

The Impact of Sectoral Foreign Direct Investment on Industrial Economic Growth of Pakistan

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Abstract: *This study examines the impact of sectoral foreign direct investment on industrial economic growth of Pakistan, by means of Cobb-Douglas production function. Three sectors were used namely manufacturing, construction, mining & quarrying for panel data during the period of 1997 to 2011. This study used three standard panel unit root tests; PP statistics panel unit root, ADF statistic, IPS panel unit root test. Moreover, to test the co integration between the variables, three different types of test were used for the panel co integration test based on Johansen fisher, Kao residual cointegration, Pedroni residual cointegration tests to find the long run relationship between sectoral FDI and industrial economic growth of Pakistan and the. Results revealed that sectoral FDI has positively and significantly affect the industrial growth of Pakistan.*

Keywords: Pakistan; Cobb-Douglas; Panel Unit Root Test; Panel Cointegration Test; long-run relationship

Introduction

Since 1980's Foreign Direct Investment (FDI) has been playing an integral in the economic development process as globalization picked up speed. For the last three decades, numerous developing countries are continuously focusing on attracting the attention of foreign investors to boost FDI inflows in their countries. For the host country FDI provide benefits in many ways. The introduction of FDI has many direct effects, such as capital formation of capital, increased number of employment, improved tax revenues and uprising of the export structures and productivity of the host countries, the factor which ameliorate efforts by countries to attract FDI is the anticipation of acquiring access to more sophisticated technology. It not only passes on to the scientific processes of distribution, procurement and production, but extends to management and marketing techniques (Blomstrom & Kokko, 2003) and many times becomes gateways for global markets.

Pakistan's endowment of capital is smaller as compared to other countries and has been heavily relying on foreign capital inflows in terms of technology and finance (Siddiqui & Kemal, 1961). On the other hand, conventionally the country has not been an immense receiver of FDI; the average yearly inflows of FDI were in the order of \$42 and compose only 1.4 percent of its GDP in the 1980s and in 2011 FDI was

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0.62. Its highest value over the past 41 years was 3.90 in 2007, while its lowest value was -0.06 in 1973. If we compare, several Asian economies were able to magnetize \$2 to \$4 billion of FDI per annum. In China, FDI involvement to its domestic capital formation was 2.2 percent it was 14.4 percent in Indonesia, 15.2 percent in Malaysia, 25.5 percent in Singapore and 14.4 percent in Taiwan (GoP, 2008).

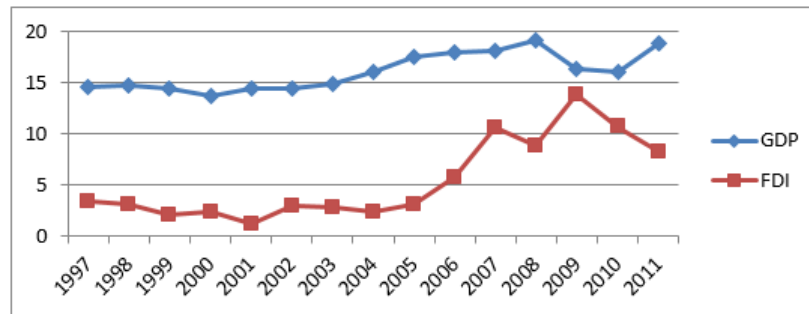
It is believed that any country's industrial sectors holds a significant importance in its economy. Without a resilient industrial sector a country cannot compete economically in the modern world, Industrial sector is the second largest individual sector of the economy accounting for 24% of the GDP. In Pakistan the industrial production growth rate during the year 2005 remained 6%. Large scale manufacturing growth rate here is 19.9%.

Most of the present economic problems in Pakistan are ultimately linked to the slow pace of industrial development. Rapid industrialization is considered by the economic exports as the sovereign remedy to provide a strong base for our economy. Importance of Industrial sector in Pakistan or role of industrial sector in economic development is crucial. Similarly manufacturing and construction sector has its own importance because of its benefits like globalization and particularly exports which results generate higher foreign exchange reserve and ameliorate employment rate in the country.

