Management Studies and Economic Systems (MSES), 4 (3), 241-253, Summer 2019

Does Foreign Direct Investment Enhance Economic Growth: Insight from Bangladesh

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Received 27 May 2019, Accepted 7 August 2019

ABSTRACT:
This study deals with foreign direct investment and its impact on economic growth in the context of Bangladesh. The main objective of our study is to evaluate the impact of FDI on the economy of Bangladesh based on the secondary data covering year 2013-2017. This study considers FDI as a dependent variable and GDP, export and investment as independent variables and is used as the indicators of economic growth. Several statistical techniques namely correlation, regression, descriptive analysis and ANOVA test are conducted to identify the association between dependent and independent variables. The result reveals that FDI has significant and positive impact on Export, GDP and investment. Therefore, it can be concluded from the study that foreign direct investment has significant and positive impact on the economic growth of Bangladesh. Foreign direct investment is a vital factor to ensure a country's overall economic development especially for a developing country like Bangladesh because there are big opportunities to grow FDI in Bangladesh as Bangladesh is a small but labor oriented country. Our economic growth is influenced positively by its foreign direct investment inflows greatly. Moreover, policy makers and FDI analysts will be able to realize which sectors should be given more priority for promoting FDI among all economic sectors.

Keywords: *Foreign Direct Investment, Export, Gross Domestic Product, Investment, Economic Growth, Bangladesh*

INTRODUCTION

Investment refers to the expenditure of something for having something in returns. Industrialization is one of the main instances of investment. Foreign direct investment (FDI) refers to a key driver of global economic integration. Foreign direct investment (FDI) means an investment that builds a long-term relationship and also a reflection of a long-lasting interest and control by a resident entity while the term Economic growth means an increment in the capacity of an economy in goods and services, as compared from one period to another (Ali and Hussain, 2017). Foreign direct investment contributes largely on the improvement of certain sectors in a country namely introduction of new technology, product design, brand name, management skill and competitive business environment in a country which are the impetus for overall economic development. In Bangladesh the labor cost is low and there has a high probability of industrialization but the capital availability is inadequate here (Asogwa and Osondu, 2014). FDI helps to develop the host country through competitive business environment, enterprise development and international trade, formation of human capital

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and technological improvement. FDI plays a vital role for a country which faces crises of domestic savings (Ali and Hussain, 2017). In the developing countries the attitude towards the FDI has changed recently due to several factors such as economic liberalization and the pressure to these countries to give attention on the resolution of some economic problems namely unemployment, scarcity of domestic investment and the necessity to have modern technology (Ndiaye and Xu, 2016). The more investment raises the more industrialization promoted and as a result it also creates employment, facilitates export-import, productivity development, technology adaptation etc. investment can be of two types such as local investment or foreign investment. Foreign investment is when foreign investors invest in a host country and both the countries get benefits of return as well as ownership rights. In primitive years of FDI Bangladesh received a little amount. But after 1996 its FDI inflows has been increased significantly. The factors affecting FDI are low labor cost, high probability of industrialization, favorable economic environment (A R, 2012). Economic development is a process whereby an economy's real national income and per capital income both are increases over a long period of times (Benedict, 2013). According to the IMF, Bangladesh's economy is the second fastest growing major economy of 2016, with a rate of 7.1% (DhakaTribune, 2014).The economy of Bangladesh is market based and is known as the 41th largest in the world in nominal terms and 29th largest as measured by purchasing power parity; it is classified among the Next Eleven emerging market economies and a Frontier market (CIA, 2017). In 2016 GDP is $214773 million and FDI is $2003.53 million. FDI influence the economic factors such as GDP, investement, exports etc of any country. There is positive relationship between FDI and GDP. Country's power, gas and petroleum sectors received the highest FDI of $ 574 million followed by textile and wearing $ 443 million, telecommunication $ 255 million and banking $ 310 million. In 2014, the FDI receipt of power, gas and petroleum sector was only $ 50 million (samakal, 2016). Bangladesh is called as a N11 country (Sachs, 2012). As a small labor oriented country, it has attracted the foreign investors year to year. In British period Portugal, France, Turkey entered in Bangladesh for doing business. In 1600s the English also started operating business here. Still present a great number of countries are inclined to invest and operate business as there are facilities to a great extent. The USA, China, Japan, Korea, India, Russia, The UAE, Saudia Arabia and some others countries are investing repeatedly. Natural wealth, low labor cost, land facilities and warm government policies attract foreign investors to invest in different attractive sectors in Bangladesh. After independent war FDI has been increased remarkably (Abdin, 2015). So, economic development through industrialization has a great probability which greatly encourages FDI (Abdin MJ, 2015). Bangladesh is a developing country after it has come out from LDC on 1 July 2015 (BB, 2016).

