The Ranking of the OIC Member Countries Based on Factors Influencing Their Inward Foreign Direct Investments

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Abstract

Foreign investments play a significant role in the economy of developing countries. In this article, an attempt is made to classify the member countries of the Organization of the Islamic Countries (OIC) based on the factors influencing their inward foreign direct investments. At first the relevant economic, social and political factors were introduced. Then by using a Numerical Taxonomy Method the OIC member countries were classified. Based on empirical studies, we have selected some of the most important factors (compound & single) influencing foreign investments for the ranking purpose. These factors are: Economic freedom index, the per Capita Number of Tourists, Regionalism index, Trade openness index, Market Size & Economic Stability index. Based on the results, Malaysia is the state with the highest chance of attracting foreign direct investments. Because of her high economic growth rate & the implementation of trade openness policies in recent years, this country has been able to gain the top position vis-a-vis other OIC member states.

As for the countries at the bottom of the ranking such as Libya & Uzbekistan the economic freedom index, as put out by the Heritage Foundation, shows that these countries have had the worst status when it comes to the compound economic freedom index among all the Islamic countries in the past years. Inappropriate policies of the public sectors in controlling financial markets, the goods and services markets, the labor market & the foreign sector have had a negative impact on foreign investments inflows. The results also indicate that among 46 OIC countries Iran is ranked in the 44th place.

Keywords: The OIC member countries, Foreign Direct Investment, Numerical Taxonomy, Globalization and Regionalism.

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1- Introduction

Until a few decades ago, foreign direct investments were considered as imperialist tools by many developing countries and human right activists around the world. Today, however, most countries have comprehensive & detailed plans to attract FDI. In fact, after a period of pessimistic views about FDI in developing countries, today it is observed that FDI is encouraged & welcomed in most of these countries. The pervasive role of the FDI at the macroeconomic level in developed and developing countries has captured the attention of economists in recent years too. As a result, numerous studies have been performed to evaluate the economic and the non-economic consequences of FDI. Different opinions and theories concerning the ramifications of FDI have emerged. Many countries have tried hard to find ways & means to attract more foreign direct investments. Concurrently, the new phenomenon of globalization coupled with regionalism and the formation of regional trade agreements have raised a certain question: What is the role of such regional trade treaties in strengthening foreign direct investments?

2- The Determinants of Inward FDI

The literature examines a large number of variables that have been put forward to explain FDI. In this section we examine these variables and rationalize our focus on a set of explanatory variables used in this paper. Many countries have policies aimed at creating strong incentives for foreign investors who are potentially capable of providing FDI flows. Understanding the determining factors of FDI inflows and unveiling the reasons why some countries are more successful than others in attracting FDI provides policy makers with useful guidance for future policy prescription. According to the World Investment Report of the UNCTAD (2002), 208 changes in FDI laws were made by 71 countries in 2001. Of these changes, 194 (93%) created a more favorable climate in an effort to attract more FDI.

In Table -1 we show the UNCTAD's determinants of foreign direct investments:
In our article, we first review some of the main factors influencing FDI. In doing so, we determine the pre-requisites in the guest countries to attract foreign investors. We then use a Numerical Taxonomy technique and rank the OIC member countries to determine the countries with better conditions for investment by foreign investors.

1- Factors Influencing FDI: The distribution of FDI, its attraction & its impact on the economy of the countries under question depends a great deal on the economic & political situation of the guest country. At this point we introduce the main factors influencing inward FDI to the Islamic countries:

1-1- Gross Domestic Product: One of the factors influencing FDI is the market size of the guest country. Countries with bigger economies offer a better opportunity for foreign investors. This is because bigger markets allow the investors to take advantage of their technology and use this knowledge most efficiently. One of the indices that has been used extensively in the literature and is expected to have a positive impact on the volume of the FDI
inflow is the gross domestic product of the guest country (Nily, 2003 & Thomas 1999)

1-2-The Ratio of Savings to the Gross Domestic Product: This index, which measures the average propensity to save, shows the ability of a country in mobilizing financial resources. Countries with a high ability in procuring such resources have a better chance to attract more FDI. Usually poor countries have low saving rates and as such, they have a hard time to lure in foreign investors (Khan & Malik, 1992).

