Location related determinants of Foreign Direct Investment in Yemen: Dunning’s Eclectic Paradigm perspective

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Abstract: This paper particularly is concerned with determining and estimating factors influencing Foreign Direct Investment (FDI) in Yemen. The paper is based on the location related perspective, Dunning’s Eclectic Paradigm Model. The paper aims to explore the determinants of the inflows and performance of FDI in Yemen by using primary data, reports on an empirical study based on 70 companies that have conducted FDI in Yemen. The simple and multiple regression models are used for data analysis and test hypotheses for this study. The Statistical Package for Social Science (SPSS) version 18.0 was employed to achieve the study’s objective. Yemen, like most of other developing countries, has made substantial changes in all aspects related to the attraction of FDI. In that respect, we performed whether the institutions and managerial rules, investment incentives, and geographical location and economic agglomeration have influenced the inflows and the performance of FDI in Yemen. However, Yemen among other countries in West Asia region still suffers from relatively abysmal and disappointing record of FDI. It is found that from the location related factors perspective, Yemen hasn’t reached the point to be an attractive location for FDI.

Key words: Yemen, determinants of Foreign Direct Investment, institutions, incentives, geographical location, economic agglomeration.

INTRODUCTION

In recent years, emphasis has been put on the attraction of the Foreign Direct Investment (FDI) that has become a significant driver in the globalization process. Over the last decade it has grown at least twice as fast as trade. Moreover, it is recognized as one of the key factors for economic growth and wealth that became an important growth factor, especially in developing countries, since it does not create debt obligations and represent a long term commitment and long lasting production asset (Al-Iriani and Al-Shamsi, 2007: p. 4; Osabutey, 2007: p. 1).

Besides, FDI creates opportunities and helps developing countries to achieve sustainable development, on one hand, and it provides receiver countries with new technologies, non volatile long-term capital, employment, higher working standards and entrepreneurial ability on the other hand. Moreover, it builds strong economic links between industrialized countries and developing countries, and also among developing countries themselves. (Erdal and Tatoglu, 2002: p.1; Al-Rabeei, 2005: p. 1).

On the contrary, FDI needs stable environment, transparent, predictable and non-prejudiced business climate as a prerequisite in order to occur. Consequently, Yemen among other countries recognized the importance of FDI in enhancing the growth and development ratios of their economies, which leads them to open their doors and welcome the investors from all around the world by offering specific incentives to attract FDI.

The paper is therefore organized as follows. Section 2 presents an overview of the FDI trends and distribution in Yemen. Section 3 discusses the literature reviews of the theory undertaking for this paper. Whereas, theoretical framework and methodology are discussed in section 4. The empirical results are presented in section 5, and concluding remarks are contained in section 6.

Overview of FDI in Yemen:

FDI Trends:

According to the literature, It is clear that foreign investment flows and movements around the world take...
one of the following types, first; the flow to outside a country (outflow), second; is the flow to inside a country (inflow). Along with the FDI flows to West Asia from developed countries, there was also an increase in such flows from some of the developing countries as well. Yemen has not been a major recipient of FDI inflows, from either source, even though some important Multi-National Enterprises (MNEs) have been presented since the discovery of oil in the early 1980s.

However, since the last twenty years the government has been trying to rationalize the regime governing FDI inflows. With the start of privatization of public sector activities in Yemen since the middle of 1990s, a gradual surge is taking place in such flows. The inflows are expected to increase further with growing concern and consciousness on part of the government, resulting in positive measures, incentives and opening up of the economy and its various sectors for the activity of MNEs.

Thus, in order to give a clear view of the FDI in Yemen we will explain the inflows of FDI within three different period of time as shown below. Moreover, due to the inconsistency of the data issued from different sources, this study extensively uses the data issued by the United Nations Conference on Trade and Development (UNCTAD) and the World Bank (WB).

First; the Period of Post-revolution and Pre-unification (1962-1990):
For the first eight years the government of the Yemen Arab Republic (YAR), due to the civil war after the revolution in the 1960s, could not attract any foreign investors. However, in 1970 the inflows of FDI as illustrated in Table (1) amounted to US$12.6 million and increased to US$33.9 million in 1980, but in 1990 as a result of the merger of both economies as well as to the political conflicts around the world particularly in the Middle East region (collapsing of the Communism and the Gulf War II), the inflows FDI was negatively amounted to US$ - 131 million.

Nonetheless, the discovery of the oil and gas resources in the YAR were key to attracting foreign companies to Yemen’s poor market early the 1980s, and give the opportunity for Yemen’s government to adopt itself to new world business environment, and open its market widely for MNEs.