This study will be helpful to know the significance of FDI on a country's economic growth. FDI is crucial fact for the developing countries since these countries' having enough labor and land but there is lack of sufficient capital. The host countries are mainly benefited due to the increase of GDP, investment, employment and promoting exports. The findings of the study will be also helpful to the policy makers and FDI analysts to realize which sectors should be given more priority for promoting FDI among all economic sectors. This study will help the researcher to gather knowledge on FDI. It will also assist to identify the hindrance behind FDI promotion. The economic growth is the major findings of this study. GDP has been taken as the proxy of economic growth. Moreover export, investment also represent the economic growth. FDI is taken as independent variable and GDP, investment, export being dependent variables tried to express the economy of Bangladesh. During 1980s only some selected sectors received FDI but now its scope has been broader than earlier. Foreign investors have to face some impediments like bureaucratic, political as well as a few natural hazardous. This study has tried to provide some remedies towards those impediments. The statistical tools used in this report reported significant result to have positive impact on economic development in Bangladesh.

The study deals with the impact of foreign direct investment on the economic growth of Bangladesh. The objectives of our study are to identify the impact of foreign direct investment on the economic growth of Bangladesh and also to assess the impact of foreign direct investment with gross domestic product, export and investment separately as here we consider gross domestic product, export and investment as the indicators or measurement scale of economic growth of Bangladesh and also To find out the relationship between foreign direct investment and economic growth. In the next portion we have presented the literature review, methodology of the study, the main findings and analysis and then conclusions and some recommendations respectively.

Research Questions of the Study

1. What are the factors to attract FDI in Bangladesh?
2. How does FDI affect economic growth?

Objectives of the Study

The objectives of the study can be stated below:

1. To identify the factors of economic growth of Bangladesh.
2. To find out the relationship between foreign direct investment and economic growth.
3. To assess the impact of foreign direct investment with gross domestic product, export and investment separately.

Hypothesis of the Study

H_1: FDI has a significant positive relationship with GDP.

H_2: FDI has a significant positive impact on Export.

H_3: FDI has a significant impact on investment.