1-3-Economic Security (Stability) Index: Economic security refers to a situation in which production units can plan long-run projects without having to worry about environmental and social obstacles. In other words, providing economic security will provide a legal, social & political atmosphere in which investment projects & economic activities can be undertaken & finalized without any external disturbances or barriers. In order to be able to rank the Islamic countries according to their economic securities, we will use an economic instability index as a substitute for economic security. Therefore, we need a definition for economic instability. In most cases, economic instability is the result of various and unexpected economic shocks. The higher this index is, the higher would be the risk of economic activities. Most studies performed in this connection by people such as Ibrahim Elbadawi, Klaus Schmidt and James John, show that economic instability is either caused by domestic factors or have their roots outside the borders of a certain country. Thus, different researchers have provided different indices to identify economic instability. One such index is the GDP Instability Index. Another such index is the GDP rate of growth instability index. Since GDP is a measure of economic activities, it seems appropriate to use the GDP fluctuations to measure instability. Therefore, following the work of Blanchard & Simon we use the standard deviation of GDP to measure economic instability:

\[ Vol_{GDP_t} = \sqrt{\frac{Var(GDP)}{E(GDP)}} \]
Globalization Index: Globalization is a phenomenon of recent decades through which bilateral relations among different people of the globe are expanded and the geographic boundaries are weakened. In fact, globalization is the mixing of national economies in the world economy the consequences of which are an increase in the volume of international trade, globalization of the production process and the capital flow. Most of the factors influencing FDI are also part of the globalization index, whether in a compact or detailed form. It needs to be mentioned that regionalism factors are similar to the globalization factors. Therefore, here we discuss the globalization factors along with the regionalism factors. There are different criteria to measure this. As a whole, the globalization factors & its indices can be separated into two groups. First, the factors based on which the globalization of a given country is studied, Second, the globalization of a specific industry (such as agriculture, mining...) or a certain subgroup such as petrochemical industry or certain products such as wheat. These secondary groups may be the subjects of an independent study. For this reason, only the first group is considered here. At this point, we introduce a few of the more important globalization factors. The Foreign Policy Magazine, The Heritage Foundation, The Fraser Institute and other reputable publications have put out these factors.

1-4-1 The Foreign Policy Publication Index: In the early 2001, the reputable magazine of Foreign Policy and the internal consulting firm of A.T. Kearney came up with a globalization index for the first time. This index is made up of the following three key components:

A: The Globalization of Trade with Respect to Goods and Services: The share of every country in the process of globalization depends on that country’s share in the world trade. In fact the growth rate of world trade is the most viable measure of globalization. In order to measure the globalization index, the share of traded goods relative to the total GDP of a country or the share of net export to the GDP or the integration of internal and external prices could be an effective measure of globalization phenomenon.
B: Financial Globalization: Globalization & securing foreign capital have a direct relation. In other words, higher intensity globalization will result in higher FDI. Putting it differently, the volume of foreign investment portrays the position of a country's path to globalization. Therefore, to measure financial globalization, the ratio of FDI and the ratio of capital portfolio to gross domestic product have been used. These two factors measure the economic aspect of globalization (Nadjí, 2003).

C: Globalization of Personal Contacts & the Expansion of Telecommunication Systems: The expansion of the telecommunication networks & the availability & quality of such contacts is also a measure of globalization. Radio and television accessibility by households and people in general is another measure. A scale in this regard could be the per capita number of telephone lines, cell phones, the number of internet users, foreign trips & the number of tourists for a given population (Nadjí, 2003).

1-4-2 Economic Freedom Index: Economic freedom is a movement towards removing public sector controls on financial markets, the goods & services market, the labor market & the foreign sector. A yardstick in this regard is to see how much the market mechanism is allowed to distribute resources.

A: The Heritage Foundation of Economic Freedom: As explained earlier economic freedom is one of the most important factors affecting FDI. The Heritage Foundation computes an index of economic freedom for all countries on an annual basis. This index, which is a combination of several other indices, was first introduced in 1980 by the Heritage Foundation and has been used to rank countries based on their economic freedom annually. As explained by the Foundation itself, the index does not merely cover a list of empirical criteria. Rather, it embodies an array of factors, which have the most impact on economic growth, and covers a vast number of theoretical factors regarding the causes and factors of economic development. According to the people introducing this index economic freedom refers to a
situation in which “there are no obstacles or barriers to the production process, distribution & consumption of goods and services”

The Heritage Foundation index of economic freedom for different countries is based on the value of fifty economically independent variables, which are classified in ten main groups. Based on the information & data of 161 countries for every group of the variables and for every country a score from one to five (based on the degree of protection) is assigned. The mean of the ten groups gives the final score of a given country. The lowest score indicates the maximum economic freedom whereas the highest score means the absence of economic freedom in a country. The factors that make up this index are: the government budget, the level of governmental interference in economic activities, fiscal policies, foreign investments, banking & financial security, wages and prices, intellectual rights & black market regulations.