Table 1: FDI inflows to YAR and PDRY 1970-1990 (US$ million).

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</thead>
<tbody>
<tr>
<td>YAR</td>
<td>12</td>
<td>33</td>
<td>40</td>
<td>30</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>8</td>
<td>14</td>
<td>-131</td>
</tr>
<tr>
<td>PDRY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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On the other hand, the People Democratic Republic of Yemen (PDRY) since the revolution in 1963 had implemented a communism system where it did not allow any inflows of investment. However, in the mid of 1980s the ruling party implemented an open economic policies in order to cope with neighbouring countries such as YAR, Saudi Arabia and Oman, by allowing the inflows of FDI, which amounted for US$1 million, US$8 million and US$5 million for the years 1986, 1987 and 1988 respectively.

Second; the Period of Post-unification and Pre-civil War (1991-1994):
Which can be described as the transitional phase, where Yemen despite of its interior political conflict as well as economic shocks as a result of Yemen’s position during the Golf War II, had witnessed acceptable inflows of FDI as illustrated in Figure (1), whereas in 1992 it amounted to US$583 million compared with that in 1990 to US$ - 131 million and US$714 million, US$897 in years 1992 and 1993 respectively. However, as a result of the civil war in 1994 FDI inflows dropped sharply to US$11 million.

Third; the Period of Post- Secession war (1995-2009):
When Yemen was still facing major economic problems making it difficult to finance a strategic development project related to the improvement of the investment infrastructure.

Moreover, the past unstable situation Yemen suffered from, as well as the high competition that Yemen faces in terms of offering suitable opportunities to attract the foreign investors comparing with countries in the region, has restricted Yemen from being a major recipient for FDI among the countries in the Arab and West Asia regions.

Hence, as a result of the unification of both sides of Yemen in 1990, the newly formed government established the General Investment Authority (GIA) in March 1992, and in 1993 the Yemen Free Zones Public Authority (YFZPA) was established. That aimed to create a stable situation and diversified investment opportunities that help to attract more FDI inflows to Yemen. According to UNCTAD FDI flows to Yemen, as illustrated in Figure (2), had recorded US$ - 226 million in 1998, compared with US$ - 218 million in 1995, which resulted from the secession war in the year 1994.
As a result of the data shown above, it is clear there was a minor improvement on the FDI inflows to Yemen which amounted to US$ - 218 million (1995) and US$129 million (2009). This was a result of a severe fluctuation in the total flows of FDI during the period (1995-2009), where the extent of these fluctuations was from US$ - 328 million to US$1,555 million. Thus, compared to the major recipient countries in the region, this low amount of FDI inflows seems to have been lower mainly due to political instability, inadequate and poor infrastructure facilities, and underdeveloped domestic market, which according to Festervand (2006: p. 78) limited the Yemen market opportunities.

As a consequence, the current presence of international firms in Yemen, according to the GIA is very little. However, Arab companies have an acceptable presence mainly because of geographical proximity, whereas by the year 2007 developed countries were the major source for the FDI flows to West Asia (UNCTAD, 2008: p. 54). However the major sources of FDI flows to Yemen as illustrated in Table (2) (see appendix A) relied on few countries notably Saudi Arabia, U.A.E, Iraq, and Jordan.

Therefore, based on the data showed in Table (2), it can be argued that investment environment in Yemen is still unable to attract and retain the major foreign investors to invest in the region. This was confirmed by UNCTAD in its study that aimed to gauge the underlying attractiveness of a country for international investors (the inward FDI index) which was measured for two periods (1988-1998) and (1998-2000) where Yemen among the 137 countries in the second period ranked the last country in the index at value of - 0.8 (UNCTAD, 2001: p. 255).

**Distribution of FDI:**

It is well known that among other factors, making profits is the most important factor that leads MNE’s to expand their operations by investing abroad. Therefore, this kind of investment always goes to the regions and to the fields which yielded the highest expected returns. Even though, some cases indicate higher proportion of risk such as the investing in the oil industry in such countries.
Thus, Yemen government, since applying its new open economic strategy and establishing the GIA has exerted special efforts to improve the investment environment in order to encourage local investors, and attract Arab as well as the foreign investors to Yemen. Therefore, by the completion of the first year of the establishment of the GIA in 1992, the total number of the registered investment projects as shown in Table (3) (see appendix B) reached 202 projects. Whereas by the year 1997 the number of the investment projects registered at the GIA reached the highest level since 1992 which figured by 501 projects.

