

Significance of Foreign Direct Investment on Economic Growth in Bangladesh

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Abstract— As foreign direct investment has been a key element over the analysis of economic growth, this research paper aims to analyze the significance of foreign direct investment (FDI) in Bangladesh. The link between gross domestic product (GDP), foreign direct investment (FDI) and Inflation is measured with the help of multiple regression models. GDP in this model is used as dependent variable whereas FDI and inflation (CPI) are measured as independent variables. According to the results, the model is overall significant with the positive and significant association of GDP and FDI while a negative and significant relationship found between GDP and inflation. Policy proposals are advised to attract FDI in Bangladesh on the basis of the empirical results acquired. Foreign direct investment (FDI) is an essential factor for economic growth in the developing countries. FDI allows the transfer of technology, uplift competition in the domestic input market, contributes to human capital development and Profits created by FDI contribute to corporate tax revenues in the host country.

Index Terms—FDI, GDP, CPI, Economic Growth, Multiple Regression, Bangladesh.

1 INTRODUCTION

Foreign Direct Investment (FDI) is considered as one of the essential factors for overall development process of a developing country like Bangladesh. Industrial development is an important pre-requisite for economic growth of a developing country. Bangladesh is basically a country of agrarian economy. For her economic development, industrial economy is imperative. So Bangladesh is gradually moving from agrarian economy to industrial economy. In the age of globalization, it has become a burning issue to exchange views, ideas, capital and human resources. Government of Bangladesh is trying to create a favorable investment environment through introducing economic policies, incentives for investors, promoting privatization and so on. Therefore, the contribution of FDI is necessary in the enhancement of a country's economic growth.

In the context of the new theory of economic growth, FDI is considered as an engine of growth of mainstream economics and accounts for more than half of the private capital flows between countries in the world (Thilakaweera, 2011). FDI definition will be followed in accordance with the International Monetary Fund (IMF), 'investment that is made to acquire lasting interest in an enterprise operating in an economy other than that of the investor, the investor's purpose being to have an effective voice in the management of the enterprise'. The same definition followed by United Nations Conference on Trade and Development (UNCTAD) in its

World Investment Report (2006) and Bangladesh Board of Investment (2004). Economics has the power to change the global world. Bangladesh needs economic development to survive in this world. There are varieties of components which can boost up the economy of a country. Foreign Direct Investment (FDI) is a well-known factor in the case of economic growth. After fulfilling all the basic needs, Bangladesh is unable to gather enough domestic savings to invest in lucrative projects as it is an under-developed country. In response to this, FDI is used to be one of the major components for the economic growth of Bangladesh. Shaari, Hong and Shukeri (2012), Hetes, Moldovan and Miru (2009), Z. K. Kang (2010) confirms that FDI can enhance economic growth. FDI in any country not only represent the investment of the foreign nation but it also transfers the better and current technological innovations, enhanced human resource and administrative ideas, well trained labor force and management skill. However, Ludosean (2012) and Athukorala (2004) found that FDI is not the initiative of economic growth. FDI leads to international trade and economic growth (Oladipo, 2010). My research question is FDI is not only limited to transfer or foreign money but also works for growth of an economy. My research also focuses on how FDI influenced through economic factors and how FDI revenue can change export revenue from the perspective of Bangladesh.

A foreign direct investment (FDI) is an investment made by a company or entity based in one country, into a company or entity based in another country. Foreign direct investments differ substantially from indirect investments such as portfolio flows, wherein overseas institutions invest in equities listed on a nation's stock exchange. Entities making direct investments typically have a significant degree of influence and control over the company into which the investment is made. Open economies with skilled workforces and good growth prospects tend to attract larger amounts of foreign direct investment than closed, highly regulated economies.

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FDI can be defined long term investment of a "parent" enterprise from "home" economy into a subsidiary, affiliate, or branch enterprise in a foreign "host" economy. FDI flows include assets, property (e.g. parent company technology, branding, and skills) and \ or capital investment (greater than 10% of total shares in a company), reinvested earnings (retained profits in an affiliate, or intra company loan / debt transaction (long term borrowing/ lending) between firm and affiliate enterprises. FDI stocks are the value of capital and reserves (including retained profit) attributable to a parent enterprise. Other type of foreign investment is portfolio investment (shareholder investment in less than 10% of a company's capital) and bonds/loans are obtained from foreign banks.

