

Impact of Institutional Quality on the Attractiveness of Foreign Direct Investment

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Received August 14, 2014; Revised August 25, 2014; Accepted September 01, 2014

Abstract The purpose of the paper is to investigate the factors that encourage and inhibit FDI flows to countries in the Middle East and North Africa (MENA). Previous studies on the effect of the institutional quality on the attractiveness of Foreign Direct Investment have produced mixed results. In an attempt to explain these ambiguous results, this study investigates the impact of the institutional quality on the attractiveness of Foreign Direct Investment by taking into account the role of the transparency in each country. However, recent research suggests that for countries to fully benefit from openness strategies the functioning of institutions might be crucial. Using the fixed effects models on the panel data of 8 countries selected of the developing countries in the Middle East and North Africa (MENA) over the period 1996 to 2008, the results of this estimation indicate the quality of the institutional environment which presents itself as a relevant factor in the attraction of FDI and the indicators of corruption and regulatory quality have a negative influence on FDI while the indicator of the effectiveness of public action has a positive influence. In this article FDI flows to MENA are investigated, which adds value to the accumulate knowledge of business environments in other regions in the developing.

Keywords: *institutional quality, FDI, corruption, MENA*

Cite This Article: Nedra Baklouti, and Younes Boujelbene, "Impact of Institutional Quality on the Attractiveness of Foreign Direct Investment." *Journal of Behavioural Economics, Finance, Entrepreneurship, Accounting and Transport*, vol. 2, no. 4 (2014): 89-93. doi: 10.12691/jbe-2-4-2.

1. Introduction

Foreign direct investment (FDI) is considered by multinational corporations (MNCs) as one of the main factors in the development process for many countries.

MNCs have been closely related to high technologies, management techniques and marketing strategies (Dunning, 1993). Besides, they employ and train a great number of workforces (Markusen, 1995) and undertake their substantial efforts (Fosfuri et al., 2001). If they have set up a subsidiary in host country, some of the advantages linked to MNCs may be turned to local company, leading to the expansion of the domestic economy. For example many changes in FDI laws took place between 2000 and 2008. Consequently, the FDI inflows increased rapidly in the past decades. According to UNCTAD (2001, 2009), global FDI inflows went up from \$57 billion in 1982 to \$1271 billion in 2000 and reached a peak of \$2099 billion in 2007. Indeed, over the past few decades the growth rate of world FDI has gone beyond the growth rates of both world trade and GDP. However, FDI inflows are not the same across countries since few countries are able to attract more FDI than the others.

In order to have, an accurate understanding of the nature of FDI, several studies have examined the link between FDI and its determinants. Many important factors have been taken into account for the FDI inflows which

includes market size (Ramirez, 2006; Quazi, 2007), quality infrastructure (Asiedu, 2002), openness to trade (Ang, 2008; Fedderke & Romm, 2006), and human capital (Glass & Saggi, 2002, Noorbakhsh et al., 2001). But few studies have focused on the link between institutional quality and FDI flows (Ali et al., 2010; Busse & Hefeker, 2007).

Three major reasons justify that the quality of the local institution is seen as a main precondition for attracting more FDI inflows. Firstly, good institutions increase productivity thus attracts foreign investors. Secondly, in a bad institutional environment corruption affect investment (Wei, 2000). Thirdly, FDI is risky to uncertainty and therefore affect investment negatively.

2. Literature Review

2.1. Brief Review of the Importance of FDI

Foreign direct investment is an investment made to get a durable management interest (normally 10% of voting stock) in a business firm set up in a foreign country (World Bank, 1996). FDI can be classified into two types: "green field" investment, or "mortar and brick" investment, as well as merger and acquisition (M&A), which entails the acquisition of existing interest rather than new investment.

