FOREIGN DIRECT INVESTMENT IN BANGLADESH: ANALYSIS OF SECTOR WISE IMPACT ON ECONOMY

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ABSTRACT

Foreign direct investment is an important indicator of economic growth in any country especially developing and under developing countries which can make substantial progress in reducing poverty, supported by sustainable economic growth. Furthermore, the attraction in sector-wise investment in a country may generate a higher GDP growth rate. Keeping it in cognizance, this study examines the impact of sector-wise foreign investment on the economy of Bangladesh. To achieve the aim, Foreign Direct Investment data were collected from the survey report (2017) of the statistics department, Bangladesh Bank and Bangladesh economic review. For the fruitful study, the research work used descriptive analyses and multiple regression analyses to determine the impact of sector-wise FDI on economic growth. The growth rate over last 17 years of the foreign investment analysis indicates that highest growth was taken place in 'Manufacturing' sector followed by 'Trade & Commerce' and 'Transport, Storage & Communication' sectors which amount the rate 46.34, 21.74 and 21.66 per annum respectively. Whereas the multiple regression analyses indicate that FDI in the sector of 'Services', 'Trade & Commerce' and 'Transport, Storage & Communication' had the statistically significant effect on economic growth in Bangladesh. This finding suggests that a large part of the outcome of foreign investment may be due to the structuring influence of investment in trade, transport and energy sector in the forms of production.

Keywords: FDI, GDP, Sector-wise Investment, Bangladesh.

INTRODUCTION

Foreign Direct Investment (FDI) is the key source for general improvement of a creating nation like Bangladesh. Investment in various segment of a nation must be required for enhance the financial development of a developing nation. In the time of globalization, FDI offers an exceptional open door for creating nations to accomplish quicker monetary development. Economic advancement of a nation like Bangladesh can be accomplished through expanding production capacity in the forms of investment.

Foreign investment plays an important role to increase GDP for last two decades in Bangladesh. FDI gives genuinely necessary assets to create in such way as technology, capital, administrative aptitudes, entrepreneurial capacity and access to universal markets. These previously mentioned factors are basic for creating nations to industrialize and to develop by making opening for work. Therefore, the vast majority of the creating nations understand the significance of FDI for economic development. Factors that hinder FDI flows include regulatory burden and lack of adequate physical infrastructure, among others (Basnet& Pradhan, 2014).

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Foreign investment gives to the host nation better access to outside business sectors. Additionally, where the foreign investment has been made with the particular goal of sourcing segments from the host nation to exploit ease conditions there and it adds to trades straight forwardly. This is especially important for those countries which havea small self-market and must increase exports vigorously to maintain their tempo of economic growth.

FDI is a monetary pointer which has the effect on our economy specifically and in a roundabout way. The vast majority of the financial segments are managed by FDI in Bangladesh. From those segments we can get the economic yield which has a commitment on the GDP. In this way, FDI and GDP have an immediate and circuitous relationship in a nation. The investigation will assist the Government and strategy creator with seeking out the most imperative division which has more effect on the economic development.

PREVIOUS STUDY

Amid the post-liberalization period, the specialists found an insufficient part of FDI in advancing economic development in developing nations. As a matter of fact, in the post-liberalization period nations are in the underlying phase of improvement and they got moderately little measure of FDI due to their poor physical foundation, incompetent human capital and do not have the potential abilities to pull in FDI. They likewise found that FDI has not been the main cure-for development in these nations.

Foreign Investment can assume a huge part in modern advancement and monetary development in the developing nations (Mottaleb, 2007). In this examination he found that the best FDI beneficiary nations in 2005 have immense local market with high GDP development rate. These nations have additionally current framework like phone, web, low start-up cost and business benevolent condition empower FDI inflow into the developing nations. FDI likewise may add to achieve financial development in the developing countries. In addition, FDI builds government income profit by means of duty and VAT, expanding GDP development; give money from outside the nation to grow new areas, increment per capita pay by utilizing neighborhood workforce, business age of a nation. FDI positively affects adjust of installment; diminish import by creating import substitute items and spare remote trade. FDI lightens neediness and encourage monetary improvement of host nation.

FDI affects financial development by means of higher effectiveness of human capital as opposed to capital collection (Borensztein et al., 1998). Through FDI, new advancements exchange to the host nations and consequently, the preparation required set up the work power to work with new advances. It was discovered that the gifted human capital, amazing budgetary market and the open exchange rules play positive connection between FDI and EG (economic growth). On the contrary if the above things are not accessible in the host nation, FDI may assume a negative part.