FDI stocks are the value of capital and reserves (including retained profit) attributable to a parent enterprise. Other type of foreign investment is portfolio investment (shareholder investment in less than 10% of a company's capital) and bonds/loans are obtained from foreign banks. The relationship between Foreign Direct Investment (FDI) and economic growth has been an interested issue for several decades. In the new growth theory, FDI is an important factor which contributes to economic growth through technology transfer efficiency improvement. FDI affects economic growth in several ways.

Broadly, foreign direct investment includes "mergers and acquisitions, building new facilities, reinvesting profits earned from overseas operations and intra company loans". In a narrow sense, foreign direct investment refers just to building new facilities a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor.

FDI is the sum of equity capital, other long-term capital, and short-term capital as shown the balance of payments. FDI usually involves participation in management, joint-venture, transfer of technology and expertise. Stock of FDI is the net (i.e., inward FDI minus outward FDI) cumulative FDI for any given period. Direct investment excludes investment through purchase of shares.

Foreign direct investment (FDI) has become to be known as one of the most effective method of drawing flows from external sources. The use of this technique has also become a significant aspect of building capital in developing countries around the world. However, the share of investment from these countries in other states has been declining over the past years. For developing countries, the positive impact of foreign direct investment is becoming increasingly popular as a tool for economic growth and strengthening (Muhammad2007).

The strongest positives of implementing FDI is the increase in aggregate productivity, increased opportunities of employment, greater outflow of exports and exchange of techno-

logical advancement between the investor and country. Having foreign direct investment in a developing country enables the employment and exploitation of natural and human resources, to implement innovative businesses practices, in terms of management and marketing, and facilitates in reduction of budget deficit. Another benefit of FDI is that it does involve the risks and regulations of external debt and adds value to the human capital through provision of on the job training. For countries that face a scarcity of capital and technological expertise usually experience growth slower than those that do. According to a number of studies, foreign direct investment can serve as a means of transfer of technology and knowledge (Dunning &Hamdani 1997).

FDI is one example of international factor movements a foreign direct investment (FDI) is a controlling ownership in a business enterprise in one country by an entity based in another country. Foreign direct investment is distinguished from portfolio foreign investment, a passive investment in the securities of another country such as public stocks and bonds, by the element of "control".

The existing literature stresses on the link of FDI and economic environment of the host country and points out that economic environment is influenced by the development strategies and policies followed by the host country. Furthermore, some studies conclude that the causal link between FDI and economic growth depends upon the characteristics of the host countries such as human capital, market size, availability of technology (for details see Barro, 1990; Zhang, 2001; Blonigan and Wang, 2005).

2 LITERATURE REVIEW

FDI became an important issue nationally and internationally these days. J. Dunning, S. Hymer and R. Vernon are undoubtedly the world's leading scholars who worked a lot on the subject of multinational corporations and international business and they mainly focus on FDI, which is an important element of economic development in all countries, especially in the developing ones. Though it has been observed from a few empirical studies that the effects of FDI are complex considering economic development, FDI would transfer new technology, increases managerial skills, know how, expand productivity, international production network, creates linkages to foreign markets and reduces unemployment. These are the positive effects on economy for which many countries get attracted to these and invest in FDI, Caves (1996).

Foreign direct investment represents a veritable source of foreign exchange and technological transfer, especially to a developing economy like Nigeria. It can be analyzed in terms of inflow of new equity capital (change in foreign share capital), re- invested earning (unremitted profit), trade and supplier's credit, net inflow of borrowing and other obligations from the parent company or its affiliates (Nwankwo et al, 2013). Olopoenia (1985) observed that foreign investment

could be seen as an additional factor of production and as a supplement to the national savings effort of the capital importing country. This is meant to relax both the foreign exchange and savings constraint on the rate of growth of output in the recipient country.

Agada and Okpe (2012) saw FDI as an attempt by individuals, groups, companies and government of a nation to move resources of productive purpose across its country to another country with the anticipation of earning some surplus. Otaola (2012), asserted that FDI has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of capital formation in these countries, though their share in the global distribution of FDI continue to remain small or even declining. Caves (1996) also observed that the rationale for increased efforts to attract more FDI stems from the belief that FDI has several positive effects. Among these are productivity gains, technology transfers, and the introduction of new processes, managerial skills and know-how in the domestic market, employee training, international production networks, and access to markets.