Literature Review

When a country or any group of countries directly invests to another country by retaining the controlling ownership of a business is called FDI. EPZ in Bangladesh is a remarkable example in this regard. “Foreign Direct Investment means net inflows of investment to have a lasting management interest (10% or more of voting stock) for a business concern operating in an economy (World Bank). Sanchez-Robles (1997) identified the positive correlation between FDI and economic growth, with a view to getting benefit from long term FDI inflows, human capital, stable economic condition and liberalized markets are required in host countries (Sanchez-Robles, 1997). Zhao (1998) metioned FDI as an important tool of economic development especially for a developing country in his study (Zhao, 1998). On the other hand, Libanda et al. (2017) conducted a study on foreign direct investment and economic development. They concluded that Zambia and other developing countries is that Foreign Direct Investment’s benefits exist since FDI favors more the well off and stable economies (Libanda, Marshall and Nyasa, 2017). On the contrary, Asogwa and Osondu (2014) investigated the impact of FDI on economic growth for the period 1980-2009 covering agriculture, manufacturing and telecommunication sectors. They used Endogenous growth model and concluded that FDI into manufacturing and telecommunication sector has positive impact on economic growth in Nigeria while FDI into agricultural sector impacted on economic growth negatively (Asogwa and Osondu, 2014). Moreover, Pandya and Sisombat (2017) explored foreign direct investment (FDI) inflows and its impact on economic growth in Australia. Through regression analysis they concluded that FDI inflows contribute to the Australian economy including a growth in GDP, export performance and employment (Pandya and Sisombat, 2017). Louzi and Abadi (2011) carried out a study which was based on the FDI-led growth hypothesis in the case of Jordan for the period of 1990 to 2009. They used econometric framework of co integration and error correction mechanism and concluded that the impact of DIN and TP on GDP growth rate was positive (Louzi and Abadi, 2011). Similarly, John (2016) studied the effect of foreign direct investment on economic growth in Nigeria covering a period of 1981 to 2015 based on secondary data. They used multiple regression technique and Gretl 1.9.8 econometric software and concluded that foreign direct investment has a positive and significant effect on gross domestic product. Again, he said that exchange rate has a positive but not significant effect on gross domestic product (John, 2016). Again, Ali and Hussain (2017) examined the impact of foreign direct investment (FDI) on the economic growth of Pakistan. They used correlation and multiple regression analysis techniques and finally showed that FDI has a positive impact on the economic growth of Pakistan (Ali and Hussain, 2017). Ndiaye and Xu (2016) also identified the impact of FDI on economic growth for WAEMU countries. They developed theoretical model of investment that included an FDI variable and concluded that FDI has a positive impact on economic growth (Ndiaye and Xu, 2016). Another study was conducted by Yaseen (2014) and in the study he examined the effect of FDI on economic growth of Jordan based on data from 1990 to 2012. They used an empirical analysis and ordinary least square (OLS) regression and result showed that Jordan's economic performance is positively influenced by foreign investment and its gross domestic investment (Yaseen, 2014). Again, Roy and Berg (2006) investigated whether such FDI inflows have stimulated growth of the U.S. economy. They used time-series data to a simultaneous-equation model (SEM) and thus concluded that FDI had a significant, positive, and economically important impact on U.S. growth (Roy and Berg, 2006). On the other hand, Sung-Ming (2014) studied Foreign Direct Investment, Trade and Economic Growth in Taiwan for the time period of 1978 to 2009 in Taiwan. They used the VECM model to identify the impact of FDI and concluded that they have both the long-term existence of the co integration relations and the reverse relationship (Sung-Ming, 2014). In another study Benacek et al. (2000) explored the determinants and effects of FDI in Central and Eastern Europe focusing on Hungary, Poland and the Czech Republic. They used survey studies and econometric studies and concluded that market seeking has been the primary motive of investors, and that the presence of foreign firms has increased productivity levels in Central Europe, but to a limited degree (Benacek, Gronicki, Holland, and Sass, 2000). Rahman (2015) also examined the impact of Foreign Direct Investment (FDI) on the economic development of Bangladesh based on time series data over a period of fifteen years for the period of 1999 to 2013. They used Multiple Regression Analyses and concluded that a negative correlation existed between FDI and economic growth and it may be a concern for Bangladesh government (Rahman A., 2015). In another study Sghaier and Abida (2013) studied the causal linkage between foreign direct investment (FDI), financial development, and economic growth in a panel of 4 countries of North Africa for the period 1980-2011. They used Generalized Method of Moment (GMM) for data analysis and concluded that there existed strong evidence of a positive relationship between FDI and economic growth (Sghaier and Abida, 2013). Harrison (1999) mentioned that FDI has significant impact on the productivity and the development on the economy, (Harrison, 1999). On the other hand, FDI sometimes hindrance to the domestic economic development (Levine, Loayza, et all, 2000). FDI is an important channel for obtaining access to resources as well as technological know-how for development. FDI also involves its visibility or participation in an economy of a major, non-national or alien agent which may not be fully amenable to the regulating or governing actions of the state (Rahman K. M., 2003). Bogahawatte (2004) showed the relationship among FDI Inflows, domestic investments and openness of trade policies, it revealed a strong influence of FDI on economic growth (Bogahawatte, 2004). Mottaleb (2007) Researched on FDI and its determinants on economic growth of lower income as well as middle income countries and concluded that FDI has remarkable economic growth on third world countries keeping pace with the advanced management skills and technologies (Mottaleb, 2007). Quader (2009) analyzed various variables of FDI inflows in Bangladesh and found that FDI and domestic investment have a positive effect on economic growth (Quader, 2009). (Billah, 2010) Argued that FDI increases employment opportunities in Bangladesh and it helps the country to transform itself into an industrial economy. Azam (2010) using linear regression model found that promotion of exports has increasing impacts on economic growth and FDI has 1% level of significance for Bangladesh and Pakistan, for India it is significant but in Sri Lanka it is significant with unexpected negative sign (Azam, 2010). Rahman(2012) Founded that FDI promote economic growth and creates employment opportunities (Rahman A. , 2012). FDI creates employment not only in FDI based sectors but also in the supportive domestic industries. (Nibedita, 2012) Concluded that FDI should be given emphasized on agriculture, manufacturing and service sectors like on telecommunication and energy sectors. FDI promotes positive impact on economic growth and suggest the government initiating policies to attract more foreign direct investment while micro-managing avoid the negative impacts of FDI on local firms, (Benedict, 2013). Again, (MJ,