Foreign investment can bring numerous points of interest for outside financial specialists among which, the most essential are: investment funds in transport costs (both, inputs and completed items), lower labor cost, accessible framework, reserve funds in traditions expenses and commitment on imported products, nearer position to the clients, the likelihood of fast and effective conveyance, and accessibility of data about inclinations and plausibility for quick appropriation of items as per advertise necessities. Denisia (2010) stated that in order to understand foreign direct investment, one “must firstunderstand the basic motivations that cause a firm to invest abroad ratherthan export or outsource production to national firms”

Ang (2009) examined that the impact of FDI on the economy of Thailand by controlling for the level of financial development. FDI states a negative impact on yield over the long haul.

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While the outcomes demonstrate that FDI has no immediate constructive outcome on yield, it has a circuitous impact in invigorating monetary advancement in Thailand through budgetary segment improvement. Rahman (2015) analyzed the connections between FDI and GDP development rate, FDI and Inflation rate, and also FDI and Balance of Trade were examined in light of the time arrangement information from 1999 to 2013 utilizing Pearson correlation to depict the quality and heading of the straight connection between independent (FDI) and dependant (GDP development) variable. It was demonstrating moderate positive relationship between FDI and GDP development. The present study makes it possible to draw specific policy implications for Bangladesh.

MATERIALS AND METHODS

Data for this investigation were acquired from the site of Bangladesh Bank, Ministry of Finance (Bangladesh Economic Review), Bangladesh Bureau of Statistics, Bangladesh Investment Development Authority (BIDA). Sector wise FDI trend and potential sector were analyzed based on previous record and current export earnings of this sector. Descriptive statistics was used to identify sector wise highest investment. Moreover, trend analysis was considered to find the sector wise growth rate of foreign investment. In addition, multiple regression method was employed to find the most important significant sector of investment.

TREND OF FDI INFLOW INTO BANGLADESH

From the inception of independence, Bangladesh started to draw in FDI for monetary improvement. Bangladesh has long been aware of the importance of FDI. Throughout the previous two decades, the stream of FDI into Bangladesh extensively expanding due to giving of some facilities to the foreigninvestor, for example, corporate tax holiday, evasion of twofold tax assessment, holiday for infrastructure investment,cash incentives and export subsidies, Remittance of sovereignty, specialized know-how and technical assistance fees and many more.

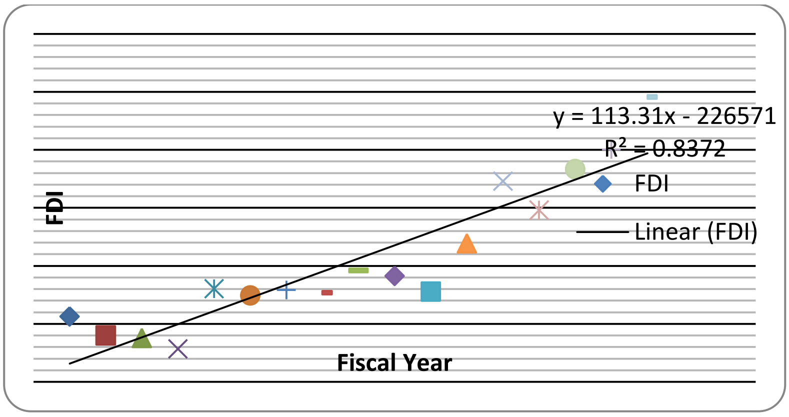
Table 1: FDI inflow (net) in million USD from 2001 to 2017 in Bangladesh

Fiscal Year	FDI Inflow(In Million USD)	Fiscal Year	FDI Inflow(In Million USD)
2001	563.93	2010	913.02
2002	400.93	2011	779.04
2003	379.18	2012	1,194.89
2004	284.16	2013	1,730.63
2005	803.78	2014	1,480.34
2006	744.61	2015	1,833.87
2007	792.74	2016	2,003.53
2008	768.69	2017	2,454.81
2009	960.59		

(Source: Bangladesh Bank)

Bangladesh offers numerous financial and non-monetary motivations/offices to the outside investors since she is endeavoring to be a reasonable nation for FDI. The aggregate FDI inflow is expanding over the period. In the fiscal year 2001 FDI Inflow was 563.93 USD million. After that the inflow was decreased in the fiscal year 2002 and the amount was 400.93 USD million. Amid the time 2001-2004, normal FDI inflow was about 200-600 USD million and in that time FDI was all the more fluctuating. Again, between 2005 to 2011 fiscal year, the FDI inflow was roughly between 700-1000 USD million. In the 2012, FDI inflow was 1194.89 USD million after that FDI was altogether expanding. In the fiscal year 2016 FDI inflow was 2003.53 USD million and in 2017, Bangladesh got 2454.81 USD million which is the most astounding FDI inflow into Bangladesh over the last research period. The figure1 demonstrates the graphical presentation of FDI inflow in Bangladesh. The diagram demonstrates that the rate of foreign investment was 113.3 USD million per annum in Bangladesh in the study time period.