Previous studies on the Foreign Direct Investment (FDI) and economic growth in Nigeria and other countries provided inconclusive evidence. Lall (2002) opined that FDI inflow affects many factors in the economy and these factors in turn affect economic growth. This review shows that the debate on the impact of FDI on economic growth is far from being conclusive. The role of FDI seems to be country specific and can be positive, negative or insignificant, depending on the economic, institutional and technological conditions in the recipient countries. For instance, Solomon and Eka (2013) investigated the empirical relationship between Foreign Direct Investment and economic growth in Nigeria. The work covered a period of 1981-2009 using an annual data from Central Bank of Nigeria statistical bulletin. A growth model via the Ordinary Least Square method was used to ascertain the relationship between FDI and economic growth in Nigeria. The result of the OLS techniques indicated that FDI has a positive but has insignificant impact on Nigerian economic growth for the period under study. Alejandro (2010) explained that FDI plays an extra ordinary and growing role in global business and economics. It can provide a firm with new markets and marketing channels, cheaper production facilities access to new technology products, skills and financing for a host country or the foreign firms which investment, it can provide a source of new technologies, capital processes products, organization technologies and management skills and other positive externalities and spillover that can provide a strong impetus to regional economic growth. Obwona (2001) noted in his study of the determinants of FDI and their impact on growth in Uganda that macroeconomic and political stability and policy consistency are important parameters determining the inflow of Foreign Direct Investment (FDI) into Uganda and that Foreign Direct Investment (FDI) affects growth positively but insignificant. Foreign Direct Investment (FDI) also contributes to economic growth via technology transfer.

Zhang (2001) argued that Foreign Direct Investment has positive growth impact that is similar to domestic investment along with partly alleviating balance of payment deficit in the current account. He opined that via technology transfer and spillover efficiency, the inflow of direct foreign investment might be able to stimulate a country economic performance.

Ewe-Ghee Lim (2001) summarized recent arguments and findings on FDI and its correlation with economic growth focusing on literature regarding spillovers from FDI and found that while substantial support exists for positive spillovers from FDI, there is no consensus on causality. Otepolo (2002) also examined the importance of direct foreign investment in Nigeria. The study empirically examined the impact of FDI on growth. He concluded that FDI contributes significantly to growth especially through exports. Ricardo, Hwang and Rodrick (2005) argued that Foreign Direct Investment (FDI) provide a path for emerging nations to export the products developed economies usually sell, in effect increasing their export sophistication. Many developing countries pursue FDI as a tool for export promotion, rather than production for the domestic economy. Typically, foreign investors build plants in nations where they can produce goods for export at lower costs. Bende-Nabende (2002) also found that direct long term impact of Foreign Direct Investment (FDI) on output is significant and positive for comparatively economically less advanced Philippines and Thailand, but negative in the more economically advanced Japan and Taiwan. In the same line, Ariyo (1998) studied the investment trend and its impact on Nigeria's economic growth over the years. He found that only private domestic investment consistently contributed to raising GDP growth rates during the period considered (1970-1995).

However, Alfaro et al, (2003) affirmed that the contribution of FDI to growth depends on the sector of the economy where the FDI operates. He claimed that FDI inflow to the primary sectors, tends to have a negative effect on growth, however, as for the service sector, the effect of FDI inflow is not so clear. Durharm (2004) for example, failed to establish a positive relationship between Foreign Direct Investment (FDI) and growth but instead suggests that the effects of Foreign Direct Investment (FDI) are contingents on the absorptive capability of host countries. Nwankwo et al, (2013) investigated the impact of globalization on foreign direct investment in Nigeria since the world has become a global village. The methodology used is purely descriptive and narrative and the data used is secondary. It was found out that foreign direct investment (FDI) has been of increased benefit to Nigeria in the area of employment, transfer of technology, encouragement of local enterprises etc. But there are certain impediments to the full realization of the benefits of foreign direct investment. Adelegan (2000) also explored the seemingly unrelated regression model to examine the impact of FDI on economic growth in Nigeria and found out that FDI is pro-consumption and pro-import and negatively related to gross domestic investment. In the same line, Ogiogio (1995) reported negative

contributions of public investment to GDP growth in Nigeria for reasons of distortions. Oyinlola (1995) also conceptualized foreign capital to include foreign loans, direct foreign investments and export earnings. Using Chenery and Stout's two-gap model (Chenery and Stout, 1966), he concluded that FDI has a negative effect on economic development in Nigeria.