In the case of Pakistan manufacturing is the third largest sector of economy. Activity in the manufacturing sector is comprised of large, medium and small-scale, and Pakistan highly invests in its semi-manufacturing and textile industry. Manufacturing sector has approximately 15% of share in its GDP ¹. The mining & quarrying industry in Pakistan have high potential and it could become the main and the most contributing sector of industry contributing 14.74 percent in overall industrial sector. Construction sectors stands next in the order of significance in Pakistan's industrial sector contribution 11.42% in the overall industrial sector.

Even after three decades FDI is still acknowledged as one of the imperative catalyst for the encouragement of a country's progress, and of genuine union with other developed economies.

Figure 1: Manufacturing sector output and FDI graph



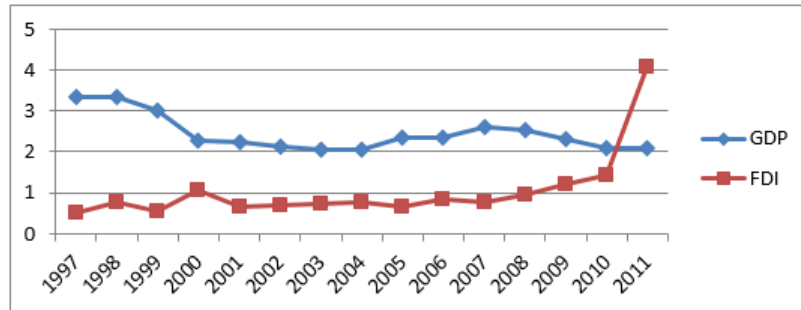
Author's: Estimation

The above graph shows that there was a continuous increase in output of the sector from 1997- 2008 then there was a modest decline in the output, similarly FDI faced

¹(Economic & Survey, 2012-2013)

fluctuation from 1997-2005, after that there was a uplift but if we compare FDI and GDP graph we don't see the same uplift on output of the manufacturing sector as it was in FDI from period 2006-2008.

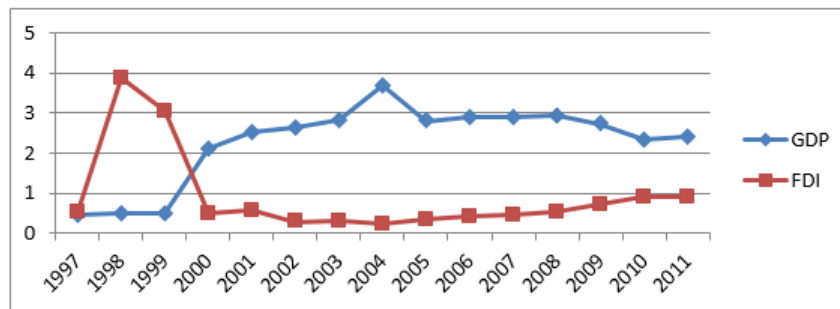
Figure 2: Construction sector output and FDI graph



Author's: Estimation

The above graph shows that there was a continuous decline in output of the sector from 1997- 2011 then there was a modest uplift of the output, similarly FDI faced fluctuation from 1997-2007 after that there was a uplift but if we compare the FDI & GDP graph, it is observed that FDI increased from 2007-2010 but output was still going downwards.

Figure 3: Mining & Quarrying sector output and FDI graph



Author's: Estimation

The above graph shows that there was a continuous increase in output of the sector from 1999- 2008, but from 2003-2005 there was a boom in the output then there was a modest decline in the output, similarly FDI faced uplift from 1997-2000 after that there was a continuous decline till 2007.

Motivation of the Study

Many Studies have been conducted in the past over the panel data both at aggregate and disaggregate level to find out the FDI and economic growth nexus and found that FDI has a positive and significant relationship with economic growth (Adeleke, 2014; Uttama, 2011), whereas other found that FDI negatively affects economic growth (Khaliq, Noy, et al., 2007; Alfaro, 2003). In case of Pakistan a study (Iram & Nishat, 2009) examined the sectoral data analysis and its effect on economic growth by using aggregate level FDI. Our research focuses on FDI-growth nexus regarding to manufacturing sector, construction sector, and mining & quarrying sector. We have done our research on disaggregate level FDI by which we will be able to measure the contribution of FDI on its particular. Looking at the above studies a conclusion is drawn that, there is still a need to expand the study with new data set regarding the sectoral data analysis.