2015) Referred that remittance, export earnings and FDI are three major sources of revenue of the least developing countries (LDC), again developing countries are in more advantageous position than LDC to attract FDI. In compared to the land and labor cost certain least developed countries take utmost advantage than the developing countries.

There has been very little literature regarding to the impact of Foreign Direct Investment on economic growth (export, GDP and investment) in Bangladesh perspective. Maximum studies regarding to FDI have concentrated on the developed and other countries. FDI is the most talked topic for a developing country like Bangladesh as it is a labor oriented country where labor cost is low but there exists scarcity of capital. The country can mainly be benefited due to the increase of GDP, investment, employment and promoting exports.

RESEARCH METHOD

Sample Design and Sources of Data

The study emphasized on the secondary data regarding to foreign direct investment. The study investigates the relationship of foreign direct investment with gross domestic product, export and investment which are the representatives of economic growth. Here, data were collected by using simple random sampling techniques. The population comprising all the years data and among them only five years data are considered to analyze. The GDP, export and investment have acted as the representative of economic growth rate of Bangladesh and FDI is the independent variable. Data covering the period of 5 years (2013- 2017) has been collected for conducting the study. The study is conducted on secondary data basis collected from different secondary data sources collected from different websites, journals, books and newspapers. Bangladesh Bureau of Statistics (BBS), Bangladesh Bank (BB) and Statistical yearbook 2018, export promotion Bureau and Dhaka tribune covering the year 2013-2017 and all of these were the major sources of data. We also collected data from export promotion Bureau, Dhaka tribune.

Data Analysis Technique

At first the raw data are converted into meaningful information. After data collection all data were processed and analyzed through statistical packages for social sciences (SPSS), version 20 and Microsoft excel that helps to prepare output for interpretations. Then we used correlation and regression analysis to identify the impact of FDI on GDP, export and investment and ultimately on overall economic development of Bangladesh. Again, we used descriptive analysis, correlation and ANOVA to make the paper more understanding and easier. Here, ANOVA test and t-test have been used to find the significance of FDI on economic growth (GDP, Export, and Investment) which shows the significant of FDI on economic growth. The report also shows the FDI inflows, trend analysis, relationship between FDI and GDP, FDI and export and FDI and investment.

