 

# Impact of FDI and Joint Venture on Employment Generation: A Multi-sector Experience of Bangladesh Economy

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**Abstract**
Foreign Direct Investment (FDI) is very crucial for the sustainable development of developing countries in general and in specific for LDCs-like Bangladesh. For Bangladesh, inflow of foreign direct investment is the major stimulus for the sturdy and long-standing economic growth which is subject to the improvement of many socio-economic and political factors. As a promising hub for foreign direct investment, Bangladesh has already conquered popularity for its simplistic, liberal and most investments friendly climate throughout the globe. Being an open, flexible and promising destination for foreign direct investment, Bangladesh has been drawing attention of the global investors into a focal investment destination within South-Asian region. Its investment climate is mostly featured by munificent and alluring packages of incentives to investors. In addition, there is no discrimination between the local and foreign investors in facilitating the incentives they owe from the investment destination. The existing rules and regulations are structured in such a way so as to fully guarantee the safety of the incoming investment and their returns with gained profit or surplus. The positive and ensuring economic growth brings dramatic changes in the employment scenario of a country. The increased flow of foreign direct investment into multifarious sectors namely Agricultural, Chemical, Engineering, Textile and Service sectors significantly trims down the unemployment predicament of our country. Bangladesh has a large pool of vibrant young working force that is highly trained and skilled enough to cater the demands of the globalized world. Due to global economic recession of 2008, the financial markets were crashed jobs disappeared and growth took a sharp plunge in much of the developed world and its ripple effects were felt in the other parts of the globe. Though, many economists forecasted that Bangladesh would be severely affected by this speedy storm. Rather, the economy Bangladesh demonstrated extraordinary resilience, driven by sound macroeconomic policies, dynamic pool of private entrepreneurs and productive labour force. New and dynamic opportunities are emerging for foreign direct investment (FDl) in the traditional and emerging sectors while significantly improving involvement of female into the workforce.

**Keywords:** FDI, Joint Venture Investment, Sectoral Investment, Employment Generation.

## 1.0 Introduction

The inward trend of FDI (Foreign Direct Investment) is significantly growing into multi-dimensional sectors of our country. This scenario is the upshot of the alluring incentives and supports provided to the foreign investors by the consecutive governments of Bangladesh. FDI, in its nature, is an international account that reflects acquiring a long-lasting interest by a resident entity of one country into a resident entity of another country. According to IMF definition, "A direct investment enterprise is an incorporated or unincorporated enterprise in which a direct investor owns 10 percent or more of the ordinary shares or voting power for an incorporated enterprise or its equivalent for an unincorporated enterprise" (IMF, Balance of Payment Manual, 5th addition, 1993, page-86). The inward FDI is comprised of Equity capital, Reinvested earnings and Intra-company loans. The term FDI differs from Joint Venture, the latter represents the joint investment by the host country investor and foreign investor. As a developing country, Bangladesh has been prioritizing and welcoming the foreign investment since its inception in 1971. Our country has already turned into one of the most promising hub for foreign direct investment within South-Asian bounds. Among others, the major fiscal incentives of FDI are namely, corporate tax holiday for 5 to 7 years, reduced tariffs on imports of raw materials, bonded warehouse facility, accelerated depreciation on cost of capital machinery, tax exemption on capital gains of shares, reduced corporate tax for 5 to 7 years instead of tax holiday etc. In addition to that, allowing 100% foreign equity, unrestricted exit policy, Remittance of royalty and fees for technical know-how, rewarding citizenship by investing US$ 5,00,000 and permanent resident permits by investing US$ 75,000 only, are the most enticing rewards for foreign investors. Lately, Bangladesh declared sixteen areas as the "Thirst sector' of the economy in order to attract more foreign direct investment. These "thirst sectors" are namely Agriculture, Artificial

 

flower-making, Computer software and information technology, Electronics, Frozen foods, Floriculture, Gift items, Infrastructure, Jute goods, Jewellery and diamond cutting and polishing, Leather, Oil and gas, Sericulture and silk industry, Stuffed toys, Textile and finally Tourism. Whereas, four sectors are reserved for only public sector investment namely, Arms and ammunition and other defence related equipment, Forest plantation and mechanized extraction within the boundary of reserved forests, the production of nuclear energy and finally Security printing and minting. However, FDI is discouraged in Ready-made garments and Banks, insurance business and other financial institutions. In this paper, we focused to find the fact how inward FDI and Joint venture generates employment opportunities in diverse sectors of our economy. Moreover, we devoted our efforts to forecast whether there is significant correlation between FDI and