The intention of this research is to observe the effect of sectoral FDI namely construction, manufacturing, and mining & quarrying on industrial economic growth of Pakistan. Similarly we also faced issues regarding FDI, the unavailability of FDI data sector wise in yearly as well as monthly records earlier than 1997 and following 2012. This restricted our focus to data from 1997-2011. Pakistan had a significant impact on the South Asian industrial growth, our research will help the government of Pakistan to map a route for the economy in future times, it will also help the government to identify the sectors which should be given additional and proper attention and support for their growth.

The rest of the paper is organized as follows, chapter two includes theoretical background and literature review, chapter three describes the methodology, chapter four explains the results and final section contains conclusion and recommendations.

Review of Related Literature

This chapter reviews past literatures, and well established theories over relationship among foreign direct investment and economic growth.

Theoretical Underpinning

There are numerous studies on the association between FDI and economic development on developed countries as well as developing countries, some of the research shows negative relationship while others show positive relationship. Studies that focus on data from developed countries generally show negative relationship, or no benefits for the host country, while data from developing country tends to have positive links.

In most studies empirical work is based on Solow's neo-classical model; neo-classical model defines relationship by explaining following channels.

1. MNF in host country role.
2. Determinates of FDI.
3. Causality and its direction between two variables.(Chowdhury & Mavrotas, 2005)

It states that factor accumulation and total factor productivity are the two main sources of economic growth.(Felipe, 1999) Opposite to the neoclassical is the new

growth theory which postulate that FDI can only contribute to economic development through development of technological knowledge and its transmission and capital formation (Borensztein, De Gregorio, & Lee, 1998; Blomström & Kokko, 1996) and the expansion of labor skills and training. In its framework several channels are at work, first FDI diminishes the entry barriers of the host country industries, secondly it amplifies the level of skills and knowledge of host country through labor and management, Third FDI increases capital accumulation by new technologies and new inputs.(Dunning, 1993; Blomström & Kokko, 1996; Borensztein et al., 1998)

The similarity between neo classical and new growth theory is that one key factor in both is capital accumulation, but it is the technological faction which makes them different from each other. We can also states that neo classical model shows the direct contact of FDI on economic growth while the New Growth theory shows the indirect impact or spillovers of FDI, the spillover could be positive or negative.

Positive Spillovers

In 1970's FDI models and its positive spillovers come into sight. Different studies show positive spillovers of FDI. For example the differences across international firms were proposed at scientific and technological levels as a source of spillover and technological transfer by (Hymer, 1976) assuming that FDI represents the transfer of a package which includes new technology and funds management. Kindleberger (1984); Caves (1974, 1971) extended the industrial organization theory of FDI to emphasize the behavior of MNFs. According to them when MNF'S goes international then they have to face alien territory disadvantages so MNF'S carry on their production if they have some advantage over domestic competitors. A model was established by (Koizumi & Kopecky, 1977) which focused and explained the gain of technology to subsidiary from its parent company and was assumed to be a positive function of the level of foreign capital stock in the host country.

Negative spillovers

The scholars of dependency theories viewed FDI from developed countries as a damaging factor in the long-run for developing countries, early studies (Singer, 1950) stated that multinational firms (MNF) captured all the benefits and returned it to their home countries and FDI receiving countries received very minor benefits (Boss et al., 2009). Other factors are also defined which created negative impact of FDI on economic growth, such as depletion of natural resources , and the monopoly of certain MNF'S price distortions.

Dependency theory also argues that MNF'S are imperialist predators and responsible for natural resources depletion in developing countries. *World Investment Report* (1999) supported this view but Hein (1992) does not support the view and showed that Latin America restricted the FDI as a result poor economic growth on the other hand countries in South Asia encouraged the FDI and as a result there was rapid economic growth from the 1970s to 1980. Later Firebaugh (1992) found that LDCs tend to exhibit faster rates of both long run and short-run economic growth if they get greater rates of foreign investment . The contradicting results shift attention from the negative effects of FDI to the potentials of FDI and its positive effects.

Empirical Studies

Blomstrom, Lipsey, and Zejan (1992) examined the relationship between economic development and FDI. Results recommended that the FDI has affirmative impact on gross domestic product (GDP) for developing countries with higher income, but not for countries with lower income. Borensztein et al. (1998) scrutinized the effect of FDI on economic development in a cross-country investment, H the stock of human capital, Y initial GDP per capita and dependent is gross domestic product (GDP). Result suggest that FDI has the positive impact on gross domestic product (GDP).