But, according to the data shown in Table (3), there appears to be a big difference between the total number of projects registered at the GIA and the total number of implemented and under implementation projects, which confirms that there are factors playing a major role in delaying the implementation of the registered investment projects and sometimes the abandonment of the implementation.

Moreover, at the distribution of investment projects those are registered and licensed by GIA according to their economic sector for the period 1992-2007 are mainly concentrated in the industrial, service, tourism, agricultural and fishery sector respectively (Al-Girbi, 2004: p. 6; CSO, 2006 & 2007).

More specifically, the FDI inflows and outflows to and from West Asia region have seen an improvement in the last decade. FDI inflows had risen by 12% in 2007 and recorded US$71 billion. On the other hand FDI outflows from West Asia increased to reach US$44 billion in 2007. Yet FDI inflows to Yemen were very small compared to the FDI outflows from West Asia region as shown in Figure (3) (UNCTAD, 2007: pp. 53).

![Fig. 3: Comparison between the FDI inflows and outflows to and from West Asia countries and FDI inflows to Yemen 2000-2009 (US$/ Million)

As a result, Yemen despite of the magnitude changes that has been made in order to improve its investment climate yet to become a major recipient for the FDI that inflows to the region nor that the FDI outflows from the countries within the West Asia region.

**Literature Review:**

Countries’ ability to encourage and attract foreign investment is determined by providing the appropriate investment climate, which helps investors to make a decision to invest in a particular country, which leads to increase the ratio of foreign investment flows. Therefore, the process of the inflows of FDI to the host countries or releasing from the parent country depends on the provision of many factors in each of the parent country and the host country, which lead to the occurrence of several important questions such as What, Why, Where, When and How to invest?

Consequently, in order to understand the mechanism of these flows, countries need to find out and analyse the factors affecting these flows by answering above mentioned questions which resulted in the development of numerous theories in the field of international capital movements and FDI in particular, that aimed to model the investment decision and explored the most important determinants.

Perhaps, the most remarkable achievements is what was delivered by Dunning (1981), who introduced the eclectic paradigm approach, which attempts to explain why firms choose to engage in FDI, and to illustrate the different forms of international production as well as the selection of a country for FDI (Holsapple et al,
Moreover, it focuses on the sources of competitive advantage that allow a firm to compete abroad defined by the locational choices that firms make, and the mode of entry into foreign market (Erdener and Shapiro, 2005: p. 412).

In addition, Dunning eclectic approach consists of an attempt to analyze the “Why”, “Where”, and “How” of FDI activity which must be satisfied before engaging in cross border activities in terms of the following advantages: **first; the Ownership advantages of a firm (O):** Those are specific to a particular firm and that enable it to respond directly to the international competition as well as to take advantage of investment opportunities abroad using their existing competitive advantages to establish affiliates abroad. This is referred to as “asset exploiting”, which asks the question; Why go abroad? And it looks at tangible assets, factor endowments such as natural resources, manpower and capital, and intangible assets such as knowledge, brand names and organizational skills, technological capacities, marketing techniques or product innovations. **Second; the Location specific advantages (L):** are those advantages specific to a country, which dictate the choice of production site and, it addresses the “Where” question; Where to locate? And it includes issues such as market size, physical and political infrastructure, education levels, effective and efficient transportation and communication systems, low-cost labour and well skilled labour. **Third; the Internalization advantages (I):** determine whether foreign production will be organized through markets (licensing) or hierarchies (FDI), it addresses “How” question, the “How to go abroad?” (Maskus, 1997: p. 9; Galan and Gonzalez-Benito, 2001: pp. 269-271; Erdener and Shapiro, 2005: pp. 418-420; UNCTAD, 2006: p. 143; Griffin and Pustay, Ch.3. p. 3).

In addition, Dunning argues that the following three conditions must be adhered to if a firm is to engage in FDI (Dunning, 1988: p. 2; Dunning, 2002: p. 58; Madhok and Phene, 2001: p. 2): first, the firm must have some ownership advantage with respect to other firms; these advantages usually arise from the possession of firm-specific intangible assets. Second, it must be more beneficial for the firm to use these advantages rather than to sell or lease them to other independent firms. Third, it must be more profitable to use these advantages in combination with at least some factor inputs located abroad, otherwise foreign markets would be served exclusively by exports.

More Recently, Dunning (1993: p. 79) added a fourth firm specific condition to the previous three proposed in 1979: Given the configuration of the OLI advantages facing a particular firm, the extent to which the firm believes that foreign production is consistent with its long-term management strategy.

As a result, the eclectic paradigm approach is considered as the closest theory to the subject of this paper, and where the theoretical framework was developed based on location-related determinants of FDI, that consist of the factors that are explained below.