According to the study done by Pardeep Agrawal (2000) on economic impact of foreign direct investment in south Asia by under talking time -series, cross- section analysis of panel data from five south Asian countries India, Pakistan, Bangladesh, Srilanka, and Nepal that there exist complementarily and linkage effects between foreign and national investment. Further he argues that, the impact of FDI inflows on GDP growth rate is negative prior to 1980, mildly positive for early eighties and strongly positive over the late eighties and early nineties.

Getinet and Hirut (2006) studied the nature and determinants of foreign direct investment in Ethiopia over the period 1974-2001. The study gives an extensive account of the theoretical explanation of FDI as well as reviewing the policy regimes, the FDI regulatory framework and institutional set up in the country over the study period. It also undertakes empirical analysis to establish the determining factors of FDI in Ethiopia.

On the other hand, macro-economic instability and poor infrastructure have negative impact on FDI. These findings imply that liberalization of the trade and regulatory regimes, stable macroeconomic and political environment, and major improvement in infrastructure are essential to attract FDI to Ethiopia.

In the perspective from a traditional macroeconomic point of view, FDI flows from the country of origin to host countries focusing on the capital flow and collection of revenue from the investments. On the other hand, the microeconomic view of FDI is not limited to transfer of capital but it also looks into the motivation of investment across the country of origin, the intention of investors for investing rather than the flow of investment and stock (Lipsey, 2002). It has been also observed from the perspective of macroeconomics that FDI generates employment opportunities, increases production, builds competition among local businesses and achieves benefit through new technological knowledge and innovative ability of other firms and countries, Denisia, V. (2010). However, FDI means higher exports, replacement of bank loan, connection to foreign markets and foreign currencies in the case of developing countries. The most important way to look at FDI is through Dunning's Eclectic Framework or OLI (Dunning, 1993a) where OLI refers to Ownership advantages, Location advantages and Internalisation advantages. Dunning explained that a country of origin should have ownership advantages over the host country and also extended the concept by emphasizing on the issue of getting more benefits by applying these OAs in suitable location where it will be produced in a more efficient manner. After the Second World

War FDI became important phenomenon in the international economy. The core objective of FDI drives a firm to invest the projects abroad rather than export. A number of researchers explained FDI from their own point of view which is the outcome of their research and all those new outcomes added some new theories to the previous one. The relationship between FDI and economic growth has been studied by many researchers all over the world so far. Even though the topic of FDI and economic growth is general, but the relationship between FDI and economic growth is reasonably important for less developed countries. There are many different economists who applied verities of approaches to identify the relationship between FDI and GDP in different nations in the global world. Authors have made conclusions consistently with each other, but conclusions of others are not the same even contradictory. FDI and economic growth has been studied quite extensively mainly based on developing economies in the recent literature of studies and outputs of the studies recorded mix results. Some of the studies examined the impact of FDI on economic growth and found that FDI has positive and significant impact on economic growth in the host country with time lag. Shaari, Hong and Shukeri (2012) reveal that FDI and real gross domestic product (GDP) in Malaysia have positive relationship and also found that FDI has given significant impact on Malaysian economic growth while Hetes, Moldovan and Miru (2009) also showed that FDI has positive impact on economic growth in the Central and Eastern European countries. From the perspective of Vietnam, Nguyen (2006) came up with the summary that both FDI and economic growth are supportive to each other and this is how they have two way linkages in between them. During 1996–2005, FDI has direct and positive effects on GDP in Vietnam and it has been also observed by the author that larger economic growth would had been possible in Vietnam if they had invested more resources in the development of financial markets, enhancement of training and education and minimizing the technology gap between vietnam and foreign firms. P. Srinivasan, M. Kalaivani and P. Ibrahim, (2010) agreed to Nguyen and concluded that there is a bidirectional relationship between FDI and GDP in Vietnam. On the other hand Z. K. Kang (2010) came up with the same conclusion of bidirectional relationship and positive link between FDI and economic growth from the perspective of Cameroon during the period of 1980–2009. Moreover, he also added here that domestic investments are less important compare to external remittances particularly in Cameroon. Market demand, quantity of firms in the market, initial cost to set up any plant, marginal cost of a firm and FDI policy of the particular host country facts are some major facts on which the foreign firm's investment depends on whether they should enter the host country or not (Qiu & Wang, 2011). Generally, Greenfield investment is not attractive as the initial cost for setting up the plant is very high; however, brownfield or cross-border merger is more likely to be chosen in the case of low marginal cost of domestic firms. Jenkins and Thomas (2002) and World Bank (2000) pointed out that many scholars have their full faith on FDI because they believe that FDI has the power to develop human capital, knowledge of new technology, create