Formerly, the role of foreign direct investment (FDI) has been important for developing countries and less developed countries. In fact, it rose rapidly during the late 1980s and the 1990s. For example according to the UNCTAD database, FDI flows to less developed countries have been multiplied by 7 between 1991 and 2000, while the stock of FDI has been multiplied by 5. The inward FDI flows to less developed countries globally increased again by 52% between 2001 and 2005. Such a high growth is unprecedented. According to the World Bank (2007), global FDI flows reached a record of 1.1\$ trillion in 2006 and there has been a continuing rise in FDI inflows to developing countries. In recent years, FDI outflows from large developing countries are also on the rise. For example, since 2004 FDI flows from India into the United Kingdom have exceeded flows from the United Kingdom to India. This evolution and changing patterns in world FDI flows has been linked to a shift in emphasis among policymakers in developing countries to attract more FDI. Nowadays, the total FDI stocks represent more than 20% of the global GDP. The rapid growth of FDI and its overall magnitude had led many studies to deal with the relationship between FDI and the economic growth. While the explosion of FDI is unmistakable, the growth effects of FDI still remain, both theoretically and empirically, controversial.

2.2. Review of Determinant of FDI – The Role of Institution

The complexity of the economic phenomena has led to the increased efforts of the theoretical and empirical research, justifying the wide range of assumptions and the explanatory models. The FDI determinants are factors which have a significant impact on the countries that act in the implementation of attractiveness policies, giving more consideration to the most significant variables. Economists (Lipsey, 1999) (Tuman and Emmert, 1999) (Love and Lage Hidalgo, 2000) (Charkrabarti, 2001) argue that the most significant determinants of FDI are: market size, macroeconomic factors and the stock of capital. (Helpman, 2006) added a new generation of the theoretical work to a better understanding of the phenomenon of FDI, taking into account the organizational choices of MNCs and the already used characteristics of sectors and contracts, which result from the opportunities and the institutional quality offered by the host country.

According to the IMF, these measures contribute significantly to explain the differences in GDP per capita between the developing countries. Some studies have focused more specifically on the attractiveness of countries as measured by inward direct investment. Stein and Daude (2001) studied, in the case of Latin America, the relationship between FDI and the summarized measure of the quality of governance discussed above. According to them, there is consequently an improvement of the standard deviation (SD) of the indicator which is associated with all things being equal (that is to say, after taking into account the effect of the traditional FDI determinants such as GDP per capita or taxation of capital), and an increase of 130% of the stock of Foreign Direct Investment.

In his article, Ghazouani Kamel (2004) analyzed the determinants of the net FDI flows. Its theoretical

framework is based on the concept of the institutional adaptation to the FDI; he says that FDI is less determined by the fundamentals of the institutional variables, namely policies, laws and their applications. The concept of adaptation of the FDI is tested in an econometric study of data PANEL through economies which represent 37 countries of PECO and MENA regions. The assumption is that, policies that directly or indirectly increase the FDI inflows are most effective when they are planned and executed in a favorable institutional framework for the FDI.

In summary, the countries where we invest the most are those which are best managed. In addition, on the same a panel of the developing countries, Wei (2000) shows that corruption is a significant foreign direct investment break.

3. The Model, the Data, and the Estimation

In our study, we seek to establish a relationship explaining empirically the inward FDI flows that are related to various traditional economic determinants, while highlighting the role of the institutional environment in attracting the FDI.

Considering the small number of time series data, this study proceeds by using data panel, pooling 8 members of MENA for the period 1996 - 2008. The following general specification of data panel has been adapted:

Model:

$$(\text{FDI})_{it} = \delta_{it} + \beta_1 (X / \text{GDP})_{it} + \beta_2 (\text{POP})_{it} + \beta_3 (\text{OPEN})_{it} + \beta_4 (\text{LGNP})_{it} + \beta_5 (\text{RQ})_{it} + \beta_6 (\text{GE})_{it} + \beta_7 (\text{CC})_{it} + \mu_{it}$$

Where i imply regions and t the time periods

μ_{it} : This is the error term specific to the country and random in time.

δ_{it} : it is a constant, which reflects both the individual and the temporal the effects.