**Theoretical Framework and Methodology:**

**Theoretical Framework:**

This study, based on the literature review, discussed various factors that may act as a locational determinant for FDI inflow. Therefore, the Republic of Yemen has been chosen among the LDCs that is the dire need for FDI inflows to capitalize on its sizable natural resources (UNCTAD, 2008: p. 260).

Hence, a conceptual model has been developed in the current study, which aims to test the relationship between the FDI inflows and their performance, as well as other factors that determine them as illustrated in Figure (4).

**Fig. 4:** Theoretical Framework.
In view of that, FDI in Yemen is selected as a dependent variable, which will be measured by the company sale growth average per year from 2007-2009. Whereas, an attempt is made to determine the role of the institutions and managerial rules, investment incentives, and geographical location and economic agglomeration influenced the inflows and the performance of FDI in Yemen. These factors have been selected as independent variables.

**Definition of Variables:**

Among many definitions for FDI, the World Bank (WB, 2010) defined FDI as “the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise, operating in an economy other than that of the investor and can be further developed as the sum of equity capital, reinvestment of earnings, other long term capital, and short-term capital as shown in the balance of payments in that economy.

**Institutions and Managerial Rules (IMR):**

The lack of effectiveness of the government institutions in terms of administrative and managerial disability that caused by the presence of many factors such as high level of corruption and bribery, functioning of bureaucracy, inefficiency of justice and prudential standards, lack of transparency; all these factors are regarded as the major repellent factors that drive away the investment in general and lead to instability and confusion conflict of policies. These drive the national projects and schemes in opposite direction or even repel unconsciously for foreign as well as local investments (Dumludag et al, 2007: p. 2).

This was also confirmed by Shareef (2003: p. 472) who argued that administrative problems in developing countries have various dimensions which can be classified into two main categories namely; the independent on the governmental administrative sector to play the primary role in economic development, and the failure of the government institutions to fulfil this role. Therefore the first hypothesis of the study is formulated as below:

$$H_1: \text{Institutions and managerial rules of Yemen as a host country have a positive effect on the FDI flows and performance.}$$

**Investment Incentives (IINC):**

On the other hand, incentives offered by the host countries are becoming increasingly important tools that designed to attract inward investments from other countries. As a result many countries have adopted new measures to attract FDI which vary from country to another, such as tax holidays, tax concessions, exemptions from duties on imports of part and components and export duties, establishing of especial economic and free trade zones. Tsai (1991: pp. 276 and 282) argues that fiscal incentives offered for FDI by most LDCs are aimed to upgrade technology and to speed up economic development. Hence, the second hypothesis is formulated as below:

$$H_2: \text{Investment incentives offered by Yemen as a host country have a positive effect on the FDI flows and its performance.}$$

**Geographical Location and Regional Agglomeration (GLEA):**

This factor plays an important role in attracting MNCs wishing to expand and investment in countries that are characterized by the attractive location, which has a strategic geographic position among major markets, or a location that sits in a major gateway for roads, airports and waterways and sea passages, as well as the geographic proximity to the major FDI exporter countries.

Moreover, countries started in providing competitive investment environment, however, and as a result of the increasing of the international competition, countries tended to form regional blocs, which unites more than one country in all areas of economic, human, financial and etc. Whereas the importance of this form has increased when these countries are geographically contiguous and have a lot of common interest. Therefore, there are many forms of the economic integration such as Free Trade Area, Custom Union, Common Market Economic Union, and Economic Integration (Al-Najjar, 2000: p. 51). Thus, the third hypothesis formulated as below:

$$H_3: \text{Geographical location and economic agglomeration of Yemen as a host country has a positive effect on}$$
the FDI flows and performance.

Data and Methodology

A total of 70 companies were obtained from the database of the Ministry of Industrial and trade and the General Investment Authority in Yemen. A self-administered questionnaire was designed and distributed and filled out by respondents who were asked to rank their answers according to their agreement or disagreement regarding the given statements based on a five point Likert scale.

Out of 210 distributed questionnaires, only a total of 89 questionnaires were returned (42 per cent of response rate was achieved). Only a total of 33 companies (47 per cent) of the total targeted companies returned the questionnaire.

It is found that a multiple linear regression is the most suitable model in studying the case of Yemen, which can determine the relationship between the FDI and its independent variables (see figure 4). As a result, this model will use the variables listed in Figure (4), and defined above. Also it can state the coefficient and the tools to make sure whether it is significant or not in this case. Thus, the general form for this model is as bellow:

\[ Y_i = \beta_0 + \beta_1 \text{IMR} + \beta_2 \text{IINC} + \beta_3 \text{GLEA} + \varepsilon \]

Where: \( Y \) represents the FDI variable. \( \beta_0 \) is the constant of the model, and \( \beta_1, \beta_2, \beta_3 \) are the coefficients of the model. IMR are the institutions and managerial rules, and IINC are the investment incentives, whereas, GLEA are the geographical location and economic agglomeration.