new job opportunity, facilitate foreign trade, and increase domestic investment and tax revenue. These are some major changes which could be possible in any country because of FDI inflow and these changes could bring employment growth, economic development and ultimately poverty could be reduced. However, Mayne (1997) describes that the impact of FDI on poverty depend on some other factors. These are institutions, policies, economic environment, labor market quality and investment pattern of the host country. A study done by Samad (2009) examined the relationship between FDI and economic growth of nineteen developing countries of South-East Asia and Latin America and his result shows that Latin American countries had a long run and short run relationships between GDP and FDI while one country that was Sri Lanka in the East and South East Asia also indicated long run relationship. Besides that, there was bidirectional relationship in East and South East Asian countries. Meanwhile, Balamurali and Bogahawatte (2004) examined the relationship between FDI and economic growth in Sri Lanka. Ludosean (2012) provide evidence that the FDI does not initiate economic growth and that economic growth is an important factor in terms of attracting FDI in Romania. However, findings of number of studies on FDI and economic growth also show that there is no significant relationship between FDI and economic growth. Study engaged by Athukorala (2004) illustrate that the regression analyses do not provide support for the view of a relationship between FDI and economic growth in Sri Lanka. Ousseini, Hu and Aboubacar (2011) found that FDI as compared with Domestic investment do not have significant impact to the economic growth in Niger and domestic investment only has positive impact on economic growth. From the context of the neoclassical models, Solow (1956) pointed out that there is no other effective channel like FDI that can transfer the knowledge of new technology and develop growth of a country. According to the law of diminishing marginal return, the impact of FDI on growth rate of output reduces for an extra input of labor. Therefore, N. Balamurali and C. Bogahawatte (2004) described that the level of output resulted through FDI but not the growth rate. FDI has been seen as an effective channel to transfer technology and foster growth in developing countries within the framework of the neoclassical models (Solow, 1956). The impact of FDI on growth rate of output was constrained by the existence of diminishing returns of physical capital. Therefore, N. Balamurali and C. Bogahawatte (2004) noticed that the level of output is the outcome of FDI investment and it is difficult to change the growth of output in the long run. However, modern theory of economic growth viewed FDI as an engine of growth. After doing a range of studies the World Bank (2002) declares FDI as the most important tool that can stimulate the economic development of the foreign country by improving the productivity and export revenue of the foreign country. However, the behavior and the relationship are not same between foreign multinational companies and their host countries as different country has different strategies and policies in their own country. According to Neo-classical growth model, there is a tendency to get higher productive return and higher growth rate if proper amount of capital has been

invested by the developed countries to the less developed countries as under developed economies do not have sufficient capital stock. In other words, long term investment like FDI can make available higher productive growth in the economy where capital stock is limited but for the short term period. However, this higher productive growth can influence the whole economy of that particular country for the long term period. From the perspective of the new endogenous growth theory, Romer (1986) proposed that FDI has the power to increase growth efficiency that can bring comparative advantages in the less developed economies and ultimately helps the poor economy to catch-up rich economy in the long-run. FDI inflow plays major role on capital enhancement and other spillover effects on skill development, technological progress, efficient usage of utilities and green innovations, industrialization, trade and government investment in Bangladesh. Todaro and Smith (2003), Hayami (2001) argues that FDI might fill the gap between investment and domestically mobilized savings as they believe that improvement of management, technology, labor skills in host countries and increased tax revenues are the results of FDI flow. Hayami (2001) also added that FDI sometimes helps a country to come out from crucial situation of underdevelopment. Looking at two most popular developing countries China and India, Zafar, Imran and Ramzan (2013) considered FDI as an important tool to market growth. United Nations Conference on Trade and Development (2005) and UNCTAD (2006) pointed out that FDI is an important element that can bring globalization to host economies by transferring know-how, upgrading technology and managing skills exchange. Adhikary (2011) emphasized on strong unidirectional long-term causal flow which has been recorded from the changes of FDI, trade openness and capital formation to foster the growth of GDP. In response to this, he investigated the linkage between FDI, trade openness, capital formation, and economic growth rates empirically in the context of Bangladesh where time series data gleaned based on the time period of 1986–2008 and a strong long-run linkage found among the variables. FDI receives more attention from all over the world from the last two decades and plays a positive role in the process of economic growth. According to Thomas et al. (2008) foreign multinational corporations became popular by developing new products and technologies faster compare to local firms, and thus competition increases among local firms to make similar products like multinationals as well as innovative products. Therefore, Zafar, Imran and Ramzan (2013) found this as the main reason of why the developing countries are trying to attract more FDI. Zafar, Imran and Ramzan (2013) observed that increased number of new jobs, improved income level, high growth of GDP and ultimately high quality living standards are the outcome of proper utilization of FDI in respect to developing countries. Therefore, all policymakers agreed on one point that FDI imposes positive impact on productivity of host countries. Moreover, FDI can reform a national economy and promote economic development. Blomstrom (1994) observed that effectiveness increases among local firms in Mexico and Indonesia. On the other hand, Smarzynska (2002) concluded that FDI spillovers through backward linkages result-