RESULTS AND ANALYSIS

Descriptive Analysis

Table 1 shows that GDP is maximum at \$ 214773 million and minimum at \$ 133401 million having mean 173190.2 million. The maximum and minimum values of export are \$ 36760 million and \$26896 million respectively and its mean value is 31862 million dollars. On the other hand, investment has the maximum value of 62658 million dollar and minimum value is 37702 million dollar and its mean value is 49761 million dollars. All the values are for the period of 2013 to 2017. The maximum and minimum values of FDI are \$2003.53 million and \$ 1195 million respectively and its mean value is 1646.7060 million dollars. Import's maximum value is \$56250 million and minimum value is \$ 37285 million. Its mean value is 45593 million dollars. Standard deviation of GDP, Export, investment and FDI are 32862.46, 3835.48, 10100.05 and 315.32 respectively. And standard deviation of import is 7690.61. External debt and exchange rate have no effect on GDP.

Table 1: Descriptive analysis

Variables	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
GDP	133401.00	214773.00	173190.20	32862.46	0.08	-1.56
Export	26896.00	36760.00	31862.80	3835.48	-0.12	-0.87
Import	37285.00	56250.00	45593.00	7690.61	0.52	-1.19
Investment	37702.00	62658.00	49761.00	10100.05	0.13	-1.58
External Debt	26130.80	40802.10	33491.62	5910.32	-0.06	-1.54
Inflation	6.20	8.69	7.09	0.99	1.32	1.49
Exchange	77.67	80.53	78.99	1.29	0.03	-2.49
FDI	1195.00	2003.53	1646.71	315.32	-0.60	-0.46

Source: Authors own calculation

Table 2: Correlation Matrix

Variables		1	2	3	4	5	6	7	8
GDP (1)	Pearson Correlation	1							
	Sig. (2-tailed)								
Export (2)	Pearson Correlation	0.984**	1						
	Sig. (2-tailed)	0.002							
Import (3)	Pearson Correlation	0.992**	0.964**	1					
	Sig. (2-tailed)	0.001	0.008						
Investment (4)	Pearson Correlation	1.000**	0.982**	0.993**	1				
	Sig. (2-tailed)	0.000	0.003	0.001					
ExtDebt (5)	Pearson Correlation	0.999**	0.990**	0.985**	0.998**	1			
	Sig. (2-tailed)	0.000	0.001	0.002	0.000				
Inflation (6)	Pearson Correlation	-0.825	-0.811	-0.801	-0.823	-0.823	1		
	Sig. (2-tailed)	0.085	0.096	0.103	0.087	0.087			
Exchange (7)	Pearson Correlation	0.058	0.061	0.155	0.067	0.032	-0.190	1	
	Sig. (2-tailed)	0.926	0.922	0.804	0.915	0.960	0.759		
FDI (8)	Pearson Correlation	0.838	0.808	0.841	0.839	0.828	-0.979**	0.343	1
	Sig. (2-tailed)	0.076	0.098	0.074	0.076	0.084	0.004	0.572	

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Authors own calculation

Correlation Analysis

Pearson correlation has been calculated for GDP, export, import, investment, external debt, inflation, exchange rate and FDI inflows data series. Significance level is 0.01 (2-tailed). Correlation coefficient shows that GDP has strong relationship with FDI, export, investment, external debt and exchange rate. There is no relationship between GDP in inflation as its coefficient is being negative and it is -.825. The correlation coefficient for FDI is .838, which means there is a strong impact on GDP for FDI inflows for the economic development of Bangladesh. An increase in FDI positively effects on the GDP growth above all the growth of the economy (table 2).

Regression Analysis

Impact of FDI on GDP

The value of R (Correlation Coefficient), R square and Adjusted R square (Coefficient of Determination) are shown in table 3. The values of (R) are .838 and R square is 0.703 and from this we can conclude that the independent variables (foreign direct investment) can explain or account for 70.3 % variation in the dependent variable (gross domestic product). To put it in another way, the remaining portion (1- 0.703) or 0.297% of the variation is due to other sources that means is changed by other factors, such as random error or variables which are not included in the study.

Adjusted R square: The adjusted R square measures the strength of the relationship between independent variable (FDI) and dependent variable (GDP). Here the value of adjusted R square is 0.604 or 60.4% in one side. The adjusted R square indicates that the independent variable account for 60.4%of the variance of dependent variable.