B: The Fraser Institute’s Index of Economic Freedom: More than a decade ago, Michael Walker, the acting manager of the Fraser Institute & Milton Freedman, the Nobel prize winner in economics set up a number of meetings in order to come up with a good definition & a method for measuring economic freedom. In these meetings reputable people such Gary Backer, Douglass North & Peter Bauer also took part. These gatherings led to the World Economic Freedom Report for the years 1975-1995. Following this report “The Economic Freedom Sight” was set up in which a group of institutions from more than fifty countries started taking up research to identify the best index of economic freedom. And since then up to now annual economic reports on the world economic freedom are published every year on a regular basis. The people preparing this index believe that the main components of economic freedom are “personal choice”, private ownership & freedom of trade. This index, which is a weighted index, contains 21 different variables, which have been grouped into seven different groups each playing a different weight in the final index. Each variable is assigned a number between zero and ten based on the formula

$$\frac{V_i - V_m}{V_{max} - V_{min}} \times 10$$

in which $V_i$ is the value of a variable for country I, $V_{max}$ is the maximum of a variable among different countries & $V_{min}$ is the minimum of a variable among the same countries. Since a bigger number shows higher economic freedom, for variables such as inflation, which have an inverse relation with economic freedom, the following formula has been used:
By calculating the numerical mean value of the 21 different variables, the economic freedom index for a given country, whose value is between zero and ten, is obtained. The closer this index is to ten the higher would be the economic freedom in that particular country.

1-4-3 Trade openness index (TOI): How much home economies take part in the world economy can be judged by the trade openness index (TOI). This index measures the total volume of trade (exports plus imports) of the home country relative to her gross domestic product & it shows how open the home economy is with respect to foreign investments, trade of goods & services and labor movements. Obviously, the more open the home economy is with respect to inflow & outflow of goods and services & capital, the stronger will be the motives for foreign direct investments to take place. Therefore, in evaluating the OIC member states, this index can be utilized to rank them based on their trade openness degree (Nadj, 2003 pp 72-71).

1-4-4 Import Penetration Ratio Index: This index considers import barriers & can be expressed in two ways:
A: The ratio of imports to gross domestic product
B: The ratio of consumers’ goods to total consumption
The ratio of consumers’ goods to total imports could also be an index like the ones in A & B above.

1-4-5 Trade Intensity Index ((X+M)/GDP): The most common index in measuring trade openness is the ratio of a country’s volume of trade (exports plus imports) to her gross domestic product. The biggest advantage of this index is that it is easily computed & the data to compute it for different countries for intra-country studies are available. The problem with this index, though, is that it is incomplete. Other factors such as the area of a country, the factor endowments and the distance between a country and the world markets influence the trade level of a country & hence affect the trade intensity index. To overcome this shortcoming and still be able to use this index as a trade openness index we have to somehow adjust it for non-policy
factors. The next three indices are examples of such adjusted indices (Pirthett, 1996).

1-4-6 Financial Openness Indices: in recent decades, various forms of international capital flows have had high rates of growth. Among these, one can point to foreign investments in securities, bonds, bank loans & stocks. These are called portfolio investments (Nadji, 2003 p.34). This increase in investment & trade could be attributed to the policies aimed at trade & financial openness in different countries around the world. To measure financial openness, indices such as daily volume of foreign currencies circulated, foreign bank reserves, foreign bank assets & the net foreign direct investments and also the private capital flows as a percentage of gross domestic products can be used (Nadji, 2003).