ed higher impact on local firms compare to multinational firms in Lithuania. Borensztein (1998) and Findlay (1978) concentrated on economic development, technological improvements of less-developed countries which are the results of FDI investments. Hanson (2001) explained a few positive sides of FDI whereas Greenwood (2002) came up with negative effects of FDI that it may crowd out local firms that hampers the developments of economy. Lipsey (2002) came up with a very good conclusion that there is no consistent relationship between FDI stock and economic growth though there are positive effects that depend on the nature of the investment sector where the FDI invested. Finally, FDI channels much needed capital for investment and provides support to capital formation; trade openness facilitates the flows of international capital and redirects factor endowments to more productive sectors; a high level of capital formation ensures needed finance for the industries growth and development; and all of them jointly promote economic growth at large. From this perspective, the linkage between FDI, trade openness, and economic growth ought to be positive. Not only this, this nexus should be co-integrated in the long-run. However, a question arises whether this nexus works equally for all developing countries, particularly in Bangladesh.

3 TYPES OF FDI

FDI can be classified into five different types which include: (1) greenfield investment, (2) merger or acquisition, (3) joint venture, (4) horizontal FDI, and (5) vertical FDI (Ball & McCulloch, 1999).

They are discussed in the following sections:

3.1 GREENFIELD INVESTMENT

A company that wishes to own a foreign subsidiary outright may start from a Greenfield investment by building new facilities or expanding existing facilities (Ball & McCulloch, 1999). The establishment of industrial plants and facilities at export processing zones (EPZs) are examples of Greenfield investment in Bangladesh.

3.2 MERGER OR ACQUISITION

A merger or acquisition occurs when a foreign firm purchases the existing assets of a local firm (Ball & McCulloch, 1999). For example, in 2004, a major global telecommunications firm called Orascom purchased 100% of Sheba Telecom (Pvt.) Ltd. in Bangladesh. This acquisition was used to start a business known as "BanglaLink," a wholly-owned subsidiary of Orascom.

3.3 JOINT VENTURE (JV)

A joint venture can be established in several ways. A joint venture can be established when an international company joins with a local company (or with another international

company) to form a corporate entity. Alternatively, the international company could join with the government of the country of investment to form a corporate entity (Ball & McCulloch, 1999). For example, GrameenPhone (GP) in Bangladesh is a JV formed by Telenor of Norway and Grameen Telecom of Bangladesh.

Shahjahan Ali et al (2014) studied that there is a positive long run relationship between FDI and Economic Growth. From the error correction mechanism, the absolute value of error correction coefficient is relatively small, thus the departure of short run fluctuation to long run equilibrium is slight and the adjustment extent is small, and indicates that the promoting effect of foreign direct investment on gross domestic product is relative stationary in Bangladesh at present. At the end, the result of Granger causality test advocates two way causality from foreign direct investment to gross domestic product.

3.4 HORIZONTAL FDI

Horizontal FDI refers to the situation where a company invests in the same type of industry abroad that they are involved in at home (Foreign Direct Investment, 2009). In the JV example described above, Telenor was a major competitor in the telecommunications market in Norway, prior to entering the Bangladesh telecommunications market by forming a JV with local firm Grameen Telecom.

3.5 VERTICAL FDI

Vertical FDI has two forms: (1) Backward vertical FDI involves investing in an industry which provides inputs for the investing firm's domestic production; and (2) Forward vertical FDI involves investing in an industry which sells the output of the investing firm's domestic production.

