Market forces influence growth, competitiveness and the profits of the seller and buyer. Non-market oriented mechanisms in contrast were not motivated by market forces and financial gain. The major mechanisms of TT are: purchasing of equipment and FDI; joint ventures; technical collaboration; licensing; technical services agreements; turnkey contracts; sharing production; joint research; management contracts; product in-hand contracts; expert services; construction and engineering agreements; trade in goods and services; cross-border movement of personnel (OEDC, 2002). Non-market oriented mechanisms include; technical information services; manufacturing trade fairs and exhibitions; conferences, seminars and workshops; training; sales literature; books and academic journals and informal personal contacts.

According to the OEDC (2002), TT may flow via greenfield developments or acquisitions, in addition to joint venture forms of FDI. TT flows through one of these options depends on both host government and FI motivations, because the motives of HG may be completely different to motives of FI. The motives of HG for the processes TT (and of FDI) are usually those of seeking economic development and economic growth, or acquiring advanced technology and/or the development of economic structures.

TT can take place via all the forms presented previously, but the nature of the technology will likely differ from when the various forms of TT are applied. For example, with greenfield FDI the type of TT from FI to host firm will be new, because it is a start up situation. With acquisition, the type of technology transferred to the host firm depends on the age of the host firm, because the HG, before signing the contract with a foreign investor, can encourage that foreign investor to transfer whatever type of technology that the HG needs, especially if the HG has more than 50% of the project (Again, see Table 3.1 below). On the other hand, the technology transferred via other forms, such as Joint Ventures, may be new or old, because the FI is sharing in an existing firm with the HG or other investor. In this kind of investment (joint ventures), the host government can play an important role in terms of the type of technology transfer, because the HG, before signing the contract with a foreign investor, can encourage that foreign investor to transfer whatever type of technology that the HG needs, especially if the HG has more than 50% of the project (Again, see Table 3.1).

Starting with a new project and with new and high levels of technology, greenfield projects with 100% ownership by the FI will usually be preferred, because in this case the foreign investor perhaps has a preference not to participate with local firms or host governments. Many greenfield starts occur in large markets; on the other hand, acquisition and Joint Ventures (JV) with existing firms, or acquisition and Joint Ventures and may start in small or medium sized markets.

| Table 3.1. Comparative forms for FDI and TT from developed into developing countries |
|--------------------------------------|--------------------------------------|--------------------------------------|
| **Area of investment** | **Greenfield** | **Acquisition** | **Joint Ventures** |
| New project | Purchase an existing company | Sharing in an existing company |
| **Type of technology** | **New technology** | **Old technology or replacement technology** | **New and old technology** |
| **Ownership of investment** | 100% owner foreign investor | Participate of percent between 10 to 49% or 100% for foreign investor with partner | Sharing percent with local government or company |
| **Country of foreign** | Developed | Developed | Developed or |
From various aspects of Table 3.1 it can be seen that, from the perspective of the host country represented by the host government (HG), various forms of FDI and TT bring different impacts on economic structure. Taking a time dimension, acquisition and JVs will produce quicker but smaller impacts on the economic structure. If a greenfield approach is applied the impacts will be more significant. However, impacts will vary with the ownership structure. If the new entity is wholly foreign owned, the HG will perhaps have to intervene heavily to preserve the interests of the host country (HC), in terms of economic development and economic benefits. The country-of-origin of the investment and technology is also of key importance. Overall, the factors need to be managed appropriately by the HG to reach the best possible outcome from their perspective (UNCTAD, 2008).

The concept of forging direct investment has become more and more attractive to HGs in less developed countries, because it can play a very important role in economic growth and economic development, as well as the transfer of advanced technology. Host countries are giving more incentives. These incentives include tax concessions being offered for a specific time period and tariff reduction, as well as good investment policies. According to the United Nations Environment Programme (2003), developing countries are more attractive to foreign investors than the less developed countries. There are a number of reasons for this, including political stability, and the potential speed involved in developing new projects for the sake of country’s development.

Other important factor is the ability to recover the investment (in the shape of profit margin), as compared to LDCs. So it can be said that developing countries have a competitive advantage compared to the less developed countries in attracting FDI because there is a different level of economic development and different government motives. In brief, the evidence presented in this section it can be concluded that forging direct investment and technology transfer have become critical aspects for the advancement of developing countries and ensuring their economic growth. The following sections focus on the impact of FDI and TT on economic development and economic structure, and review the empirical literature on FDI and TT (Ali and Guo, 2005).

### 4. Conceptual Framework for Forging Direct Investment and Technology Transfer

This conceptual framework is based on: the actors in foreign direct investment and technology transfer; factors impacting foreign direct investment and technology transfer; the mechanisms of TT via FDI, and the impacts of foreign direct investment and technology transfer on economic growth and the development of a country’s economic structure. Different aspects of the theoretical framework will be discussed in more detail in the following sections.

#### 4.1. Actors in Foreign Direct Investment and Technology Transfer

FDI from the developed world is the most important source of technology transfer. Thus, FDI originating from this part of the world has the potential to generate considerable technological transfer. However, whether and to what extent FDI facilitates TT, varies according to economic development and the priorities of the host/recipient country and its economic structure. FDI and TT are important and effective ways that catalyse economic advancement in the developing countries (Dyker, 1999; OEDC, 2002).

The processes of foreign direct investment and technology transfer can be found anywhere in the world (developed or developing countries), but these processes are more important when they take place between home and host countries. That is because developed countries can provide FDI and also advanced technology, and also developing countries are interested in foreign direct investment and technology transfer (OEDC, 2002).

The actors in foreign direct investment and technology transfer are the starting point in the process of FDI and TT in developed and developing countries. The actors are the driving force that leads the process to start. There are two chief actors involved in the process of FDI and TT: host government (HG – especially in centrally planned economies) and foreign investor (FI). When FDI and TT go from developed countries to developing countries (from home to host countries), as there are different economic structures, different needs and different levels of economic development, there are also varieties in these processes.