As part of this work, we intend to use the data panel. The use of the panel estimation is necessary given to unavailability of data for a long time and for a large number of countries. Since it incorporates both, the time (t) and space (i), the panel estimation method tend to increase the number of observations and to study the spatial and the temporal trend. When considering a sample panel, the first thing that should be checked is the homogeneous or heterogeneous specification of the data-generating process. In economic terms, the specification test involves determining whether it is reasonable to assume that the theoretical model studied, is exactly the same for all countries or on the contrary is specific to each country. In the first case, a perfectly homogeneous panel is obtained. Otherwise, it should be tested if the elasticity of the different factors is identical or not. If the assumption of the homogeneity of the elasticity of the different factors is rejected, we reject the panel structure; otherwise it will be retained and then it looks in a third step if the coefficients of elasticity have an individual dimension. In the affirmative case, that it is in the case of a total homogeneous structure panel, so a panel model with an individual effect is obtained. In the latter case, the Hausman test allows us to decide if it is used as a fixed effect model or as a variable effect. Indeed according to the Hausman test, the fixed effect model seems to be the

most appropriate for the case of our model. Our basic assumption is that the FDI inflows are much more influenced by the variables of the institutional environment (or governance indicators) and not by the generic variables advanced by the conventional and traditional FDI theories. We expected strong correlation between variables of the quality of the institutional environment and the influx of foreign direct investment by the econometric test of our model. As part of this work, the different types of the above exposure tests were carried out through the use of E-VIEWS 6 software.

4. The Sample Selection

The study period in the context of this work is 13 years, from 1996 until 2008.

The selected sample consists of eight developing countries belonging to the Middle East and North Africa (MENA) which are classified by the World Bank with low and middle income.

The choice of these countries is not limited only to the common availability of data, but there is a similarity in terms of the GDP per head in these countries. The choice of our sample was also dictated by the following observation: our research on the one hand, emphasizes three major factors of poor performance:

- i) the small size of local markets and the lack of real economic integration;
- ii) changes in the scenario of the international competition;
- iii) economic and trade reforms in the MENA region have been especially slow and inadequate.

5. Results and Discussions

The results of the estimation given by the appropriate econometric software (Eviews) are as follows:

Table 1. The determinants of foreign direct investment (FDI): Fixed Effects estimator

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	-4.196455	5.203591	-0.806454	0.4202
RQ	-2.694309	0.497285	-5.418039	0.0000
GE	3.932998	0.645036	6.097335	0.0000
CC	-2.831970	0.483101	-5.862064	0.0000
X	-0.327297	0.025231	-12.97226	0.0000
POP	0.035401	0.007474	4.736527	0.0000
OPEN	0.401387	0.027160	14.77879	0.0000
LGNP	0.231271	0.473528	0.488400	0.6254

It is summarized by the following equation:

$$\begin{aligned}
 (\text{FDI})_{it} = & -4.196455 - 0.327297 (X / \text{GDP})_{it} \\
 & + 0.035401(\text{POP})_{it} + 0.401387(\text{OPEN})_{it} \\
 & + 0.231271(\text{LGNP})_{it} - 2.694309(\text{RQ})_{it} \\
 & + 3.932998(\text{GE})_{it} - 2.831970(\text{CC})_{it} + \mu_{it}
 \end{aligned}$$

R2 = 0.417

DW = 1.35

F-statistic = 41.80265

The analysis of the above results shows that: All variables have the expected signs except the ratio export/GDP (X / GDP) as an indicator of abundance of the

natural resources in the host country which has significantly a negative sign, thus the FDI is negatively correlated with export. The theoretical analysis of the impact of multinationals on foreign trade of the original and host countries reveal two types of effects: the effects of substitution and complementarities. Substitution effects emphasize the negative impact on the FDI flows between two countries that have both a bilateral trade between the original and the host countries, and trade relations between these two economies with the rest of the world. Conversely the effects of the complementarities include the positive impacts that the same FDI can have on trade between the original countries and the host country, as well as trade relations with the rest of the world. So if it is a horizontal investment, the FDI and export with a substitution relationship, therefore the relationship between the two will be negative. If it is a vertical investment, then there is a complementary and a positive relationship between the FDI and export. This result affirms that the ambiguous effect of the FDI on the current account shows that the impact of the FDI coming in the current account of the country varies depending on the purpose of the investment. When a foreign company is the local market (horizontal FDI), exports are zero or very low, and the effect on the current account is generally negative. However, in the case of the FDI taking advantage of the lower costs and the forward export (vertical FDI), imports of inputs is offset by exports. For this, we can say that the countries of the MENA region attract many FDI horizontal types which make them very low or zero exports and it will have a negative impact on its current account.