4 OBJECTIVE OF THE STUDY

The core objective of this study is to evaluate the impact of Foreign Direct Investment (FDI) on the economic development of Bangladesh. To attain the objective, this paper has conducted statistical analyses of the relationships between FDI and its impact on selected macroeconomic indicators such as Gross Domestic Product and Inflation Rate.

5 METHODOLOGY

Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP. Of more importance is the growth of the ratio of GDP to population (GDP per capita, which is also called per capita income). An increase in growth caused by more efficient use of inputs (such as labor, physical capital, energy or materials)

is referred to as intensive growth. GDP growth caused only by increases in the amount of inputs available for use (increased population, new territory) is called extensive growth.

In economics, "economic growth" or "economic growth theory" typically refers to growth of potential output, i.e., production at "full employment". As an area of study, economic growth is generally distinguished from development economics. The former is primarily the study of how countries can advance their economies. The latter is the study of the economic development process particularly in low-income countries.

Growth is usually calculated in real terms – i.e., inflation-adjusted terms – to eliminate the distorting effect of inflation on the price of goods produced. Measurement of economic growth uses national income accounting. Since economic growth is measured as the annual percent change of gross domestic product (GDP), it has all the advantages and drawbacks of that measure.

Gross Domestic Product (GDP) is a type of economic tool that is utilized by governments and economists as a means of measuring or attributing a value to the final goods and related services within a defined economy in a stated period. Usually, the measurement of GDP is used to calculate the living standards in a country due to its importance in the calculation of how well the economy is performing. As such, the relationship between GDP and economic growth is the fact that GDP serves as a means for analyzing how an economy is behaving. This link between GDP and economic growth is drawn from the fact that the GDP seeks to measure the total consumption of goods and services within the economy, a factor that helps shed light on the state of the economy under consideration. During the calculation of the GDP as part of the process of establishing the link between GDP and economic growth, the analysis is divided into time periods, which may be based on quarterly assessments. Whatever the case, when the consumption within that period is high, it shows that the economy is performing according to expectations. When the consumption is low, this may be the basis of concern due to the negative macroeconomists effects. Even though consumption is necessary to maintain the economic balance, an excessive rate of consumption can have the opposite effect as it may result in inflation.

The purpose of this research paper is to examine the relation of Bangladesh's GDP with FDI and inflation (CPI). Study covers the time period from 1981-2010. As World Bank is considered as an authentic source of data collection therefore, secondary data of the mentioned variables is collected from this reliable source. To examine the relation of Pakistan's GDP with FDI and inflation (CPI), the following theoretical model is used.

$$GDP = F(\text{FDI} \& \text{CPI})$$

The core intention of the paper is to study the effect of FDI on GDP of Bangladesh. The trend of foreign Direct Investment inflows is also observed with relevance to GDP growth and inflation of Bangladesh. To examine the relation of Bangladesh's GDP with FDI and inflation (CPI), the following multiple regression model is used,

$$GDP = \alpha + \beta_1 \text{FDI} + \beta_2 \text{CPI} + \mu$$

Where,

FDI = Foreign Direct Investment

GDP = Gross Domestic Product

CPI = Inflation Rate

Level of Significant: 5 to 10 percent

The aforementioned Multiple Regression Model was run on E-Views to find out the Impact of FDI and CPI on the Gross Domestic Product of Bangladesh. In this multiple regression model, GDP is used as dependent variable whereas FDI and CPI are measured as independent variables. To estimate the effect of FDI on GDP of Pakistan, Multiple Regression Model is applied over the period of 1981 to 2010. Two inputs are used; foreign direct investment and inflation.

6 DATA COLLECTION TECHNIQUE

The research is based on regression analysis and graphical representation with the help of economic data to show the impact of FDI on economic growth. The data was collected from a range of different journals and articles and some data taken from different publications. Dynamic annual time series data from 1980 to 2014 has been used for this study from the website of World Bank. Annual Report of Central Bank of Bangladesh, monthly bulletin and Economics and Socio Statistics publications of the Central Bank of Bangladesh.

7 RESULT ANALYSIS

We used the following multiple regression model for the study.

$$GDP = \alpha + \beta_1 \text{FDI} + \beta_2 \text{CPI} + \mu$$

The proposed model empirical results are depicted by the above table. The slope coefficients of the inputs (FDI) in the multiple regression analyses have positive impact on GDP whereas the slope coefficients of the inputs (CPI) have negative impact on GDP.