4.2. Factors Impacting Foreign Direct Investment and Technology Transfer

In the process of foreign direct investment and technology transfer, it is important to distinguish between two kinds of factors, classified as the manageable (Tvaronaviciene, 2006) and the unmanageable.

It has to be pointed out that the factors that are specific to one of the actors, either FI or HG, do not themselves have a big impact on the process of foreign direct investment and technology transfer (Saggi, 2002). Thus, the focus should be on factors that are common to both FI and HG. The manageable factors of are of crucial importance. This is because the manageable factors represent the capability of the actors to improve, strengthen and change the conditions for foreign direct investment and technology transfer. For the HG it is most important that foreign direct investment and technology transfer secure economic growth, improve the economic structure, overcoming any technology gap, acquire new skills, and provide good levels of education, infrastructure, taxation and political stability. Thus, generally speaking, the host governments can encourage or discourage the processes of foreign direct investment and technology transfer via their policies. The host government policies, (which constitute manageable factors) such as those concerning trade and investment, can play key roles in the processes of attracting and performing foreign direct investment and technology transfer. Applying such policies, host governments of developing countries can obtain FDI and access to more advanced technologies from developed nations.

Obtaining the ability to effectively use advanced technology can be an important and major condition to secure development of their economies. Generally, host governments can provide more constructive conditions to strengthen the factors for the processes of foreign direct investment and technology transfer. The manageable factors, common to both FI and HG, create the necessary preconditions for FDI and TT, when FI and HG act together.

Unmanageable factors for foreign direct investment and technology transfer, such as the availability or lack of natural endowments, location of the host country and the climate of the host country, cannot be changed according to the will of the HG. However, if the host government controls many kinds of natural endowments, it can develop infrastructure with a high quality of technology needed for the extraction and realization of the products from the natural endowments, thus encouraging foreign direct investment and technology transfer (Cannice et al., 2003; UNCTAD, 2008). According to Ali and Guo (2005) market size and market growth, labour cost, host government policies, cost of capital, location distance and cultural differences in the host country versus home country are factors of crucial importance for attracting and materializing foreign direct investment and technology transfer (in China).

The idea existing in Figure 4.1 below 1 is that the factors that impact the processes of FDI and TT can be divided into Group A (manageable) and Group B (unmanageable). All factors belonging to Group A applying to both foreign direct investment and technology transfer can be managed or changed by the host government; the host government can change infrastructure in order to encourage foreign investment to take place in the country through development of roads; transportation; services and so on, while those that belong to Group B for foreign direct investment and technology transfer cannot be changed by the host government (availability of raw materials such as oil and gas), because this factor (outside the control of the host government) cannot be increased or decreased.
An integrated framework is presented in Figure 4.2, incorporating elaborations from the literature review chapter. The upper-most layer of the framework refers to the processes studied, namely foreign direct investment and technology transfer. Further down, the two key actors that are always present in these processes are depicted: the foreign investor (FI) and the host government (HG). In more complex cases, other actors such as host country firms or foreign parent firms can be involved. In order that the processes can be managed well by the HG, the factors pertaining to FIs and HGs are subdivided into manageable and unmanageable classes and then associated with each part of the processes studied. Then the mechanisms through which TT via FDI takes place are summarized and the impacts of the processes on the host economy recapitulated.

The present study employs this framework to study the impact of foreign direct investment and technology transfer on economic structure, from the highest layer to the end of the process in the lowest layer.
Figure 4.2. Framework for factors FDI and TT and their impacts on HG

FDI and TT

Actors

Aims of FDI for HG: Economic development; increasing productively; increasing exports; increasing incomes; competitiveness upgrading and technology transfer.

Amis of FDI for FI is resource and market.

Factors for having FDI and TT

Factors for FDI:

Manageable: Environmental factor: economic structure; economic growth; infrastructure; capacities, tax; political stability and relationship between home and host countries.

Unmanageable: Availability of raw material; location and climate

Factors for TT:

Manageable: Governance; size of the market; economic structure; technology gap; cost of technology; skills of labour; good level of education and relationship between home and host countries.

Unmanageable: Stages of technological development home and cost of technology

Mechanism of TT: Purchasing of equipment and products; FDI; Joint ventures (JVs); Licensing; Technical services agreements; Management contracts; Joint research ventures and Product in hand contracts

Impacts of FDI and TT on host country economy: Economic growth, developing economic; developing structure of economy; money; expertise; new technology or developing old technology.

FDI and TT take Place in Host Economy or Host Company
5. Research Methodology

According to Bryman (2008), social research methods can be divided into two main categories: qualitative and quantitative. A qualitative approach involves dealing with events and information in a non-quantitative manner, in which the results will be obtained through observation and the analysis of events featuring attitudes, pictures, documents and communication or otherwise. Quantitative research is usually worthwhile when ample literature and data about the subject of study are readily available, leading to the easy creation of specific hypotheses. Moreover, Malhotra (1993) argues that exploratory research’s target is to provide a temporary understanding of the research problem.

This study uses qualitative research because its aim is to explore and understand the process of foreign direct investment and technology transfer in Libya and Egypt. So an exploratory and comparative approach is better suited and more focused.

A qualitative approach, here mainly questionnaires, provides opportunities for participants of foreign companies in the two countries (Libya and Egypt) to present their views about the process of foreign direct investment and technology transfer in the two countries.

The research approach adopted will use Libya and Egypt as specific instances for the investigation of the process of foreign direct investment and technology transfer in two developing countries (Libya and Egypt). The use of such an approach is consistent with previous studies in this area. There are many reasons for choosing Egypt for this comparative study: firstly, Egypt and Libya are in close proximity geographically; secondly, the Egyptian economy is more diversified and developed than the Libyan economy; thirdly, Egypt has long-term experience of FDI.

Interviews are not used in this study, because in this research context, the researcher would need go through a number of administrative procedures before being allowed to conduct any interviews in the two countries, and because the foreign companies are distributed across a vast geographical area in the two countries.