Figure 1: Trend line of FDI inflow (net) from 2001 to 2017



CONTRIBUTION OF FDI TO GDP

Despite the fact that numerous facilities are given by the Government to the foreign investors however the stream of FDI isn't acceptable level still. But, there has been dependably a solid positive relationship between FDI and GDP. In the event that foreign investment increases, it will affect on GDP. In Bangladesh, FDI forms a low offer in GDP changed varied between 1.78% in fiscal year 2001 and 0.68% in 2004.In the year 2005, the share rose to 1.73%.But after that the share of FDI in GDP was persistently diminishing over the period. In 2016, the percentage of FDI in GDP was 0.92; however the most elevated FDI inflow happened in the year 2017 which was 2454.81 USD million, which is 1% of GDP in Bangladesh.

Table 2: Share of FDI in GDP from 2001 to 2017

Fiscal year	FDI Inflow(In Million USD)	GDP(In Million USD)	percent of GDP
2001	563.93	31,693.25	1.78
2002	400.93	34,150.13	1.17
2003	379.18	37,572.50	1.01
2004	284.16	41,621.63	0.68
2005	803.78	46,338.38	1.73
2006	744.61	60,292.13	1.24
2007	792.74	68,725.00	1.15
2008	768.69	78,585.25	0.98
2009	960.59	88,134.00	1.09
2010	913.02	99,692.38	0.92
2011	779.04	114,478.63	0.68
2012	1,194.89	131,900.50	0.91
2013	1,730.63	149,865.38	1.15
2014	1,480.34	167,959.25	0.88
2015	1,833.87	189,475.25	0.97
2016	2,003.53	216,608.00	0.92
2017	2,454.81	244507.00	1.00

(Source: Bangladesh Bank & Bangladesh Economic Review)

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Thus, as the share of investment is low in GDP, the concerned authority should try to focus in different sectors to increase the investment and try to attract foreign investor in Bangladesh.

SECTOR WISE FDI INFLOW IN BANGLADESH

Agricultural sector has a significant contributor to the economy of a developing country, especially in terms of employment generation and national output (Izuchukwu, 2011). In the study he found that there is a positive relationship between Gross Domestic Product (GDP) and the three independent variables (Domestic Saving, Government Expenditure on Agriculture and Foreign Direct Investment on Agriculture). The findings confirm the positive development witness by the agricultural sector is developing rapidly making the sub sector production very vibrant in the economy.Table-3 indicates that the average FDI inflow on Agriculture and Fishing sector was 17.28 USD millionfrom fiscal year 2001 to 2017, upper limit was 49.50 USD million in 2012 and lower limit was 0.95 USD million in 2002.

Table 3: Sector wise FDI inflow (Amount in Million USD) in Bangladesh, FY 2001- FY 2017

Fiscal Year	Agriculture & Fishing Sector	Manufacturing Sector	Power, Gas & Petroleum Sector	Services Sector	Trade and Commerce Sector	Transport, Storage & Communication
2001	15.72	183.95	313.78	9.83	35.25	5.40
2002	0.95	143.99	176.12	3.86	55.30	20.71
2003	2.41	196.22	58.07	11.50	49.24	61.74
2004	4.11	90.94	87.44	2.60	55.31	43.46
2005	2.07	235.51	198.40	2.04	101.80	263.96
2006	1.37	120.94	209.32	1.07	142.19	269.01
2007	4.57	147.46	229.93	1.82	103.84	305.12
2008	3.65	128.92	157.92	7.02	171.26	299.92
2009	19.14	183.96	46.89	7.77	122.53	579.62
2010	10.95	233.74	73.66	19.68	128.80	445.99
2011	11.53	330.25	127.19	20.39	234.82	54.50
2012	49.50	414.98	244.94	32.60	272.75	179.04
2013	29.72	712.88	93.67	65.18	295.05	527.09
2014	28.99	757.47	50.43	77.39	276.86	272.54
2015	29.22	539.28	279.98	57.00	436.88	183.20
2016	36.57	825.85	430.16	92.83	320.93	273.61
2017	43.26	869.43	467.93	104.44	309.73	601.28
Mean=	17.28	359.75	190.93	30.41	183.09	258.01
Max=	49.50	869.43	467.93	104.44	436.88	601.28
Min=	0.95	90.94	46.89	1.07	35.25	5.40

Table 3 shows that average FDI inflow on manufacturing sector was 359.75 USD million from fiscal year 2001 to 2017, Maximum was 869.43 USD million in 2017 and Minimum was 90.94 USD million in 2004.Anowor et al. (2013) in their study found that Foreign Direct Investment in manufacturing sector has a positive effect on economy growth. Figure-2 shows that average growth rate per annum in manufacturing sector is 46.348 USD millionover the study period in Bangladesh.