Standard Error: The value is 20678.98 shows the amount of variability of predicted result and the actual result acquired from the real observation.

Table 4 indicates that F value is 7.10 and p value (significance value) 0.046, so GDP is affected by the value of FDI inflows.

Table 5 shows the regression coefficient and Beta value of the linear equation for GDP growth with FDI. Here Beta value is 87.39 that means the slope for foreign direct investment and 29290.90 is the constant for the regression line. Therefore, we can draw a regression line from the table as follows: Y= 87.39X + 29290.90 and determining the FDI is significant where the significant value was 0.046 and value of t is 2.67. Therefore, hypothesis 1 (H_1) is accepted.

Table 3: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.838[a]	0.703	0.604	20678.98

a. Predictors: (constant), FDI

Table 4: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3036905262.36	1	3036905262.36	7.10	0.046[b]
	Residual	1282860784.44	3	427620261.48		
	Total	4319766046.80	4			

a. Dependent Variable: GDP
b. Predictors: (constant), FDI

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	29290.90	54783.53		.54	.63
	FDI	87.39	32.79	.84	2.67	.046

a. Dependent variable: GDP

Impact of FDI on Export

The value of R (Correlation Coefficient), R square and Adjusted R square (Coefficient of Determination) are shown in table 6. The values of (R) are .808 and R square is 0.653 and from this we can conclude that the independent variables (foreign direct investment) can explain or account for 65.3 % variation in the dependent variable (gross domestic product). To put it in another way, the remaining portion (1- 0.653) or 0.347% of the variation is due to other sources that means is changed by other factors, such as random error or variables which are not included in the study.

Adjusted R square: The adjusted R square measures the strength of the relationship between independent variable (FDI) and dependent variable (GDP). Here the value of adjusted R square is 0.537 or 53.7% in one side. The adjusted R square indicates that the independent variable account for 53.7% of the variance of dependent variable.

Standard Error: The value is 2610.28 shows the amount of variability of predicted result and the actual result acquired from the real observation.

Table 7 indicates that F value is 5.64 and significant at 0.098 levels, so Export is affected by the value of FDI inflows.

Table 8 shows the regression coefficient and Beta value of the linear equation for GDP growth with FDI. Here Beta value is 9.83 that means the slope for foreign direct investment and 15681.06 is the constant for the regression line. Therefore, we can draw a regression line from the table as follows: Y= 9.83X + 15681.06 and determining the FDI is significant where the significant value was 0.098 and value of t is 2.37. Therefore, hypothesis 2 (H_2) is accepted.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	0.808[a]	0.653	0.537	2610.28

a. Predictors: constant: FDI

Table 7: ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
2	Regression	38402920.79	1	38402920.79	5.64	0.098[b]
	Residual	20440700.01	3	6813566.67		
	Total	58843620.80	4			

a. Dependent variable: Export
b. predictors: constant: FDI

Table 8: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	15681.06	6915.25		2.27	0.11
	FDI	9.83	4.14	0.81	2.37	0.098

a. Dependent variable: Export

Impact of FDI on Investment

The value of R (Correlation Coefficient), R square and Adjusted R square (Coefficient of Determination) are shown in table 9. The values of (R) are 0.839 and R square is 0.704 and from this we can conclude that the independent variables (foreign direct investment) can explain or account for 70.4 % variation in the dependent variable (gross domestic product). To put it in another way, the remaining portion (1- 0.704) or 0.296% of the variation is due to other sources that means is changed by other factors, such as random error or variables which are not included in the study.

Adjusted R square: The adjusted R square measures the strength of the relationship between independent variable (FDI) and dependent variable (GDP). Here the value of adjusted R square is 0.605 or 60.5% in one side. The adjusted R square indicates that the independent variable account for 60.5%of the variance of dependent variable.

Standard Error: The value is 6343.87 shows the amount of variability of predicted result and the actual result acquired from the real observation.