6. The Contexts of the Study Libya and Egypt

6.1 The Distribution of Foreign Direct Investment in the Libyan Economy

FDI has played an important role in supporting the growth of the economies of developing countries. According to the Central Bank of Libya (2008) Libyan economy is still suffering from a low volume of foreign investment, relative to some other developing economies such as Egypt. The flows of these investments are fluctuating from year to year as shown in Table 6.1, and their structure is still limited to a few sectors such as oil, which is the largest sector to attract FDI. Infows to this sector began in 1962; almost immediately after Libya found oil and gas in commercial volumes in 1959.

Forging investment in Libya was historically small for various reasons; a key one is the Libyan government did not allow foreign investment in the economy, or allowed it only via limited ways, especially in oil and gas sectors. Another reason is that the topic of foreign direct investment was a new issue in the Libyan economy and there was a lack of preparedness by the government, and there was no investment organization in Libya until 1998. At that time the Libyan government established (in 1998) the Libyan Investment Board (LIB). A further reason for the fluctuation in investment flows from year to year is that Libya is trying to attract a large amount of FDI, as shown in Table 6.1.

The Libyan government has passed a number of laws to improve the climate for FDI and for local investment. The Libyan Investment Board (LIB) in 1998, (in accordance with the provisions of Law No. 5 of 1997) was created to encourage FDI. In addition, Law No. 4 of 1997 was concerned with the organization of import and distribution of commodities, Law No. 9 of 2000 dealt with the organization of border and free zone trade, Law No. 21 of 2001 focused on the organization of economic activities. Law No. 3 of 2005 allowed foreign companies to open branches in Libya and Law No. 7 (2008), allows foreign investors to create partnerships with local investors in the agricultural, industrial and service sectors, including telecommunications, real estate, electric power and infrastructure, and tourism. So over a period of ten years, the legal framework changed substantially. Law No. 7 encourages FDI into Libya and offers many benefits, such as tax holidays, exemption from income tax for 5 years, and tariff reductions or exemptions. The level of forging direct investment in Libya remained relatively small (compared to other producers), which restricts the opportunities for technology transfer via FDI (Libyan Foreign Investment Board, 2000,2005,2007).

According to the Central Bank of Libya (2009), the value of FDI inflows into the Libyan economy during the period 2000-2010 increased from US$189 million in 2000 to US$3.1 billion in 2010, as shown in Table 6.1. This is due to Libyan government efforts to improve the investment environment,
particularly with regard to facilitating the procedures for establishing companies and reducing the size of bureaucracy and a significant reduction in the rate of tax.

Table 6.1. Net FDI inflows to Libya in Billion US$ during the period 2000-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>189</td>
<td>145</td>
<td>143</td>
<td>357</td>
<td>1.038</td>
<td>2.013</td>
<td>4.689</td>
<td>4.111</td>
<td>2.674</td>
<td>3.833</td>
</tr>
</tbody>
</table>

Source: Central Bank of Libya (2009).

6.2 The Distribution of Forging Direct Investment in the Egyptian Economy

Egypt, with a population of over 74 million, is one area of the African continent that is working towards increasing TT. Egypt has been attracting some forging direct investment, although this has not been quite as significant as in other countries. Its total share of African FDI has dropped from 20% in 2001 to 1.7% in 2002, in spite of the fact that many Middle Eastern countries have a monopoly over the petrol sector. Beginning in the 1990s, the Egyptian government started the process of industrialization and began a series of measures to make the necessary structural adjustments; Egypt has consequently been considered to be an area for forging direct investment as an Arab nation. At the beginning of the 1920s a drive was started to shift the economy from benefiting foreign countries to one that concentrated on developing a more domestic economy. Many areas of productivity were developed, including natural resources and factories. This shift had profound effects on the Egyptian economy (Ministry of Investment in Egypt, 2008).

Forging direct investment became a strong force. In 1960, all companies were nationalized and as a result private business were brought under scrutiny and more tightly controlled. In 1973 there was a big change when, under the Sadat regime, a free market economy was initiated. This free market economy brought in a system of trade intervention measures aimed at helping businesses; while regulated, there was a clear system in place to protect the domestic and foreign markets. Today, after further upheavals and a period of State involvement, Egypt has a new open economy that attracts FDI. The historical legacy has left a mark in its history, resulting in a free market economy where there is trade and investment for both home and foreign markets. In 1997 Investment Law No. 8 was introduced to regulate investment, including foreign investment (UNCTAD, 2008). Today FDI continues to play a significant role in the Egyptian economy, with the objective of sustaining economic growth and attracting FDI. This was evident in 2004 when the Ministry of Investment identified forging direct investment in Egypt as a way of moving the economy forward. Of all the African states, and between the years 2000 and 2008, there was a greater increase in FDI in Egypt than elsewhere. Consequently, Egypt became a target for further FDI, making it one of the most heavily concentrated areas for foreign investment of all the African nations, and generating praise for its attitude towards foreign investment. Egypt was the top African country in attracting FDI, being the top performer in 2008 (Ministry of Investment in Egypt, 2008).

This legacy indicates that Egypt may have a bright future ahead and has the potential to increase FDI. This should mean that there will be more productivity, higher investment power and a more educated and skilled population. The following Table 6.2 shows GDP and forging direct investment trends in Egyptian. In the energy sector, volume has increased to 67.6% of the total FDI during 2005-2008.

Table 6.2. FDI inflows measured as a percentage of GDP in Egypt during 2002-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>6.0</td>
<td>9.2</td>
<td>9.3</td>
<td>6.0</td>
<td>9.3</td>
<td>9.2</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Sources: Ministry of Investment in Egypt (2008)

7. Analysis of Foreign Direct Investment in the Main Economic Sectors of Libya and Egypt

There are two types of economic diversification: vertical and horizontal. Vertical diversification is when an economy depends on the various layers or supply chain of one sector, such as oil and gas, as in the case of Libya. Horizontal diversification is when an economy is sectorally independent, for example the one of Egypt (depending on several strong sectors). Both types of economic diversification are influenced by the degree of development of the economy (Central Bank of Libya, 2008). This study deals with the analysis of investments by foreign companies in five selected sectors within Libya and Egypt, namely, oil and gas, manufacturing, agriculture, tourism and services, because these sectors are the most important ones in terms of forging direct investment and technology in Libya and Egypt and in terms of
attracted forging direct investment in economic sectors in both countries. The sectors are reviewed in the next part.