## 2.0 Literature Review:

Foreign direct investment (FDI) is the very process by which an investor of a foreign country acquires asset in another country for controlling the production, distribution related issues of a service or product in another country or for getting ownership stakes (Bartels, 2000). Two common features of foreign direct investment (FDI) is the longer-term lasting relationship with controlling interest (Brewer, 1993). FDI certainly enforces some controlling interest – discretionary decision-making ability regarding important strategic issues and determination of corporate tactics (Djankov, 2000). FDI is a longer-run format of investment in comparison to portfolio investment which is considered to have much more volatility and higher turnover of assets. Interest in FDI is skyrocketing in the academic arena for different reasons – FDI is treated in an ambivalent fashion in LDC countries since some academicians believe that it is the major engine of growth; FDI had been considered as the least volatile source of foreign investment; finally FDI is going to play a very vital role in transforming the economies of the communist blocks (Gani, 1999). From investors perspective FDI can be segregated into three types – horizontal FDI, vertical FDI and conglomerate FDI. In case of horizontal FDI, investors undertake the investment for producing the similar genre of product or service in both the host and home country (Hill and Athukorala, 1998). In case of vertical FDI, investors undertake the investment for vertical backwardation or forward backwardation. From the host country's perspective FDI are of three types – import-substituting FDI, export-increasing FDI and government initiated FDI. Finally, FDI can be classified as expansionary FDI and defensive FDI (Jayaraman, 1998). In case of expansionary FDI, the firm will try to exploit the firm-specific advantages in the home country. In case of the defensive FDI – the investor will try to exploit the cheap labor of the host country.

Joint venture is the form of business agreement where different parties form up a business enterprise by contributing equity into the business by sharing equity and ownership. Formation of a joint venture is a hectic job and needs to be very precise from all respects (Loewendahl, 2001). Joint ventures are of three types – contractual joint venture, corporate joint venture and unincorporated joint venture. In case of contractual joint venture – the agreement is relative short-termed and specific to a specified sector of the business conduction (Oman, 2000). In case of corporate joint venture a separate entity is formed and a separate contract is honored. Unincorporated joint venture is similar to corporate joint venture which is separate from co-venture's respective business (Schive, 1990).

A significant portion of the economic growth in the developing part of the world is largely attributed to the shift in agricultural and informal services and even more important has become the capability of the industrial sector to absorb the excess volume of labor (Stopford, 1991). The number of people working outside the agricultural sector and informal sector can largely be attributed to the extent of FDI and joint venture. FDI and joint venture enhances both the firm-specific and country-specific assets – host country's competitive environment is improved because of the introduction of newer technology and better state-of-art; the foreign firm can exploit the cheap labor and raw materials of the home country (Sun, 1998) . As a result of the FDI and joint venture's introduction in the host country's economy will certainly add the competitive advantage of the economy, expand the production and employment. Even though, majority of the academicians have confirmed about the positive impact of FDI and joint venture over employment – there is a possibility of crowding-out effect (UNCTAD, 2000).

## 3.0 Methodology:

This had been a study highly driven by statistical mechanisms – run test, regression and paired sample t-test. To check out the randomness or to rule out any sort of trend in the data set, run test was used. Regression sorted out any type of mathematical functionality in the data set and paired sample t-test had been used by the researchers to check out whether the gaps between the paired variables were significant or not. The researchers depended on reliable, secondary sources of information and most importantly phenomenology was the research paradigm. No samples were used and the last available year's data set was used by the researcher.