Table 10 indicates that F value is 7.14 and significant at 0.046 levels, so investment is affected by the value of FDI inflows.

Table 11 shows the regression coefficient and Beta value of the linear equation for GDP growth with FDI. Here Beta value is 26.88 that means the slope for foreign direct investment and 5500.27 is the constant for the regression line. Therefore, we can draw a regression line from the table as follows: Y= 26.88 X + 5500.27 and determining the FDI is significant where the significant value was 0.076 and value of t is 2.67. Therefore, hypothesis 3 (H_3) is accepted.

Table 9: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	0.839[a]	0.704	0.605	6343.87

a. predictors: (constant), FDI

Table 10: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
3	Regression	287310190.81	1	287310190.81	7.14	0.046[b]
	Residual	120734143.19	3	40244714.40		
	Total	408044334.00	4			

a. Dependent variable: investment
b. Predictors: (constant) FDI

Table 11: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5500.27	16806.42		0.33	0.77
	FDI	26.88	10.06	0.84	2.67	0.076

a. Dependent variable: investment

Test of the Variables

Here two variables FDI and GDP have been used to analyze and showing the impact of FDI on GDP. Mean value of GDP is 173190.2 and variance is 107994.15. On the other hand, mean value of FDI is 1646.71 and variance is 99422.80. Table 12 shows that p value (one tail) is 0.0001 and p value (two tail) is 0.0003 which is less than 0.05. Again, t stat is 11.67 for 5 samples. The t-test indicates that FDI has significant positive relationship with GDP. GDP is influenced by FDI inflows.

In table 13, two variables FDI and investment have been used to analyze and showing the impact of FDI on investment. Mean value of investment is 49761 and variance is 102011084. On the other hand, mean value of FDI is 1646.71 and variance is 99422.80. P value (one tail) is 0.0001and p value (two tail) is 0.0003 which is less than 0.05. Again, t stat is 10.94 for 5 samples. The t-test indicates that FDI has positive relationship with investment.

Thus, the overall result indicates that FDI has positive relationship with investment, GDP growth and export. Therefore, it can be concluded that FDI has positive and significant relationship with economic growth. And this result is in consistent with Emmanuel Isaac John (2016) as he also found a positive association with FDI and economic growth in his study whereas Sung-Ming (2014) found reverse relationship. Moreover, the result is also supported by the researches of Sanchez-Robles (1997), Asogwa and Osondu (2014), Louzi and Abadi (2011), Ali and Hussain (2010).

Table 12: t-test between GDP and FDI

	GDP	FDI
Mean	173190.2	1646.71
Variance	107994.15	99422.80
Observations	5	5
Hypothesized Mean Difference	0	
Df	4	
t Stat	11.67	
P(T<=t) one-tail	0.0001	
t Critical one-tail	2.13	
P(T<=t) two-tail	0.0003	
t Critical two-tail	2.78	

Source: Authors own calculation

Table 13: t-test of FDI and investment

	Investment	FDI
Mean	49761	1646.71
Variance	102011084	99422.80
Observations	5	5
Pearson Correlation	0.84	
Hypothesized Mean Difference	0	
Df	4	
t Stat	10.94	
P(T<=t) one-tail	0.001	
t Critical one-tail	2.13	
P(T<=t) two-tail	0.0003	
t Critical two-tail	2.78	