7.1. Analysis of the Investments of Foreign Companies in Libya

7.1.1. Foreign Firms in the Oil and Gas Sector

The economic structure of Libya is significantly skewed towards the massive role of the oil and gas sector to the GDP of Libya. According to the (Libyan Foreign Investment Board, 2000,2005,2007), there are 149 foreign companies in Libya, which have entered the operational phase. There are also many more companies under development at this time, most of which are also in the energy sector. FDI in the sector of oil and gas started with the first discovery of oil in the mid-1950s and has continued until the present. Throughout this period there have been many barriers to FDI into the energy sector. For example, between 1970 and 1990 the Libyan governments was not willing to allow any FDI in the country, and from 1990 to 2003 most foreign investors were not interested in investing in Libya due to the international sanctions placed on the country (Alfergani, 2010). The post-sanctions era has also presented challenges.

Another factor to consider is that there was no Libyan investment organization until the beginning of 1998. Following this, the Libyan government established the Libyan Investment Board (LIB) in order to improve the climate for FDI as well as high levels of technology transfer. In this same year, 1998, most FDI went to the energy sector, as Libyan-Western county relationships were deteriorating and opportunities in the Libyan economy were extremely limited because energy sector was the key for all economic sectors. However, the climate for FDI was soon to be boosted by the positive political developments resulting from the improvements in Libyan-Western relationships and Libyan policies substantially improved the business environment. FDI inflows into non- oil sectors have, since mid-2003, started to increase (Central Bank of Libya, 2008). The Libyan Investment Board was also given the power to take all measures that it deemed appropriate for attracting FDI, through providing privileges and exemptions.

The clear majority of foreign companies have invested in the oil and gas sector. In the case of Libya the motives of foreign companies are to access Libyan oil and gas due to the abundance of Libyan natural resources that are of high quality and have a historically low cost of extraction. The most important factor is the active promotion of oil and gas activities by the government and also the fact that the structure of the Libyan economy is entirely dependent on oil and gas (Central Bank of Libya, 2008).

In 2009, the oil and gas sector attracted 47 foreign companies in both exploration and production, and the buyers of energy sector were both from the local and international markets such as the European Union. This resulted in Libya obtaining some competitive advantages in this sector that led to attracting more FDI to Libya (Central Bank of Libya, 2008). There are a number of reasons as to why the oil and gas sector attracts a high number of foreign firms to invest in the Libyan market. For instance, the quality of Libyan oil is regarded as having low production costs, being easily extractable, having low costs of oil recovery with lower transportation costs than any other oil producing and oil consuming country in North Africa including Egypt (Libyan Foreign Investment Board, 2000,2005,2007) – though recent unrest has severely damaged these advantages.

A participation agreement (a joint venture) was one of the foreign investments forms in this sector for a long period of time. Under such agreements, foreign investors financed the exploration phase of oil operations and brought the best technology in the field. Using IJVs the Libyan government keeps 50% of the shares of the project; in order that the Libyan government would be able to manage and control some parts in the process in this sector and benefit from the processes of FDI and TT in the best possible way.

In addition, the wealth of natural resources, are not fully realized simply by the export of crude oil and gas to any country, because Libya will receive more benefits if it exports derivatives of oil and gas, such as petroleum and petrochemical products (Central Bank of Libya, 2008). This means that the government of an oil-producing state should consider not only oil exploration and extraction, but also refining and revenue derived from the manufacture of finished goods. However, this implies a need for the country to develop its economic structure in a balanced way. In other words, if a country develops ones sector, this fact requires the development of another sector or sectors in connection with it initially. Thus, taking Libya as an example, if the development of the oil and gas sector is achieved, it must also lead (eventually) to the development of other sectors, for example, the service sector, manufacturing and so on, initially to support oil and gas extraction. This will result in the encouragement of foreign direct investment with technology transfer, in order to gain access to the Libyan environment (Libyan Foreign Investment Board, 2000,2005,2007).
7.1.2. Foreign Companies in the Non-Oil Sector

7.1.2.1. Agriculture Sector

Historically, agriculture and livestock have been important components of Libyan society, with more than half the population engaged in agriculture. Moreover, before the discovery of oil and gas reserves, agriculture contributed approximately 25% of GDP. The official figure for 2003 indicates that it then represented 4.5% of GDP and 7.8% of total employment (Central Bank of Libya, 2008).

Unfortunately, the agriculture sector performed very weakly in 2009; it attracted only five foreign companies. The low level of foreign investment in the agricultural sector is for many reasons, the most important of which is the limited arable land available (less than 0.3% of the country). Generally, there are high risks associated with agricultural investment such as ownership, the seasonal nature of agricultural production and a desert climate. As a result, about 75% of Libya’s food is imported from developed and developing countries such as Egypt and Tunisia (Libyan Foreign Investment Board, 2000, 2005, 2007).

Although this sector could become a key contributor to Libyan exports and the economy overall, Libyan needs to be clear about economic and social objectives as well as being clear with foreign investors. Libya has many competitive advantages in this sector such as being close to key potential export markets for goods, and an import market for cheap labour (Central Bank of Libya, 2008).

7.1.2.2. Tourism Sector

The tourism sector is also an important source of economic and employment growth for developing countries such as Libya. Libya is close to major European outbound tourism markets and foreign investor markets. Therefore, there is a clear potential for Libya to develop a tourism industry, and this should enable Libya to encourage foreign investors to come to Libya to this sector. However, the tourism sector performed weakly in 2009, it attracted only 36 foreign companies. Clearly, it was not fulfilling its economic potential and contributed less than 3% of GDP with 4% of employment in 2003, while in 2007 it contributed about 4.1% of GDP.

