The Role of Foreign Direct Investment to Strengthen the Economy in Developing Countries (A Comparative Study of Kazakhstan and Pakistan)

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Abstract: Foreign Direct Investment often argues as one of the most essential and integral parts of the country’s economic growth in past few decades however there is a lot of complication in this regard and this is not as straight forward as it sounds. The research aims to illustrate the relationship between Foreign Direct Investment inflows in the economic growth of Pakistan and Kazakhstan. Various studies pointed out that Foreign Direct Investment inflow has a positive impact which leads to the economic growth of developing countries while in some cases it negative and null. The multiple linear regression methods were used to identify the improvement of the country economy by Foreign Direct Investment. As the results of this study indicated there is a highly significant impact of Foreign Direct Investment in the economic growth of developing countries, and increasing the inflow of Foreign Direct Investment will lead to an increment and growth of the country economic.

Keywords: Foreign Direct Investments, Economic Growth, Developing Countries

1. Introduction

Foreign direct investment plays a crucial role in improving economic growth when it comes to underdeveloped countries (Khan, 2007). According to (Duttagupta, 2011) mentioned that the components of FDI capital inflows remain ten percent of gross fixed capital formation which is why the FDI flow to developing countries recover more quickly. In accordance with, (Moure & forte 2009) the foreign investment has positive effects on GDP growth but later (Alfaro et al 2010) didn’t agree with the statement and challenged the effects of FDI while measuring the strength of GDP. The research has sought to find out the role of FDI in developing countries in Kazakhstan and Pakistan and whether how FDI plays an important role in economic development and what is the impact on the host country.

2. Literature Review

Foreign direct investment in the economy has analyzed by (Amna Muhammad Gudaro et al 2012) and (Zia Ur Rahman., 2014) to find out the effects of foreign direct investment (FDI) and inflation of Pakistan’s GDP by using linear regression modal. The study found out the positive relationship with GDP while the negative relationship was found when it came to inflation. (Nayyara Zeb et al 2014) examined the impact of FDI which affected the GDP of Pakistan. Political instability, trade openness, and terrorist attacks were the major factors noted. The market that has great demand or (demand-oriented market) which stands behind the decision of a firm to copy the production and distribution facilities and operations may refer to as horizontal FDI as stated by (Dubovecky and Garoseanu, 2015).

2.1 Foreign Direct Investment and Economic Growth

According to (Chanda, Kalemli-Ozcan, andSayek, 2010; Mencinger 2003) there are five positive ways to affect economic growth in order to have increased foreign direct investment of the domestic economy. Appropriate host country policies and a basic level of development is the most productive and efficient way to achieve economic growth according to (OECD 2002). A Structure created by (Bilir et al., 2015) in which financial domestic market can affect international firm’s export intensity by grooming the local competitive advantage landscape.

2.2 Theory on Foreign Direct Investment

One of the first views according to (Carkovic and Levine, 2002) is the belief that FDI produces externalities in a form of technology and spillovers when it comes to the growth effect of the economy. The electric theory is the second most significant theory which strives to offer a general framework in order to find out the pattern of international owned production undertaken by a country’s private companies, and the domestic production (Dunning and Lundan, 2008).

2.3 Influential Factor of Foreign Direct Investment

(Blomstrom, 2014) believes that managerial skill of the local workers (labor embodied) is much more important and a vital characteristic of foreign direct investment in relation to a transfer of technology as this is not only in the form of equipment or (capital embodied). Similarly (Bodman, P, and Le, T, 2013) studied the impact of technology when it comes to FDI in the total factor’s productivity where they found out that the FDI receiving countries would automatically lead to a skillful and well-trained labor force where the sources of research and development spillovers lie.
2.4 Negative Impact of Foreign Direct Investment

According to (Wei and Liu, 2003) foreign direct investment may cause negative effect on the host countries which may lead to technological reverse spillover whereby most of the international companies aim to improve and increase its productivity with the local company. On the other hand domestic company’s productivity stays the same and there is no improvement would be seen. In other words, it doesn’t matter how effectively host government tries to spend money or take initiative to obtain the foreign direct investment, there will be no transfer of technology (Long, Hale, and Miura, 2014).

3. Methodology and Data

The methodology applied for the empirical findings on this thesis is regression analysis. This research aims to identify the role of Foreign Direct Investment inflow on countries economy by making a comparison between Kazakhstan and Pakistan and how the Foreign Direct Investment helps to develop both of their economies.

3.1 Data

The quantitative data have been collected from the Kazakhstan Statistics Agency and World Bank Data, Human Development Index from period 1994 to 2013 quarterly, and it's classified as secondary data and available publicly.

3.2 Empirical Result

The presented results in this study using the multiple linear regressions method. Table 1 shows results of the three variables: Foreign Direct Investment (FDI), Gross Capital Formation (GCF), and Human Development Index (HDI) as independent variables, and demonstrate how these variables affect the Gross Domestic Product. The results show the hypothesis relationship between the three variables on the Gross Domestic Product of Kazakhstan.