Table 1: Empirical results of GDP, FDI and CPI

| Dependent Variable: GDP | | | | |
|---------------------------|-------------|--------------------|-------------|--------|
| Method: Least Squares | | | | |
| Sample: 1981-2015 | | | | |
| Included observations: 35 | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 3.73 | 4.37 | 8.53 | 0.0000 |
| FDI | 4.88 | 4.95 | 13.69 | 0.0000 |
| INFLATION | -1.33 | 5.92 | -2.25 | 0.0321 |
| | | | | |
| R-squared | 0.86 | Mean dependent var | 4.69 | |
| Adjusted R-squared | 0.86 | S.D. dependent var | 2.71 | |
| S.E. of regression | 1.01 | F-statistic | 96.48 | |
| Durbin-Watson stat | 1.75 | Prob(F-statistic) | 0.00 | |

Source: Authors Own Calculation

If one percent change in FDI occurs, it will bring about 4.8869% change in GDP while 1 percent change in CPI will bring- 1.33% change in GDP by holding other variables constant. Estimates (FDI and CPI) are highly significant. As the value of F is too high i.e., 96.48156 and the value of P is so small i.e., 0.000 we can deduce that model is overall very much significant and the results are not by chance. The r-square of this model is 0.87 that means 13% variation in the model is unexplained by FDI and CPI whereas remaining variation (87%) is explained by FDI and GDP.

8 POLICY RECOMMENDATION

The following policies should be followed.

I. ENSURING BUSINESS FRIENDLY ENVIRONMENT

Business friendly environment must be created on priority to attract large FDI. To maximize the benefits of FDI persistently Pakistan should also focus on developing human capital and technology Jobs for unskilled population when compared with service sector.

II. ENSURING QUALITY EDUCATION

Bangladesh's educational sector is highly negligible and its quality is on its last legs. Short of financial resources causes a poor quality of education which further causes a massive talent deficiency and this forced harmful impact on the domestic as well as foreign business. Bangladesh is highly populated country but its working population is uneducated and untrained. This sector requires a grand amount of foreign direct investment so, encouraging opportunities should be originated to attract the domestic and foreign investors.

III. ENSURING POLITICAL STABILITY

A dynamic market economy requires political stability for its best possible outcomes. Political instability generates economic uncertainty because of turn down in investment. A strong financial sector generates higher saving efficiency and it leads to elevated economic growth however, this strong financial sector can only be flourished under the politically stable environment. Political instability is reducing the confidence of investors in our country. In business sector decisions are mainly based on the political stability not on the type of the government. In the recent years a democratic government is present in our country but FDI is rapidly diminishing it means to attract huge amount of FDI political condition of the country must be sound and stable.

IV. IMPROVED QUALITY OF INFRASTRUCTURE

Infrastructure plays an essential role for the growth of any economy. The countries which have good physical infrastructure are considered as the best attractive hosts for the FDI. The law of diminishing returns is applicable in infrastructure especially in a particular type of infrastructure for example the first road or the bridge or any other physical infrastructure is more essential than the second one and the second one is more important than the third one and it continues further in the same way. For that reason, those countries which are poor in infrastructure may be considered as a central source for attracting FDI because their primary requirement is to improve infrastructure through the massive investment.

V. PROVIDE ENOUGH GASOLINE

Enough gasoline is very much needed in case of attracting FDI. Perhaps, the efforts may be gone in vain. This would surely be one of the major concerns for the investors.

VI. ECONOMIC REFORMATION

Economic reformation means the transfer of resources from less productive to more productive sectors of the economy. Real growth of production is directly correlated with the effective process of economy restructuring from the less productive to the more productive sectors of the economy. FDI may be involved in the transfer of resources from less productive to more productive sectors of the economy.

9 CONCLUSION

Investments play a significant role in the economic growth, increment in assets and infrastructure in any developing country. In an economy, direct investment is indicative of a positive trend of investment with eventually translates in increase in GDP and economic growth of the country. This can also be proved from the aforementioned studies in the literature review. All efforts made in this regard must keep into

consideration the economic, political and social situation of the country. There must be present for the investor's concrete benefits and opportunities in order for the FDI to have an impact on the economy. Without these, any investment made would be unable to yield the results that were desired. Here we must understand that it is the responsibility of the local government to devise policies and strategies in such a manner that would support the efforts and investments being made. For a country like Bangladesh, the need of the hour is to concentrate on infrastructure development, human resource training, encouraging local entrepreneurs, creation of a stable macroeconomic environment and ensuring opportunities that would be conducive for investors and provide momentum to the developmental process.

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