In Libya, the motive of foreign firms for accessing the tourism sector is a market-seeking motive, because foreign investors are looking for new market for sales of their products. Libya, being close to major European outbound tourism markets and also foreign investor markets offers potentially huge opportunities for investors (given a Mediterranean coastline, five world heritage sites [UNESCO] and major desert areas). On the other hand, the motives of the Libyan government for developing the tourism sector is to diversify sources of income, increase the contribution of this sector in GDP terms, create new jobs and develop local skills, as well as development of its economic structure.

The low foreign investment in the tourism sector is due to many reasons, such as international sanctions, and the limited availability of foreign investment (FI) opportunities that come from Libyan government. Other influences include Libya’s image abroad, policy uncertainty, and administrative difficulties in the FDI approval process. This has led to a lack of confidence being generated among foreign investors, which means that it is unlikely that many of these investments will be realized (Central Bank of Libya, 2008). Current unrest compounds these issues. Furthermore, the natural factor conditions, such as the location of Libya are not enough on their own to encourage foreign investors (FI) to come to Libya. According to Libyan Foreign Investment Board (2000, 2005, 2007) the Libyan government must provide better conditions to encourage foreign investors, such as providing good policies, investments opportunities and good infrastructure such as roads, airports, communication and so on, as well as working to create a safe tourist environment. The investment level in this sector was good when compared to other economic sectors; it came third in rank in terms of the number of foreign companies.

In tourism, the motives of the Libya government and FI seem to be complementary and a number of foreign companies have entered the market. One needs access to new market (market seeking motive) and the other has a need to develop the sector further, given the appropriate in-country conditions.

7.1.2.3. Manufacturing Sector

In the 1990s, the state of manufacturing worsened as a result of international sanctions. This situation remained from the 1990s to 2004. During this period there were a number of factors that had a negative impact on this sector. For example, a low level of technology, and a lack of expertise and managerial know–how held the sector back. In 1997 the Libyan government passed Law No 5 which opened the door to FDI. However, because of continuing international sanctions, the effect of this law was limited. After international sanctions were lifted, many reforms were introduced to attract FDI to the industrial sector (Libyan Foreign Investment Board, 2000, 2005, 2007).
The contribution of the manufacturing sector to GDP increased from 1.8% in 1970 to 5.2% in 2008, but this is relatively modest when compared with the contribution of oil and gas and service sectors (Libyan Foreign Investment Board, 2000, 2005, 2007).

In the numbers of foreign firms in the Libyan economy, manufacturing came in second place in 2009. The change of the policy of Libya from year 1970 to 2009 saw the number of foreign companies change. During the period 1990 - 2003 there were only a small number of foreign companies due to the international sanctions on Libya. After international sanctions were lifted the Libyan government made reforms of the economy, in order to attract more FDI to the manufacturing sector. There are 38 foreign companies within the manufacturing sector, which includes 12 companies in the field of food industries, 12 in the engineering sector, 10 in the chemical industry and 4 in the field of building materials. The total foreign investment (FI) in the manufacturing sector was 331,110 million Libyan dinars by 2007, concentrated mostly in the engineering and food industries, which accounted for 86% of the total investment. There were 13 projects in operation in manufacturing, mostly concentrated in the manufacture of soft drinks (Libyan Foreign Investment Board, 2000, 2005, 2007).

7.1.2.4. Service Sector

The service sector in Libya has changed enormously over the last few years. A number of foreign investors have joined the sector with different types of investment. The Libyan service sector has various key elements. These include banking, finance, transport, communications and telecommunications and service came in fourth place with regard to the number of foreign companies investing in the country (Libyan Foreign Investment Board, 2000, 2005, 2007).

There are many obstacles, such as the level of technology and the experience of the people that have impacted negatively on the performance of the financial sector. The Central Bank of Libya has not played its role properly in this sector for a number of reasons, some connected to the system of government (Shernanna and Elfergani, 2007). The impetus for Libya to attract foreign direct investment was to attract technology transfer and managerial know-how and skills in the banking sector, as well as to create sources of income other than from sector of oil and gas (Shernanna and Elfergani, 2007).

After issuing these laws (Law No. 1 and Law No. 2) many international banks (including HSBC, Emirates Bank, Qatar Islamic Bank and Unicredit Group Bank) now have licenses to operate and open new branches. However, the Central Bank of Libya has imposed many conditions on these banks before they invest into this sector. For example Libya has encouraged FDI through the joint ventures form, participation rate of 51 % for Central Bank of Libya and 49% for the foreign bank. Furthermore, the banks must transfer very high levels of technology for use in the banking sector, such as software and computers, and training in banking services. The positive impact of Law No. 1 and the policies of the Central Bank of Libya have had some positive impact on FDI and technology transfer. However, there are many studies which point out that the financial sector itself plays a very important role in encouraging FDI (Alfaro et al., 2002).

Additionally, the Libyan government has focused on further industries in order to encourage FDI, such as telecommunication, because the policy of the Libyan government favours development and upgraded technology in this sector. The role of telecommunications and information technology in promoting economic development is, as with financial services, very important; it gives an opportunity for countries to achieve substantial progress through the modernization of production systems and enhance their competitiveness. The telecommunications sector has achieved great success in terms of income and in the number of subscribers to mobile phone services; this sector has also contributed to the dissemination of internet services. This sector is heavily dependent on a high level of technology which has significantly improved in recent times; telecommunications will undoubtedly therefore be one of the most important economic sectors for Libya in the future, continuing to contribute to technology transfer (Libyan Foreign Investment Board, 2000, 2005, 2007).