The average FDI inflow in Power, Gas and Petroleum sector was 190.93 USD million from 2001 to 2017, Maximum was 467.93 USD million in 2017 and Minimum was 46.89 USD million in 2009. The rate of increment of FDI in Power, Gas & Petroleum sector is 8.7159 over per annum in Bangladesh.

FDI inflow in of Services sector was 30.41 USD million from 2001 to 2017 on an average, Maximum was 104.44 USD million in 2017 and Minimum was 1.07 USD million in 2006.The rate of increment of FDI in Services part is 5.9401 USD million over per yearly.

The average FDI inflow in Trade and Commerce was 183.09 USD million from 2001 to 2017, Maximum was 436.88 USD million in 2015 and Minimum was 35.25 USD million in 2001.The figue-2 demonstrates that the rate of increment of FDI in Trade and Commerce part is 21.748 USD million over per year.

FDI always helps to create new employment and the inflow of FDI in service sectors and construction and development sector, which help to attain substantial sustainable economic growth and development through creation of jobs (Vyas, 2015). The average FDI inflow in Transport, Storage & Communication sector was 258.01 USD million from 2001 to 2017, Maximum was 601.28 USD million in 2017 and Minimum was 5.40 USD million in 2001. The rate of increment of FDI in Transport, Storage & Communication sector is 21.664 over per annum.

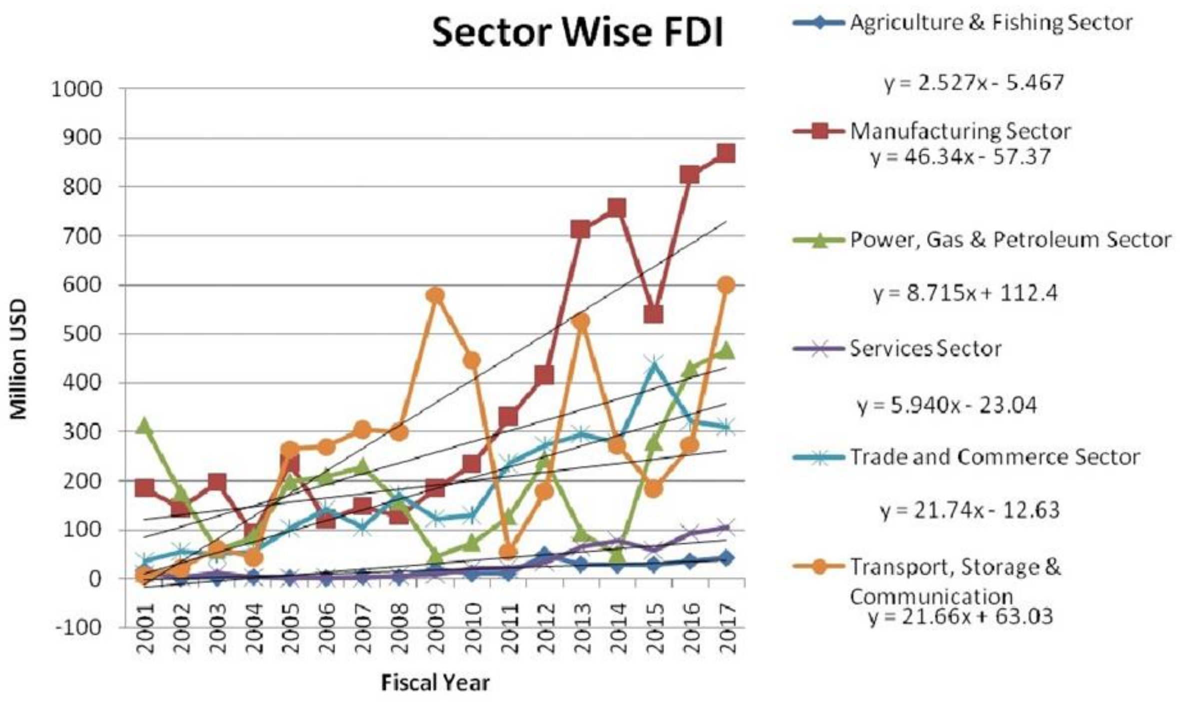

Figure 2: Sector Wise Trend line of FDI in Bangladesh, 2001-2017.