1-5-Regionalism Index: The growth and the completion process of regionalism along with a willingness for globalization in the late 1980’s & the early 1990’s, specially after the difficulties that the Urugua Rounds had experienced gained momentum & forced the evaluation process, particularly at international multilateral relationships, to move from a Nation- State status to political and economic unions and trade blocks. Although, legally the national and the home power centers still have their rights, power & authority and are in fact in charge of their international affairs, however, as regionalism grows & political and economic unions and multinational companies are formed, the influence and the legal power of the national home offices are reduced. We might be able to say that under the present conditions regionalism is the most effective way for gradual opening of national economies to be integrated with the world economy. As a step toward the world economy, a regional economy can lift the custom barriers so the local firms can reach the world markets. And in so doing she can remove the obstacles on the path of transferring capital & the technical know-how within the region and as a whole open new horizons. Actually, we can claim that regional agreements, by removing trade barriers & enforcing common tariff strategies & ......set the ground for efficient production at macro level in regional markets and improve the path for further economic growth. Tariffs and transportation play a major role in
making the produced goods and services competitive in different markets. In regional trade agreements, production costs determine how competitive a certain product is going to be in a certain region. And because of the multilateral agreements among the countries in the region and their closeness to each other these costs could reach their minimum. Therefore, the producers in the region can get a cost edge over the producers outside the region. The out of region producers would face higher producer costs because of tariff and non-tariff barriers and also higher transportation costs since geographically they are further away from the region.

There are different criteria to measure regionalism. These measures are usually similar to globalization measures. In other words, the factors such as free trade, intra-regional investments, product specialization by multi-nation companies and trade barriers removal that contribute to economic integration of the countries in a certain region can also influence the phenomenon of economic globalization (Azarbayejani, 2002). In this article we use the following relation to assess the degree of regionalism:

$$R_j = \frac{X_{ij} + M_{ij}}{X_{it} + M_{it}}$$

Where (Xij + Mij) shows the sum of the exports plus imports of country I with other OIC member states and (Xit + Mit) shows the sum of the exports plus imports of country I with other countries in the world, t.

1-6-The Wage Rate in the Home Country: The findings of studies such as Narula (1997) show that the low wage rates in the home country are not necessarily a decisive factor when it comes to luring FDI. Rather, low wages could also mean low productivity and hence it might not be a positive factor for stimulating FDI. Therefore, in order to measure the impact of the wage rates, we should try to estimate productivity per unit of wage rates. The results indicate that the index of productivity per unit of wage rates with respect to foreign direct investments is significant.

1-7-The Rules & Regulations of the Home Country: Efficient & workable laws guarantee the right to private ownership, minimize trade costs and
create an ideal environment for economic growth. Empirical studies show a strong direct relation between the viability of the rules, the FDI attraction and growth. Among such laws, the law regarding FDI & private ownership rights are especially important.

1-8- The Expansion of capital markets: A precondition for FDI to influence economic growth is the expansion and the development of financial markets. Such developments improve the productivity of resource allocations & bring about more FDI inflows. An important channel for the transfer of FDI contribution to economic growth is through the spread of the technological know-how, which can be obtained along with the FDI flows. A structurally developed financial system is beneficial to the technical advancement through FDI for the following reasons:

A: In assessing investment plans, the expansion of internal financial agencies (banks, capital markets, stock markets, and…) is an indication of the expansion degree of home companies through securing foreign resources.

B: Financial systems in general and financial institutions in particular, are important factors in reducing the investment risk with regard to new technologies.

C: Advanced financial institutions can provide the necessary loans for foreign companies who intend to expand their economic activities in home countries.

1-9-Tax Policies: Tax exemption is an incentive to attract foreign investors. In order to reach high growth rates, developing countries would like to provide foreign investors with strong financial incentives. Some of these incentives are tax exemptions, tax agreement contracts for new investors & tax rebates for investing in building roads, employee educations & other key incentives. Tax incentives are powerful tools that can mobilize foreign investments in an efficient and effective way. Empirical studies show a positive correlation between the volume of foreign direct investments and the after tax rate of return of such investments (Negooy, 2001). Noorani, (1995), by referring to the Yan’s study (1989) explains that tax policies can
influence a company’s decision regarding foreign direct investments in three different ways:

A: The imposition of taxes on income earned abroad influences the net return of investments directly.

B: The imposition of taxes on income generated in the home country affects the net profit of domestic investments & therefore it affects the relative net profit of domestic & foreign investments.

C: Tax policies can affect the relative net costs of foreign funds in different countries.