7.2. Analysis of the Investments of Foreign Companies in Egypt

7.2.1. Foreign Firms in the Oil and Gas Sector

The first oilfield was discovered in Egypt in 1869 and started production in 1910. Initially, all Egyptian oil fields were developed as IJVs between the Egyptian government on the one side and British Petroleum and Royal Dutch Shell on the other. In 1962, the formation of the Egyptian General Petroleum Corporation (EGPC) became a major factor in forming new and transforming existing IJVs with foreign investors (FI) and firms (Ministry of Investment in Egypt, 2008).
In 2007, the Industrial Council and Energy Committee of Egypt approved nine IJV agreements with foreign companies with a total value of approximately US$223 million. The oil and gas sector is one of the fastest growing sectors in the country, with a contribution to GDP that increased from 14.3% in 2007 to 17.5% in 2008. The total FDI in it in 2008 was US$9.7 billion from more than 30 foreign companies, which represented 76% of the total FDI inflow in Egypt. In addition, the process of FDI in this sector increased during the period 2000-2009 more than twice to reach US$35 billion (Central Bank of Egypt, 2008).

There are more than 50 local and foreign oil firms from 39 different countries operating in Egypt. To support their functioning there are also more than 400 service firms and 143 oilrigs. However, service firms and oilrigs have attracted a smaller number of foreign firms, mainly due to the fact that Egypt is not particularly rich in oil and gas (Ministry of Investment in Egypt, 2008).

7.2.2. Foreign Companies in the Non-Oil and Gas Sectors

7.2.2.1. Agricultural Sector

The Egyptian government has divided all agricultural activities (based on Egyptian investment laws) into four main areas: land reclamation and plantation, livestock and poultry, integrated agro-industry projects, and fisheries. FDI in agriculture goes back at least to the first five-year plan in President Nasser’s era, 1960/61-1964/65, when domestic and foreign investment (FI) was directed mainly to agriculture and irrigation accounting for more than 35% of the total investment. The majority of these investments were directed to the High Dam in Aswan and land reclamation (Central Bank of Egypt, 2009). At that time the sector had attracted 100 foreign firms that invested and transferred technology to Egyptian agriculture.

It’s worked for a long period of time to improve the sector in order to provide good conditions for the processes of FDI and TT, the aim was to improve the productivity and quality of produce. The motives of the foreign investors (FI) in this sector were mostly market seeking and resource seeking. This is because this sector has many investment opportunities - mostly for the production of cotton, rice, maize, wheat, beans, fruit and vegetables. Thus, the motives of the foreign investors and the Egyptian government have been along the same lines (complementary), resulting in significant FDI and TT from the 1960s till the present. The processes of forging direct investment and technology transfer in this sector in Egypt have been more successful than in Libya; because the Egyptian government managed them well according to the intended goals of the development of Egyptian agriculture (Central Bank of Egypt, 2009).

For attracting forging direct investment and technology transfer (FDI and TT), this sector started to face competition from other sectors of the Egyptian economy, most notably services, manufacturing and tourism. Recently, foreign investment (FI) projects in agriculture have become less attractive to foreign investors, in spite of the fact that they require relatively low capital investment, and technology is not changing rapidly and drastically (compared with the investments required in such sectors as manufacturing).

7.2.2.2. Manufacturing Sector

The relationships between foreign investment and Egyptian manufacturing are old, dating back to the beginning of the 20th century. The manufacturing sector accounted for about 20% of Egyptian GDP in 2006/2007 and employed at that time about 14% of the Egyptian labour force. The private sector plays a very important role in manufacturing, as it contributes more than two-thirds of total manufacturing output. The manufacturing sector in Egypt produces a very wide range of goods (Ministry of Investment in Egypt, 2008).

The first time foreign manufacturing companies invested in Egypt with forging direct investment and technology transfer goals was in 1930, in the food processing industry. In 1957 the German firm Siemens was the first foreign company to establish a large scale FDI and TT related operation in Egypt. At present the largest manufacturing investments in the Egyptian economy are in pharmaceuticals and electrical equipment production (Ministry of Investment in Egypt, 2008).

The pharmaceutical industry in Egypt includes 23 companies: nine government-owned firms producing more than 1,300 types products which, in value terms are about 30% of the products sold in the market, three IJVs producing 210 types of products (the foreign forms are Hoechst, Pfizer and Farman/Novartis); eight multinational firms 100% foreign owned and three domestic private sector companies collectively producing 700 types of products. The export of pharmaceuticals relates to some 490 products that are currently valued at US$4.4 billion. In 2006, the pharmaceutical industry in Egypt
imported approximately 90% of its raw materials and intermediate inputs at a cost of US$221 million (Ministry of Investment in Egypt, 2008).

The pharmaceutical firms with foreign investment operating in Egypt are becoming aware of issues such as local management (most of the management functions now are performed by Egyptians), total quality management systems, regional co-ordination as the Egyptian affiliates are attempting to become fully integrated with their corporate regional players. Learning experience is becoming more of an issue in order to develop the principal segments of Egyptian pharmaceutical subsidiaries, application of innovation-driven products, and off-patent drugs, training of personnel to achieve high standards, and future investment plans of pharmaceutical companies in Egypt (UNCTAD, 2008).

Historically, the conclusion for manufacturing is that the Egyptian business environment has been better than the Libyan for a number of reasons. The most important is probably that Egypt has had a consistent government policy towards forging direct investment and technology transfer, resulting in a balanced economic structure with many different foreign companies having worked successfully in the Egyptian economy for many decades.

Egypt has a wide range of well-developed manufacturing related operation that are well interconnected representing a solid basis for the functioning of the whole economy and stimulating the attraction of further FDI and TT in the country.

7.2.2.3. Service Sector

Egypt has developed its service sector over a long time, especially banking. The government has undertaken considerable restructuring and consolidation of this sector since the-1990s. Thus, in 1991, the Egyptian government liberalized the banking sector, easing restrictions on foreign banks operating in the country. In 1993, the Central Bank of Egypt allowed foreign banks to operate using Egyptian currency. Furthermore, in 1996 new legislation allowed foreign ownership of 100% of local banks, subject to the individual approval of every takeover by the Central Bank of Egypt. In 1998, legislation was passed to allow the privatization of four large state-owned banks (Central Bank of Egypt, 2008).