 

The run test is a widely used approach to test and detect statistical independencies (randomness) ignoring any assumption regarding the properties of distribution. A run can be defined as a succession of identical symbols which are followed or preceded by different symbols or no symbol at all. The number of runs is computed as a sequence of the return changes of the same sign (such as; ++++−−−+++−−++++++−−−−). The null hypothesis of the test is that the observed series will be a random series. When the expected number of run is significantly different from the observed number of runs, the test reject the null hypothesis that the data set is random. The cutting point which is used to dichotomize the data set could be specified as a particular number, or the value of a statistic (like mean, median or mode). In this analysis the researcher will use mean as the cutoff point. Cases with values that will be less than the cut point (which is mean in this case) will be assigned to one group, and cases with values that will be greater than or equal to the cut point (which is mean in this case) will be assigned to another group. For each of the data points, the difference $D_i = X_i -$ cut point will be calculated. If $D_i \geq 0$, the difference will be considered positive, otherwise negative. The number of times the sign changes, that is $D_i \geq 0$ and $D_{i+1} < 0$ or $D_i < 0$ and $D_{i+1} \geq 0$ as well as the number of positive ($n_p$) and negative ($n_a$) signs, will be determined. The number of runs (R) will be the number of sign changes plus one. The run test converts the total number of runs into a Z statistic. For large samples the Z statistics gives the probability of difference between the actual and expected number of runs. If the Z value is greater than or equal to1.96, then we should reject the null hypothesis at 5% level of significance. But if the Z value is lower than 1.96, and then we should accept the null hypothesis at 5% level of significance. The Z value is calculated as the difference between the actual and expected number of runs divided by the standard deviation, so $Z = (R- \mu_r)/ \sigma_r$, here $\mu_r$ goes for the expected number of runs and $\sigma_r$ is the standard deviation. Once again, $\mu_r = [2n_pn_a / (n_p + n_a)] +1$ and $\sigma_r$ is calculated as follows: $\sigma_r = \sqrt{[\{2n_pn_a * (2n_pn_a - n_a - n_p)\} / \{(n_p + n_a)^2 * (n_p + n_a - 1)\}]}$

Regression checks out the mathematical relationship or dependency between the dependent and independent variables. For this study the sectoral employment or overall level of employment was the dependent variable and the sectoral or overall inflow of FDI and joint venture was the independent variable. R-square indicates the explanatory power of the factor or factors. Regression co-efficient checks the average change in the independent variable due to one unit change in the independent variable. F-test and associated p- value were used to test the statistical significance of the overall model. On the other hand, t-test associated p- value was used to test the statistical significance of the specific factor. Paired sample t- test were used to check out whether the differences between the paired variable were statistically significant or not.

**4.0 Critical Analysis:**

The analysis portion of the study is highly driven by statistical paradigms. Here, the researchers have tried to pinpoint the evidence of trend or randomness in case the inflow of FDI and joint venture in Bangladesh. The impact of FDI and joint venture as a whole and on sector based ground over the employment generation status have been screened out. Moreover, the researchers have tied to check out whether the FDI and joint venture inflow does differ from statistical point of view or not. Finally, the researcher have tied to check out whether the FDI's and joint venture's impact over employment creation status does differ from statistical point of view or not. The respective time frame is stretched from 2000 to 2010. The researcher will like to start with run test which screens out any sort of randomness in the data set – FDI amount and joint venture volume in this case.

 

**Runs Test**

| | FDI | Joint venture |
|---|---|---|
| Test Value | 644.6364 | 506.4407 |
| Cases < Test Value | 5 | 8 |
| Cases >= Test Value | 6 | 3 |
| Total Cases | 11 | 11 |
| Number of Runs | 2 | 5 |
| Z | -2.537 | .000 |
| Asymp. Sig. (2-tailed) | .011 | 1.000 |

FDI and joint venture inflow into Bangladesh did not follow a random trajectory – this has been the null hypothesis for our study. At a 5% level of significance and using mean as the cut off point - the first null hypothesis is rejected and the second hypothesis is accepted. So, FDI came into Bangladesh at a random basis – too much influenced by the complexity of the external environment. On the other hand, the inflow of Joint Venture did follow a trend – since there was no sign of randomness in the data set.