Hence, as the aim of this paper is to obtain empirical evidence on the influencing factors on the inflows and the performance of FDI in Yemen, survey was chosen as the most suitable research design. It was applied to the local and foreign staff that working in senior and middle levels that considers being the ones making key investing decisions at the companies that undertake FDI in Yemen.

SPSS package was used to measure general statistics and estimate the coefficients of the regression model that show the significant relations between dependent and independent variables as explained above.

Result Analysis:

Table (4) (see appendix C) shows general descriptive of the variables IMR, IINC and GLEA. These measurements are Mean, Std. Deviation, and standard error. The estimation model bellow explores the relation between FDI as a dependent variable and institutions and managerial rules, investment incentives and geographical location and economic agglomeration as independent variables.

\[
\begin{align*}
\text{FDI} & = -3.483 + 3.731 \text{IMR} + 3.745 \text{IINC} + 2.784 \text{GLEA} \\
T: & = -2.747, 7.872, 5.276, 4.979 \\
P\text{-value:} & = 0.007, 0.000, 0.000, 0.000 \\
& r = 96.0\%, \text{Adjusted } R^2 = 91.8\%, F = 331.047, \text{Sig. } = 0.000
\end{align*}
\]

According to the results listed in the model above, there is a significant relationship between IMR, IINC and GLEA with FDI at 5% significance level (as \( p \) value for all independent variables < 0.05). This means, individually, there is a significant impact of all independent variables on FDI inflows and performance in Yemen. However, as the estimated coefficient of correlation \( r = 0.960 \) shows relatively high partial linear correlation between FDI and its independent variables. While the estimated \( R^2 = 0.918 \) indicating that 91.8% of the variance of FDI is explained by the variance of its independent variables. Thus, the estimated regression is efficient for the prediction due to F test is significant at 5% significance level (\( P \) Value < 0.00).

Hence, and according to the above results we can reject \( H_0 \) and accept the alternative hypothesis of the three independent variables \( H_i, H_2 \) and \( H_3 \). In other words, the study shows that the locational factors have affected the FDI in Yemen for the period of the study (1991-2009).

Summary Marks and Further Studies:

This study has proven that the effect of the location determinants on FDI in Yemen is similar to the majority of studied cases according to the Dunning’s Eclectic Paradigm Model. However, this conclusion does not reject the possibility of other determinants’ impacts on FDI in Yemen. Thus the case of Yemen needs further studies to check all other potential determinants to form a general equation of the determinants of FDI in Yemen.
One of the most difficulties faced by the researchers in accessing the primary data throughout the questionnaire is that many of the managers and high ranking employees of the foreign companies in Yemen were very sceptical in giving any information to the researchers, which has cost a lot of effort as well as financial resources to get the information and data needed. This problem certainly reflects lack of confidentiality level between the investors from one side and the research centres as well as the researchers themselves on the other side.

Yemen government and FDI relevant authorities have to exert utmost efforts to attract FDI from the neighbouring countries and the developed countries as well. In other words Yemen economy needs increasing efforts and legislative works to be an attractive country for the FDI. On the other hand, more development must be done in the promising sectors that can provide the foreign investment with agglomeration and integration tools.

REFERENCES


### Appendix A

#### Table 2: Investment Projects Registered at the GIA by Nationality of Investors (2000-2007).

| Year | Saudi | Emirates | Iraqi | Lebanese | Syrian | Jordanian | Indian | German | British | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Palestinian | Oman | Canadian | Morocc  | American | Algerian | Pakistani | Kuwaiti | Turkish | Chinese | Russian | Jordanian | Indian | German | Egyptian | Pixelated data.
### Appendix C:

**Table 4:** Descriptive analysis for the variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
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</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>-3.483</td>
<td>1.268</td>
<td>-2.747</td>
<td>.007</td>
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<tr>
<td>IMR</td>
<td>3.731</td>
<td>.474</td>
<td>.402</td>
<td>7.872</td>
</tr>
<tr>
<td>IINC</td>
<td>3.745</td>
<td>.710</td>
<td>.345</td>
<td>5.276</td>
</tr>
<tr>
<td>GLEA</td>
<td>2.784</td>
<td>.559</td>
<td>.288</td>
<td>4.979</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: growth_rate*