1-10-The Degree of Economic Development: The level of the economic development with respect to its human capital influences foreign direct investments in the following ways: the level of the home employment of the labor force by the business leaders of the home country is an indication of the development degree of a country. This is a significant matter especially when it comes to foreign direct investments & the joint investments with the home economic sectors with advanced technologies which need skilled workers. Secondly, more developed economies provide better fundamental resources to attract foreign direct investments (Soreide, 2003).

3- Research Methodology: Numerical Taxonomy

Numerical Taxonomy provides methods that are objective, explicit, and repeatable, and is based on the ideas first put forward by M. Adanson in 1963. The research methodology used in this study is based a work done by M. Andanson & later modified by Zygmunt Hellwin in 1968. The ideal taxonomy is composed of information-rich taxa based on as many features as possible, that overall similarity between any two entities is a function of the similarity of the many characters on which the comparison is based, and that taxa are constructed on the basis of diverse character correlations in the groups studied.

As explained before there are different factors which influence foreign direct investments inflows to Islamic countries. Since there is a lack of data and statistics for some of the Islamic countries and some of the above-mentioned indices, we had to confine ourselves to the available indices &
limit the scope of the Islamic countries to those countries whose indices are available. Therefore, the following indices have been chosen to rank forty-six Islamic States of the OIC:
1- Economic Freedom
2- Trade Openness
3- The per Capita Number of Tourists
4- Economic Stability
5- Regionalism
6- The Market size

In other words, the ranking of the Islamic countries is done based on the above indices using 2003-2004 data. The method of ranking uses Numerical Taxonomy as introduced by M. Anderson & later modified by Zygmunt Hellwin in 1968. The results of the ranking are presented Table-2. Based on the above-mentioned method, the numerical value of each index, which is a combined variable, is between zero and one. The closer the index is to one, the country under question is considered to be in a better standing with regard to foreign direct investments. Once the average for each of the OIC member state was obtained, the countries were then ranked accordingly.

It needs to be mentioned that because of the lack of data & the statistics about some of the OIC members, such countries were omitted from the ranking. Therefore, the number of countries was reduced to 46 states.

According to the findings of this study, the country of Malaysia turned out to be the best country suited to attract FDI. The countries of Uzbekistan, Nigeria, Iran, Maldives & Sudan turned out to be the bottom five countries in Table-2. The Islamic Republic of Iran ranked 44th among all of the OIC member states.

4- Conclusions

Since foreign investments play a significant role in developing countries, a vast number of studies relating to foreign direct investments have taken place & many countries eagerly seek for ways to attract such investments. Some of the factors influencing foreign direct investments are in the form of combined indices and some are a single index. In this article, based on empirical studies, we have selected some of the most important factors (compound & single) influencing foreign investments. Based on such
investments the Islamic countries were ranked. These factors are: Economic freedom index, the per Capita Number of Tourists, Regionalism index, Trade openness index, Market Size & Economic Stability index. The ranking of the Islamic countries was done by a numerical taxonomy technique using the above-mentioned indices. As can be seen from Table –2, the country of Malaysia is the state with the highest chance of attracting foreign direct investments. Because of her high economic growth rate & the implementation of trade opening policies in recent years Malaysia has been able to gain the top position visa-vies other OIC member states. The low tariff rates along with a policy of freedom of movements of goods and capital coupled with high rates of growth & development in this country have been able to strengthen the motives of foreign investors to invest in Malaysia. Also in recent years this country had ranked very high among the Islamic countries from economic freedom index perspective. This index in itself proves the existence of an appropriate framework of ensuring financial stability & sound policies in controlling the rate of inflation and economic instability. With regard to Indonesia one can refer to plans aimed at globalization, expansion of the telecommunication system & trade contracts. In recent years Indonesia has been able to attain high growth rates in producing & supplying industrial and electronic products to the world market by enforcing appropriate policies visa-vies developed countries.

As for the countries at the bottom of the ranking Table-2 such as Libya & Uzbekistan the economic freedom index as put out by the Heritage Foundation shows that these countries have had the worst status when it comes to the compound economic freedom index among all the Islamic countries in the past years. Inappropriate policies of the public sectors in controlling financial markets, the goods and services market, the labor market & the foreign sector have had a negative impact on foreign investments inflows.
Table -2: The FDI Ranking of the OIC member countries (years 2003-2004)

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<th>Rank</th>
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<th>Country</th>
<th>Rank</th>
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