Now, the researchers will try to explore the impact of FDI in catering job opportunity in Bangladesh. The researchers had used the yearly employment creation status as the dependent variable and yearly FDI inflow as the independent variable. The summarized result is presented in the following table:

| R- Square | F- value | Significance ( F) | Regression co-efficient | T-value | Significance (T) |
|---|---|---|---|---|---|
| .000 | .000 | .988 | .147 | .015 | .988 |

It is evident from the above mentioned table that the explanatory power of the regression is very insignificant since not a single percent of the changes in the employment status of Bangladesh can be explained by the inflow of FDI in Bangladesh. The overall model is proved out to be an insignificant model for prediction purpose because of the very low F-value and the associated very high p-value. The regression coefficient is positive and it is holding the expected sign. But the regression co-efficient is not statistically significant since the t-value is too low and the associated p-value is too high. So, as a whole the contribution of FDI coming to Bangladesh had failed to exert any significant impact over the employment creation status of the country over the last decade.

Now, the researchers will try to explore the impact of joint venture in catering job opportunity in Bangladesh. The researchers had used the yearly employment creation status as the dependent variable and yearly joint venture volume as the independent variable. The summarized result is presented in the following table:

| R- Square | F- value | Significance ( F) | Regression co-efficient | T-value | Significance (T) |
|---|---|---|---|---|---|
| .242 | 2.878 | .124 | 10.436 | 1.696 | .124 |

It is evident from the above mentioned table that the explanatory power of the regression is insignificant since only 24% of the changes in the employment status of Bangladesh can be explained by the inflow of joint venture

 

in Bangladesh. The overall model is proved out to be an insignificant model for prediction purpose because of the low F-value and the associated high p-value. The regression coefficient is positive and it is holding the expected sign. But the regression co-efficient is not statistically significant since the t-value is low and the associated p-value is high. So, as a whole the contribution of joint venture coming to Bangladesh had failed to exert any significant impact over the employment creation status of the country over the last decade. But in terms of the comparative F- test and T-test significance level, it had been evident that the impact of joint venture in creating employment is far more ground breaking than the case with FDI.

Now, the researcher will try to sort out the impact of sector based yearly FDI inflow over the yearly sector based employment status. The yearly sector based employment status had been the dependent variable; on the other hand, yearly FDI inflow had been used as the independent variable:

| Dependent variable | Independent variable | R-Square | F-value | Sig (F) | Regression co-efficient | T-Value | Sig (T) |
|---|---|---|---|---|---|---|---|
| Textile-Employment | Textile – FDI | .815 | 39.625 | .000 | 390.96 | 6.295 | .000 |
| Agro- Employment | Agro-FDI | .31 | 4.049 | .075 | 141.765 | 2.012 | .075 |
| Chemical-Employment | Chemical-FDI | .684 | 19.469 | .002 | .785 | 4.412 | .002 |
| Engineering - Employment | Engineering - FDI | .315 | 4.146 | .072 | 68.23 | 2.036 | .072 |
| Service - Employment | Service - FDI | .322 | 4.266 | .069 | 2.163 | 2.065 | .069 |

It is evident from the above mentioned table that the response of FDI inflow in different sector of the economy in terms of employment generation has been quite mixed. In terms of forming a successful regression equation which will be handful in terms of prediction, only two regression out of the five stands out. The impact created by the FDI in textile and chemical industry had really been pivotal in generating statistically significant employment opportunity in textile and chemical sector respectively since both the overall model and regression co-efficient turned out to be statistically significant at a 5% level of significance. On the other hand, the impact created by the FDI in agro, engineering and service industry had been insignificant in generating statistically significant employment opportunity in agro, engineering and service sector respectively since both the overall model and regression co-efficient turned out to be statistically significant at a 5% level of significance. As a predictor variable FDI in textile sector is doing the most significant job and FDI in agro-based industry is performing the most insignificant job.

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| Dependent variable | Independent variable | R-Square | F-value | Sig (F) | Regression co-efficient | T-Value | Sig (T) |
|---|---|---|---|---|---|---|---|
| Textile-Employment | Textile – joint venture | .631 | 15.418 | .003 | 120.57 | 3.927 | .003 |
| Agro- Employment | Agro- joint venture | .558 | 11.362 | .008 | 35.56 | 3.371 | .008 |
| Chemical-Employment | Chemical- joint venture | .191 | 2.121 | .179 | 12.093 | 1.456 | .179 |
| Engineering - Employment | Engineering - joint venture | .947 | 160.31 | .000 | 38.48 | 12.661 | .000 |
| Service - Employment | Service - joint venture | .342 | .4.687 | .059 | 1.839 | 2.165 | .059 |