The policy of the Egyptian government for FDI and TT has been to secure the development of all economic sectors, improve the quality of products, upgrade productivity, and upgrade technology, as well as increase exports and income. Foreign investors’ policies have been to access the Egyptian market. These general arguments can be applied directly to the banking sector. The role of the Egyptian government was very significant in the process of FDI and TT in the service sector through the improvement of the investment law. As a result, the service sector is very significant for both the Egyptian government and the foreign investors. It has attracted more than 355 foreign companies in various areas of service (Central Bank of Egypt, 2008).

7.2.2.4. Tourism Sector

Egypt is one of the most popular tourist destinations in the world and the tourism industry has been one of the key sectors to the Egyptian economy for a very long time. The history of tourism in the country goes back at least to the discovery of the Pharaoh antiquities, which add a special charm to Egyptian tourism.

In 2009, Egypt received more than 14.7 million international tourists, an increase of 17.6% over the previous year. The most important numbers come from Russia, Germany, Italy and the UK. This sector has a contribution of about 16.3% to the Egyptian GDP, with annual total revenue of more than US$1.8 billion. Furthermore, this sector provided about 2.8 million jobs in 2006/2007. The Egyptian government used the tourism sector to provide a major share of income to the Egyptian economy and absorb a large share of the workforce. The impact of the ‘Arab Spring’ caused numbers of visitors to drop, but the Egyptian government predicts that they will recover to pre-crisis levels in 2015. This may prove optimistic, given current regional unrest.

The processes of FDI and TT in tourism were very successful, because foreign companies were critical in terms of their impact on tourism sector. The Egyptian government has worked hard to develop and improve this sector for a very long period of time.

In recent years, before the current crisis, FDI in Egyptian tourism has provided strong support to this sector, attracting more than 220 foreign companies with different types of investment in hotels, restaurants, shops, tourist village creation, etc. To supplement these activities the Egyptian government has undertaken various actions, such as branding and positioning Egypt as a world tourist centre, engaging in active cultural promotion, and introducing more incentives to promote the Egyptian tourism industry (Ministry of Investment in Egypt, 2008).
The processes of forging direct investment and technology transfer in the Egyptian tourist industry have been more successful than in Libya for number of reasons. For example, the number of foreign companies investing in tourism in Egypt is greater than in Libya, mainly for historical reasons and the Egyptian government’s tourism development policy. Such a policy has been lacking in Libya. The general approach of the Egyptian government has been focused on managing all factors that relate to the processes of forging direct investment and technology transfer. The development of tourism proceeded in harmony with other economic sectors, in order to make contributions to the national GDP balanced. Such observations do not apply in Libya. 

According to data depicted in Table 7.1 and Table 7.2 the picture in Egypt was very different from the one in Libya. There are different competitive advantages concerning Libya and Egypt, due to the striking differences in the processes of forging direct investment and technology transfer in the two countries.

The Egyptian economy, in part due to the policies of the Egyptian government, is diverse and its economic structure is balanced. The level of FDI, numbers of foreign companies and their TT in Egypt are all greater than the respective characteristics for Libya. The Egyptian conditions for forging direct investment and technology transfer (FDI and TT) are more favorable than in Libya, with firms not only in one particular sector, but in variety of sectors (Central Bank of Egypt, 2009). Egypt has long-term experience of FDI and the Egyptian economy and economic structure are substantially more developed than the ones in Libya. In addition, it may be said that the Egyptian economy is one of the strongest economies of the Arab world and is the second largest in the Middle East and North Africa.

In the case of Libya, the processes of FDI and TT were taking place mostly on their own without an active and coordinating role of the national government. One particular reason is that FDI has only recently become an issue in Libya. In addition, the policies and incentives of the HG have been different in two countries (Libya and Egypt). For example, in the sector of oil and gas, the policy of the Libyan government was to attract foreign investment (FI) to develop this sector only in order to increase the revenue from it via increasing productivity and volume of exports. Technological upgrading of this sector was of minor significance once the stated government policy had been achieved. Thus, the Libyan government throughout the whole history of FDI and TT in the country did not manage the development of the Libyan economic structure. The ‘unmanageable’ factors, such as Libya’s extensive reserves and natural endowment, means that Libya retains some competitive advantages in the oil and gas sector, but these advantages were not capitalized on by the policy of the Libyan government.

Libya can potentially benefit significantly from the Egyptian experience concerning the management of processes of forging direct investment and technology transfer by the national government. This would need to sit alongside concern for the conditions under which Forging direct investment and technology transfer occur, in order to develop a harmonious economic structure and achieve fast economic growth. This suggests that any Libyan government should put in place a number of conditions in the field of investment, as Egypt did. At present, the Libyan economy is heavily dependent on revenue from natural resources. Libya is faced with a challenge to be more competitive, even in the energy sector, and at the same time, it needs to create suitable economic conditions to improve the living standards of its population, providing them with the opportunity to produce their own products and services.

Another lesson that can be learned from the experience of Egypt is that to develop a balanced economy takes vision, time and concerted effort on the part of the national government. Tourism, for example, is one area that could provide economic growth and employment for Libya, because the country is located close to Europe, which is a major potential source of tourists. However, such potential cannot be utilized, unless there is suitable infrastructure and improvement in human and financial capital, to attract foreign investment and provide suitable security measures.

Agricultural industries can also contribute significantly to the Libyan economy and attract FDI in order to facilitate technology transfer in this sector. Due to the neglect of this sector, the country presently imports approximately 75% of the foodstuff consumed in the country. Moreover, any Libyan government should consider ways of improving the ICT sector which is currently rather backward and 100% owned by the state. According to Law 8, which was adopted in 1990, the ICT sector cannot be privatized. However, it is important that any Libyan government amends these laws to encourage FDI and TT in the ICT sector, because this sector has important relationships with all other sectors of a national economy.

It can be concluded that Libya needs to diversify its economy as Egypt did. This can be made possible after a holistic analysis of the present economic situation and the potential available for changing the economic, political and security structures. Based on such an analysis, government policy should be developed for the management of the processes of FDI and TT in various sectors of the Libyan economy.
and its overall balanced development, based on diversification via forging direct investment and technology transfer.