The equation of the model is:

\[ Y = \beta_0 + \beta_1(FDI) + \beta_2(GCF) + \beta_3(HDI) + \epsilon \]

Table 1: The results of the relationship between FDI and GDP

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (BDI)</th>
<th>T-statistics</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>0.646424</td>
<td>2.619645</td>
<td>0.0106</td>
</tr>
<tr>
<td>GCF</td>
<td>0.463724</td>
<td>3.930424</td>
<td>0.0002</td>
</tr>
<tr>
<td>HDI</td>
<td>52.53805</td>
<td>2.481612</td>
<td>0.0153</td>
</tr>
<tr>
<td>Constant</td>
<td>-29.44230</td>
<td>-2.016047</td>
<td>0.0473</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.911419 \quad Adjusted \ R^2 = 0.906 \quad s=1.69 \quad DW=1.97 \]

The presented results in this study using the multiple linear regressions method. Table 1 shows results of the three variables: Foreign Direct Investment (FDI), Gross Capital Formation (GCF), and Human Development Index (HDI) as independent variables, and demonstrate how these variables affect the Gross Domestic Product. The results show the hypothesis relationship between the three variables on the Gross Domestic Product of Kazakhstan and how they affect the Gross Domestic Product, compared to other variables, the Human Development Index as the tables show has an insignificant effect on GDP. The hypothesis that presented for this model on the effectiveness of Foreign Direct Investment in Kazakhstan economic growth, the result shows a significant positive effect on the two variables FDI and GDP. The increment of 1 unit in Foreign Direct Investment (FDI) will cause the same increment in Gross Domestic Product (GDP). Moreover, Table 1 shows the high value of \( R^2 \) and adjusted \( R^2 \) and DW equal 1.97 this value is close to 2.

3.3 Comparison between Kazakhstan and Pakistan

The quantitative data is collected from the World Data Bank for this study is classified as secondary data and available publicly. The data collected used in this study for the time period from 1979 to 2013.

3.4 Multiple Linear Regressions

The multiple linear regression models are used to find the relationship between the Foreign Direct Investment and inflation in Pakistan Gross Domestic Product. In this model, the GDP is dependent variables and the FDI variables are independent. This study aims to determine the impact of Foreign Domestic Investment in the Economic Growth in Pakistan. The variables are given in this model natural log of growth domestic product (LGDG), natural log of foreign direct investment (LFDI), natural log of inflation rate (LINF), and error term (\( \epsilon \)).

The equation of the model is:

\[ LGDP = \beta_0 + \beta_1LFDI + \beta_2LINF + \epsilon \]

Augmented dickey fuller test for stationarity:

Before sorting out the connection between FDI, rate of inflation, and GDP, we tend to reach to check the stationarity of data by using augmented dickey fuller test.

Table 2: Augmented Dickey-Fuller test for stationarity

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF at first difference</th>
<th>ADF at second difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGDP</td>
<td>-1.60935</td>
<td>-2.79024</td>
</tr>
<tr>
<td>LFDI</td>
<td>-0.90858</td>
<td>-2.74645</td>
</tr>
<tr>
<td>LINF</td>
<td>-2.36429</td>
<td>-1.93789</td>
</tr>
</tbody>
</table>

Note: The critical value of McKinnon for intercept at 5% level = -3.53 and at 1% level = -3.75

Table 2 presents the results of the Augmented Dickey-Fuller Test, the purpose of this test to find out the stationary data with an intercept at 5% and 1% level of significance. The results in Table 2 show all variables are non-stationary at the level and first difference. And in the second difference shows that GDP, FDI, and inflation became stationary, so all the three variables are integrated at degree two.

Regression analysis

Table 3: Results of ordinary least square

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t-ratio</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>11.2164</td>
<td>0.238515</td>
<td>47.0262</td>
<td>0.00001</td>
</tr>
<tr>
<td>LINF</td>
<td>-0.91</td>
<td>0.018205</td>
<td>-5.8400</td>
<td>0.00001</td>
</tr>
<tr>
<td>LFDI</td>
<td>0.446688</td>
<td>0.038307</td>
<td>11.5035</td>
<td>0.00001</td>
</tr>
</tbody>
</table>

Table 3 present the results of ordinary least square. The P-value is 3.93e-13 and that shows the significance of the model overall. The R² value is 0.32243 showing that 83% of the variation in the dependent variable explained by
independent variables. The empirical results of this model show a positive impact of FDI in the GDP and highly significant effectiveness; on the contrary, inflation has a significant negative impact on GDP. The Table shows that if the FDI increased by 1% the GDP will increase by 0.44%. And if inflation increased by 1% the GDP will decrease by 0.9%.

4. Conclusion

This research aims to examine the impact of Foreign Direct Investment in Kazakhstan and Pakistan economics growth. As the results of the two countries show positives effect of Foreign Direct Investment in the country. The study made in Kazakhstan from 1994 to 2013 shows that the GDP of Kazakhstan relies on the inflow of FDI and GCF inside the country. The comparison has been made In Pakistan on the period of 1979-2013 shows the effectiveness of Foreign Direct Investment and inflation on economic growth. Empirical results confirm that Foreign Direct Investment inflow has positive effects in Pakistan economy, on the contrary, the inflation in Pakistan harms the economic growth, if the inflation increase 1% that will cause a decrease in GDP by 0.91%, but if the FDI inflow increase 1% that will lead to an increase of 0.44% in GDP.

5. Recommendation

We believe Foreign Direct Investment does play an important role to strengthen the economy of Pakistan and Kazakhstan but it has some limitations. Government has to balance itself and decides the boundary of foreign direct investment which could help local business and labors instead of foreign business.

- Industrialization is the possible way to overcome the negative impact of foreign direct investment which means the government should increase the tariff rates on import goods by encouraging exports of the local products to promote the domestic industry.
- The government must not allow every single industry to enter the local market unless if there is a monopoly of the firm than only it should be necessary to bring FDI to break the monopoly. The small-medium enterprise may help to balance the domestic and international market in the country as well.
- Industrialization may be achieved from two different ways which are through joint venture and partnership. As we all know most of developing countries do not have access to the latest technology and even expertise in various fields, therefore, we strongly believe that joint venture may play a major role to promote the local industry where both countries can learn from each other’s experience. Similarly, a partnership is another form of industrialization where the company can benefit from foreign direct investment.
- The government must need to inject a lot of capitals to its local business rather than being dependent on foreign direct investment.

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