It is evident from the above mentioned table that the response of joint venture inflow in different sector of the economy in terms of employment generation has been quite mixed. In terms of forming a successful regression equation which will be handful in terms of prediction, three regressions out of the five stand out. The impact created by the joint venture in textile, agro-based and engineering industry had really been pivotal in generating statistically significant employment opportunity in textile, agro-based and engineering sector respectively since both the overall model and regression co-efficient turned out to be statistically significant at a 5% level of significance. On the other hand, the impact created by the joint venture in chemical and service industry had been insignificant in generating statistically significant employment opportunity in chemical and service sector respectively since both the overall model and regression co-efficient turned out to be statistically significant at a 5% level of significance. As a predictor variable joint venture in engineering sector is doing the most significant job and joint venture in chemical industry is performing the most insignificant job.

Now the researchers will like to put light on the difference in the yearly FDI level and joint venture amount and check it out whether these differences are statistically significant or not.

| Pair number | Variables | t-value | Sig (2-tailed) |
|---|---|---|---|
| Pair -1 | Textile FDI – Textile Joint Venture | -2.611 | .026 |
| Pair -2 | Agro FDI – Agro Joint Venture | -1.606 | .139 |
| Pair -3 | Chemical FDI – Chemical Joint Venture | .862 | .409 |
| Pair - 4 | Engineering FDI – Engineering Joint Venture | -1.92 | .084 |
| Pair -5 | Service FDI – Service Joint Venture | -.333 | .746 |

Here, the difference between the FDI and joint venture inflow in the textile sector is statistically significant and the difference between FDI and joint venture inflow in the Agro based industry, chemical sector, engineering

 

and service sector is not statistically significant. So, as a whole there is no systematic bias towards any mode of foreign investment in Bangladesh from a sector point of view.

Now the researchers will like to put light on the difference in the employment impact of FDI and joint venture and check it out whether these differences are statistically significant or not.

| Pair number | Variables | t-value | Sig (2-tailed) |
|---|---|---|---|
| Pair -1 | Textile Employment FDI – Textile Employment Joint venture | -1.591 | .143 |
| Pair -2 | Agro Employment FDI – Agro Employment Joint venture | .312 | .761 |
| Pair -3 | Chemical Employment FDI – Chemical Employment Joint venture | -3.767 | .004 |
| Pair - 4 | Engineering Employment FDI – Engineering Employment Joint venture | -1.858 | .093 |
| Pair -5 | Service Employment FDI – Service Employment Joint venture | -.2.386 | .038 |

Here, the difference between the FDI's and joint venture's impact on employment creation in the chemical and service oriented sector is statistically significant and the difference between the FDI's and joint venture's impact on employment creation in the agro-based, textile and engineering sector is statistically significant is not statistically significant. So, as a whole there is no systematic bias towards any mode of foreign investment in Bangladesh from a sector point of view.

**5.0 Conclusion:**

This very research focused on the trend of FDI and joint venture in case of Bangladesh. The researcher has tried to pinpoint the impact of the inflow of FDI and joint venture on the employment status in different economic sectors where the inflow of foreign investment did come. There had been evidence that FDI inflow came into the country at a random basis and there had been trended evidence for the Joint venture inflow in our country. It had been expected on academic evidence that the inflow of FDI will create significant impact over the employment creation status of the country. But it was revealed that the inflow of FDI and joint venture had failed to create the desired level of impact in case of employment creation in our country. Even though in several economic sectors the scenario is at bit different, as a whole the overall scenario is not lucrative from any aspect. Since there were no significant difference in the inflow of FDI and the inflow of joint venture – it was revealed that there was no systematic bias in terms of treating FDI and joint venture inflow. It is highly recommended from an economic point of view that there needs to be strict rules and regulation for using local manpower, local raw materials while using the FDI and joint venture. It is also recommended that the government should try to reduce the extent of bureaucratic complexity and fuel crisis to invite more and more FDI and joint venture proposals in the country. Political instability often poses another severe crisis and perhaps it is the single most reason why Bangladesh has not yet become a foreign investment heaven. So, necessary initiatives have to be taken in order to bring about peace and amity in the political circumstances.

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