### Table 7.1. A comparative history of foreign investment in Libya and Egypt

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>1850</td>
<td>1005</td>
<td>Diverse in all economic areas and sectors</td>
<td>Most investing firms come from developed countries</td>
<td>71</td>
</tr>
<tr>
<td>Libya</td>
<td>1962 in oil/gas, 1998 in all economic sectors</td>
<td>149</td>
<td>Most in the energy sector (oil and gas).</td>
<td>Developed and developing countries</td>
<td>108</td>
</tr>
</tbody>
</table>

Source: The author

### Table 7.2. Number of foreign companies in Libya and Egypt in 2008

<table>
<thead>
<tr>
<th>Sector</th>
<th>Manufacturing</th>
<th>Oil and gas</th>
<th>Tourism</th>
<th>Agriculture</th>
<th>Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libya</td>
<td>38</td>
<td>47</td>
<td>36</td>
<td>5</td>
<td>23</td>
<td>149</td>
</tr>
<tr>
<td>Egypt</td>
<td>300</td>
<td>30</td>
<td>220</td>
<td>110</td>
<td>355</td>
<td>1005</td>
</tr>
</tbody>
</table>


### 8. Conclusions

This section summarizes the conclusions that have been drawn from the primary and secondary data. The primary data was collected through a survey conducted using a questionnaire with representatives of foreign firms in Libya and Egypt. Its purpose was to discover their opinions on the key factors affecting forging direct investment and technology transfer in Libya and Egypt.

- This study found that the economic structures of Libya and Egypt to be very different, also shows the competitive advantages pertaining to Libya and Egypt. Libya has abundant factor endowments in the oil and gas sector, with large, high quality oil reserves. On the other hand, the economic structure of Egypt depends on many different sectors with a more balanced configuration of the Egyptian economy.
- As the results show, the Libyan economy has been heavily dependent on oil to finance development projects. The oil sector was the first to attract foreign companies; it has attracted about 47 foreign companies. In addition, its contribution to GDP was 76%; it was the overwhelmingly most important sector to the economy of Libya.
- The primary data generated through the questionnaire demonstrates that the overall foreign investment environment in Egypt is generally better than that in Libya in terms of attracting FDI and TT. Egypt has a longer history of working with foreign investors, whereas FDI in Libya started recently. The unmanageable factors in Libya and Egypt differ. The market in Egypt is much larger, which accounts for the differences in the policies towards FDI, especially when coupled with a historically suspicious mind-set in Libya. Libya, with huge natural oil endowments, however has attracted FDI based on the constant policy of the Libyan government, but managed to attract only limited amounts of TT.
- The questionnaire analysis showed that the majority of the company’s foreign companies operating in Libya prefer not to share ownership with local companies in the process of FDI, because Libyan companies (local companies) cannot provide the people with the necessary skills and management ability. Foreign companies in Libya believe that local companies are inexperienced and with low levels of competitiveness.
- This study found that the foreign companies in Libya have come from 37 countries (developed and developing). This probably results from Libyan needs to diversify FDI and technology transfer, and because TT is dependent on the manner though which technology transfer takes
place. For example, TT via FDI (acquisition or greenfield) may be of new or old technologies. TT via Joint Ventures may also be new or old, because in Joint Ventures, the foreign investor is sharing in an existing firm with the host government or other investor.

• The majority of the foreign companies (FCs) studied in Libya are wholly owned foreign subsidiaries, 79% of which entered Libya via greenfield investment. This means the foreign companies investing in Libya prefer to invest on their own without the participation of local companies or partners. JVs with the Libyan government are 9% of the studied firms and only 6% are joint ventures with another foreign company. This pattern can be explained by the relatively recent inflow of foreign investment in Libya at all.

• The findings from the questionnaire analysis showed that investment laws, taxation policy, market size, exchange rate and location of investment as factors determining destination preference for FDI in Libya.

• In this study several participants in this study also confirmed that political stability, country geographical location, availability of natural resources are very important factors for the process of FDI and TT in Libya and in Egypt.

9. Recommendations

According to the findings of this research and in light of the above, this section contains recommendations for the Libyan government that would help it to encourage FDI and TT inflows into broader economic sectors in Libya.

• Provide effective means to resolve the problems that foreign investors face in the processes of FDI and TT.

• Foreign investors may be interested to invest in a host country, if the host government provides accurate information about the economy, investments and opportunities. The Libyan government should provide reliable economic data and investment data; this data should be overseen by and linked with international organizations.

• Improving the business investment environment in order to encourage foreign investors, including the infrastructure (internet service, banking service, roads and airports, hotels, geographical maps and so on), because infrastructure is one of the most important factors that impacts on the inflow of FDI. The Libyan government can facilitate infrastructure improvements by allowing foreign investors to invest in infrastructure in order to contribute to improving existing provision.

• Libya should learn from Egyptian experience in addressing a number of conditions. At present, the Libyan economy is heavily dependent on revenue from natural resources such as oil and gas. Libya is faced with a challenge to be more competitive in the energy sector (and other economic sectors). At the same time the Libyan government needs to create suitable economic conditions in order to improve the level of FDI and TT. This should provide it with the opportunity to increase productivity of Libyan goods and services, thus further diversifying sources of income.

• The Libyan government should develop all non-oil sectors, such as agriculture, tourism, manufacturing, services and infrastructure, because the contribution of these sectors to GDP is currently limited. The Libyan government should give importance to these sectors contribution to the national economy and should work to encourage foreign investors in these sectors.

• The Libyan government needs clarity its economic aims concerning investments and to identify priorities for the sectors which needed investment, for example sectors such as agriculture, tourism, manufacturing, services and infrastructure.

• The Libyan government should review its policy in order to attract more FDI and facilitate the entry of multinationals. The major factor behind this is that the Libyan government has recognized the importance of multinationals for the development of technology, knowledge and the economy, but has not facilitated their entry into Libyan markets.

References