The result of the estimation presented in the Table 1 is the following:

In fact the total population variable (POP) as an indicator of market size has a positive sign with a significant value; this finding is consistent with the theoretical advances which provides market size that a significant role in the drainage of foreign capital, because the major markets have an input supply and an increased demand for products and allow the economies of scale (K Ghazouani 1997). This is an important factor in the investment decisions because of the high demand and the possibility of the economies of scale (Frikha, 2005). This factor is considered as one of the main criteria for the location of foreign investment in the Middle East and North Africa.

In deed (OPEN) is an indicator of the degree of openness of the country to international trade. It is calculated by the sum of exports and imports of goods and services that are relative to the GDP. As expected, this variable has a positive sign with a statistical significance. The significance of the coefficient for this variable justifies its important role in determining the FDI flows. This stipulates that the countries of the MENA region have open on the external world and engage in economic reforms to improve economic growth and attractiveness towards foreign investors.

Gross national product in logarithm (LGNP) as an indicator of economic development, in accordance with what is expected, the sign of this variable is positive, surprising the positive impact of this variable on the attraction of FDI has already been shown in the literature written matter.

However, this variable is not statistically significant. The low significance of this variable can be explained by the existence of other factors that are crucial for foreign investors as institutional factor. This result supports the conclusions emerged from the study of Wilhems and Witters (1998) show that FDI flows are less determined by fundamentals by institutional variables.

Regulation Quality (RQ) as an indicator of the quality of regulation which measures regulatory barriers to functioning markets. The estimation results show a negative sign of this variable with a value statistically significant. This is in line with expectations and shows the important role played by the quality of regulation in attracting FDI. From an empirical point of view, the impact of the quality of government regulation of business on FDI was discussed by Busse and Groizard (2006). Through five indicators in the Doing Business database and applying the analysis to a sample of 89 countries, Busse and Groizard prove that economies with high standards of regulation (as measured by indicators used Account) established relatively less benefited from the presence of multinational companies. Their research support the idea that international trade and foreign investment are only stimulate growth in countries that have "better" institutions and low levels of regulation. The implications of this study are remarkable. As pointed out by the authors: "Any attempt by the government to attract foreign capital in the form of direct investment by offering special tax breaks are not likely to get positive results for FDI attraction but can contribute to higher growth rate high "(Busse and Groizard, 2006:21).

Government effectiveness (GE) as an indicator of the effectiveness of policy measures the competence of the state bureaucracy and the quality of public services. Statistically, this variable has a positive sign with a very significant value, which we leave to believe that the effectiveness of public policy is a very important factor in attracting FDI flows in MENA countries. Empirically from recent studies Bénassy-Quéré and all (2005) explored the role played by the institutional environment for FDI, using various econometric techniques (including the instrumental variable regression). The authors provide ample evidence to support the theory that institutions are important regardless of the level of development of the country (estimated GDP per capita). The results of this research can be summarized as follows: efficiency of the public sector at large is an important determinant of FDI. This includes tax systems, ease of starting a business, lack of corruption, transparency, contract law, security of property rights, the effectiveness of the justice and prudential standards.

Control of corruption (CC) as an indicator which measures the use of the prerogatives of power for personal gain, in accordance with what is expected, the sign this

variable is negative with statistical significance. Foreign investors seem to be interested in legal transparency and impartiality of institutions that guarantee the smooth running of their business. This confirms our theoretical findings which state that the transparency of the host country is critical and important in the eyes of foreign investors. Empirically, Wei (1997a), through cross-sectional data of bilateral FDI, showed that increasing the level of corruption in the host country negatively affects the entry of FDI. The author concluded that in the long term, corruption reduces FDI inflows. The same result has been found by Hines (1995) who stated that corruption deters foreign investors and is a barrier to investment.