Source: Authors own calculation

Implementations of the Study

From the above analysis, it is found that there is a linear relationship between Foreign Direct Investment and Gross Domestic Product that means with the increase or decrease of the FDI value GDP is also fluctuated and the values of (R) are 0.838 and R square is 0.703 that means the independent variable FDI has significant and positive relationship with GDP. Again, the values of (R) are 0.808 and R square is 0.653 that means the independent variable FDI has significant and positive relationship with export and the increase or decrease of the FDI value influences the value of export. Moreover, the values of (R) are 0.839 and R square is 0.704. The independent variable FDI has significant relationship with investment. Mean value of GDP is 173190.2 and variance is 107994.15. On the other hand, mean value of FDI is 1646.71 and variance is 99422.80. The findings also reveal that p value (one tail) is 0.0001 and p value (two tail) is 0.0003 which is less than 0.05. The value of t stat is 11.67 and the t-test says that FDI has significant positive relationship with GDP. Here, we consider GDP, export and investment as the indicators and measurements of country's economic growth. Thus, the independent variable FDI has positive and significant impact on GDP, export and investment. That means our economic growth is influenced positively by its foreign direct investment inflows greatly. Furthermore, this study will be helpful to provide critical information and deep understanding regarding foreign direct investment and its potentiality to Bangladeshi policy decision makers and potential investors to take an informed decision with respect to attractive investment sectors as well as policies in fostering foreign investors to appoint into the country. Moreover, policy makers and FDI analysts will be able to realize which sectors should be given more priority for promoting FDI among all economic sectors. Again, this study will help the researcher to gather knowledge regarding Foreign Direct Investment.

CONCLUSION AND RECOMMENDATIONS

The result reveals that FDI has significant and positive impact on Export, FDI has significant positive relationship with GDP and FDI has positive relationship with investment. Therefore, it can be concluded from the study that foreign direct investment has significant and positive impact on the economic growth of Bangladesh. Foreign direct investment has a potential to the development of an economy. Developed and developing countries are moving to the capital intensive countries due to rise of labor and manufacturing cost. On the other hand, multinational and transnational companies always seek new market to manufacture and sell at reasonable and competitive price in the local market or export at foreign market. Both of these two aspects recommend that Bangladesh is a promising and attractive location. Every year USA, china, Japan, Korea, UK, Switzerland, Malaysia, France, Germany invest in Bangladesh highly. Recently EPZ is the burning example in the regard. There are some issues that cause failure to attract foreign investment namely political unrest, service facilities, investment environment etc. It is high time for Bangladesh to promote its existing strength and opportunities to attract foreign investors. FDI helps in creating new employment opportunities, export earnings, technology advancement, increasing managerial knowledge, improving living standard and poverty alleviation. Effective measurement should be taken and properly implemented to accelerate FDI inflows by the government, Board of Investment and other investment agencies. Good governance, accountability, transparency, political stability should be ensured. The process of investment procedures should also be simplified. Though there are some negative impacts of FDI namely monopoly market, missing tax revenues, possible environmental damage, incentive tourism etc. This negativity has to be uprooted with due care. Following recommendations are being offered in this respect,

1) Ensured political stability
2) Good governance practice
3) Accountability and transparency
4) Independent government agencies
5) Developing diplomatic relations
6) Power and energy supply/ quality of service
7) Incentive for foreign investors
8) Improving infrastructural facilities
9) Bureaucratic relationship with FDI
10) Rationalization of tariffs, elimination of non-tariff barriers.

Future Research Directions

The study is totally secondary data based. Obtaining data regarding to FDI is being difficult from different sources like Bangladesh Bank, Bangladesh bureau of statistics, Bangladesh Board of Investment (BOI) as their data are different from each other in most cases. Data are also retrieved from newspaper, different journals, articles and reports although data collected from Bangladesh bank and economic review and statistical yearbook have been given priority in the study. This study is examining the impact of FDI on the economic growth of Bangladesh and has been conducted for a sample of only six years, so exact result or representation of economy may not be provided. So, anyone can take into consideration 10 years or 15 years data to identify the association and will provide more fruitful result. In the study we only consider GDP, export and investment as the independent variables but In future, this study can be expended considering other factors affecting the economic growth of Bangladesh such as employment rate, foreign exchange rate and level of poverty etc. Our study confined to identify the impact of foreign direct investment only in Bangladesh perspective. Therefore, cross cultural data can be used to expand the study by considering some other countries which can make the analysis more fruitful. This study will be helpful to the future researcher by the sense that the report has been used statistical tools like t-test which was not used by any others whereas any one can also expand the research by adding some other statistical techniques too.

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