The figure-2 suggests that the rate of increment of FDI in Agriculture & Fishing sector is 2.5273 USD million per annum over the period 2001-2017.

FITTING OF REGRESSIOJ MODEL

With a view to analyzing the important sectors of FDI flows in Bangladesh, an econometric exercise has been undertaken. It is based on six important sectors in Bangladesh. ANOVA test is used when variables have more than two categories. The purpose is to show that an often-used statistical test-the standard FDI effect in ANOVA-can be quite inappropriate to the situation. If an overall F is used to test for unidirectional change across several sectors, the actual probability of type I error is far below the nominal level, while the probability of type II error is inordinately.

The model is based on the following specification

$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \beta_6 X_{6t} + u_t$

Where, Y = Gross Domestic Product; X_{1t} = Agriculture & Fishing; X_{2t} = Manufacturing; X_{3t} = Power, Gas& Petroleum; X_{4t} = Services; X_{5t} = Trade & Commerce and X_{6t} = Transport, Storage& Communication

From the table 4, it is seen that the selected independent variables had significant influence on GDP in Bangladesh. Outcome of this analysis is in complete harmony with theoretical framework. Furthermore, this study identifies and confirms that the FDI exerts an impact on the economy of Bangladesh.

Table 4: Analysis of variance of sector wise FDI effect on economy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71118302372.298	6	11853050395.383	82.689	.000
	Residual	1433454162.644	10	143345416.264		
	Total	72551756534.942	16			

Table-5 demonstrates the sector wise impact of FDI on economy. It is found that foreign investment in 'service' and 'Trade & Commerce' and 'Transport, Storage& Communication' had statistically significant effect on GDP of Bangladesh. Among them 'Trade & Commerce' had strong significant effect on economy. FDI inflow affects the growth of services in Bangladesh. One of the main causes for the tremendous growth of the services export and the service sector as a whole is the inflow of FDI.

Table 5: Coefficients of Regression in sector wise FDI in Bangladesh

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	27225.461	12042.665		2.261	.047
Agriculture & Fishing	233.328	352.203	.055	.662	.523
Manufacturing	-121.445	70.252	-.492	-1.729	.115
Power, Gas& Petroleum	25.579	29.371	.048	.871	.404
Services	1829.065	545.956	.949	3.350	.007
Trade & Commerce	250.856	45.621	.442	5.499	.000
Transport, Storage& Communication	46.390	17.548	.132	2.644	.025

Experimental research in a few nations recommends that the underlying of FDI tends to expand the host nation's imports. One reason for this is fundamentally organizations have high inclinations to import capital and intermediate products also, administrations that are not promptly accessible in the host nation. Overall FDI into Trade and Commerce sector has the greatest effect on economic growth of that sector (sectorial GDP) as well as for the total GDP. Productivity in the economy as a whole had risen in with FDI inflows in 'Transport, Storage& Communication' sector. Investment of FDI in communication sector, particularly the Mobile Phone Services (MPS) market continued to derive the telecommunications

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industry as strong which led to the high growth of post and telecommunication sub-sector in Bangladesh.

CONCLUSION

Bangladesh economy has been becoming relentlessly growing over the period regardless of slowdown in the worldwide economy. Bangladesh economy has been developing at 6%-7% amid the most recent 17 years. It shows that the economy of our nation is growing up step by step. Also, Bangladesh needs more store to build its GDP. This exploration has effectively uncovered the need for the appropriate conveyance of sector wise FDI inflow and need of expanding the screen by the specialist for those parts where the aggregate yield is relatively low. FDI impacts positively on the economy. In any case, Government should give more facilities to foreign investors to boost economy, for example, guarantees greater security to foreign investors, supply local talented individuals by the administration, improvement of know-how, enhancing the nature of the present workforce, enhancing the picture of our nation and infrastructural advancement.

Foreign direct investment has increased in Bangladesh, particularly in energy, telecom and stock market. The advantages of FDI as far as physical capital development, exchange of innovation, and know-how are adequate to legitimize maintaining these streams. Capital controls are not the response to a rising stream of FDI. The regulatory body like Board of Investment and other government and non-government institution should take proper step to remove the obstacles in the way of foreign direct investment. To increase FDI inflows government should remove the barriers as policy discrepancy, corruption, poor governance and administrative hassles, and especially complex bureaucratic procedure.

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