Moreover, according to Egger and Winner (2005), corruption gives multinationals transaction costs through the payment of bribes, kickbacks and waste of resources. This effect highlights the decline to invest in countries where corruption is rife. Both authors add that corruption has a form of pressure on foreign investors, which negatively affects their incentive to invest. Rose-Ackermann (1999) stated that corruption affects the productivity of public goods such as infrastructure, thereby reducing the attractiveness of countries for FDI and reduces the profits of multinationals. Similarly, Habib and Zurawicki (2002) identified the relationship between corruption and FDI of 89 developed and developing countries in cross section as negative. Both authors concluded that corruption tends to prevent the entry of FDI. Empirical data comparisons between countries seem, in fact, indicate that corruption significantly affects private investment and economic growth. Regression analysis shows that countries that reduced corruption and increased from 6 to 8 index ranging from 0 to 10 will increase by 4 percentage points in the rate of investment and a half percentage point annual growth its GDP per capita. According to Wei (1997b), corruption acts as an arbitrary tax. The random nature of corruption involves additional costs because the cost of looking for those for whom the pots of wine should be added to the costs of negotiation and payment. Also, bonds obtained by the payment of bribes, kickbacks, could be violated if the corruption is decentralized.

6. The Limitation of Our Estimation

Almost all variables are significant because (controls and interest) we cannot show the importance of institutional variables as fundamental to attract the FDI. In the table below, there is only a regression in terms of the basic variable (Model 1: M1). For the rest of the regressions, they are integrated whenever one of the three governance indicators based on data KAUFMANN

Table 2. The integrated whenever one of the three governance indicators based on data KAUFMANN

	M1	M2	M3	M4
X/GDP	0,136(-1,489)	0,000(-12,974)	0,000(-13,566)	0,000(-12,972)
POP	0,005(2,777)	0,000(3,9767)	0,000(3,843)	0,000(4,736)
OPEN	0,000(14,007)	0,000(15,7323)	0,000(15,863)	0,000(14,778)
LGNP	0,199(1,283)	0,125(1,534)	0,097(1,657)	0,625(0,488)
KAUFMANN				
RQ		0,000(-6,499)		
GE			0,000(3,481)	
CC				0,000(-5,862)
R ²	0,352	0,383	0,392	0,417

The above results are important because they confirm the existence of a close relationship between the quality of governance and FDI. We note that when we add the governance variables Kaufmann, R² pass 0.352 to 0.383% with the introduction of the indicator of regulatory quality (RQ), 0, 392% with indicator the efficiency of public governance (CG) and finally to 0.417% with indicator control of corruption (CC). The corresponding estimated coefficients are statistically significant and have the expected signs. These results corroborate those obtained by Kaufmann et al (1999) and Knack and Keefer (1995) show that governance indicators are relevant factors of economic growth in the long term. This allows concluding that the determinants of good governance, state capacity to effectively manage resources and to formulate and implement policies and regulations of quality largely explains the long-term economic performance of nations.

7. Conclusion

To summarize our results we can say that the regression analysis shows that the majority of the explanatory variables are actually crucial in attracting FDI inflows. The main purpose of our empirical application was to test the impact of variables that reflect the institutional quality (the quality of regulation, the effectiveness of public action and control of corruption) and to what extent they can determine in advance the FDI inflows. This was confirmed in our empirical study that allowed us to show the existence of a close link between the quality of institutional indicators and FDI for 8 countries in the MENA region between 1996 and 2008. Our main empirical results suggest that the quality of the institutional environment, presents itself as a relevant factor in the attraction of FDI so that the indicators of corruption and regulatory quality have a negative influence on FDI, by cons, the indicator of the effectiveness of public action to a positive influence.

Table 3. Countries in the Sample

Tunisie	TUN
Egypte	EGY
Jordanie	JOR
Maroc	MAR
Israël	ISR
Turquie	TUR
Lebon	LEB
Syrie	SYR

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