Aitken and Harrison (1999) examined FDI to promote technology “spillovers” from domestic firms to foreign firms by using panel data Housman test. It was discovered that FDI have negatively affected the output of domestic plants. Addison and Heshmati (2003) examines the determinants of FDI inflows to developing countries by using Granger causality test from (1980-2000). The result shows that economic growth, openness to trade and flow of FDI has an affirmative association, whereas FDI and level of risk affects has a negative. Bengoa and Sanchez-Robles (2003) examined the interplay among economic development, FDI and economic freedom. In this research the panel data analysis was used from the data of 18 Latin American countries from 1970-1999. Our outcomes advocate that FDI is positively interrelated with economic development in the host countries we also find that economic freedom in the host country is a positive determinant of FDI inflows.

Alfaro (2003) explored the effect of FDI on services sectors, primary development and manufacturing. An experimental scrutiny was applied using cross-country data for the period 1981-1999. Results showed that total FDI have an uncertain effect on economic development. FDI in the primary sector, however, is liable to have a pessimistic and insignificant effect on economic development, while investment in manufacturing has an affirmative effect on economic development. Katerina, John, and Athanasios (2004) examined the impact of FDI on economic progress focused on the western European countries and American countries and found that the nature of the effect of FDI for the panel of transition economies by using Bayesian analysis results indicated that FDI does not have any noteworthy relationship with economic development for the transition countries.

Atique, Ahmad, and Azhar (2004) examined the effect of FDI on economic development. The test which was used to discover the impact of FDI on economic development was Augmented Dickey Fuller (ADF), result recommended that FDI has an affirmative impact on economic development. Yao (2006) inspected the effect of FDI and exports on economic development, using the data of a set encircling 28 provinces of China a large panel data over the period 1978-2000. Arellano and Bond’s dynamic panel data estimating technique and Pedroni’s panel unit root test were used for analysis. Result suggested both FDI and exports exerted positive effect on the economic development.

Khaliq et al. (2007) thesis explores the impact of FDI on economic development on aggregate level using comprehensive sectoral data for FDI inflows to Indonesia over the period 1997-2006 using Cobb-Dogllus production function. Results suggested that some sector shows positive impact on FDI, but mining & quarrying shows negative impact on FDI inflows. Iram and Nishat (2009) the effect of services and manufacturing FDI on economic development in the presence of macroeconomic Instability and privatization over the period of 1972 to 2008 by using Philips-Perron unit root and Augmented Dickey Fuller. Results conclude that in the short run, both manufacturing FDI and services FDI do not significantly affect economic development. However, in the long run manufacturing FDI and services FDI significantly affect economic devel-

opment.

Hermes and Lensink (2003) examined the function of the expansion of the financial system plays in ornamental the optimistic affiliation among FDI and economic development. Data which used was taken from 67 countries in data set by using correlation matrix. The result showed that 37 out of 67 countries have an adequately developed financial system and in these FDI added optimistically to economic development. Tian, Io Lo, Lin, and Song (2011) scrutinized the spatial dimension of FDI output spillovers in transition economies. The data which is adopted for this research was from China. The study found that FDI in the growth pole on the coast adversely affects the efficiency of domestic firms in the peripheral interior.

Xu (2012) examined whether comparatively stumpy benefits of FDI on economic development in China was due to poor financial market development by using Evidence Blundell-Bond system to estimate. A dynamic panel data model from provincial data 1999-2006. Study reveals In contrast, FDI creates positive impact on economic development if credits are associated to small private enterprises, while FDI creates negative impact one economic development if credits are associated to banks unproductive state-owned enterprises (SOEs). Inekwe (2013) scrutinizes the bonds among FDI and Nigerian economic development, employment and in the manufacturing and servicing division's period from 1990 and 2009. The tests which are used in the research are vector error correction and Johansen co integration technique. Results revealed that FDI in the manufacturing sector has a pessimistic affiliation while FDI in the servicing division has a optimistic link with economic development. FDI in the servicing sector has a negative bond with employment pace while in the manufacturing sector it has a positive connection with employment rate.

Adeleke (2014) observes the effects of governance on FDI-growth nexus in Africa using both levels aggregate and disaggregates by using panel data technique to scrutinize the interrelationship and the variables which used are gross domestic product (GDP), FDI, and governance (GOV). Results suggested that FDI attract GDP but must augment their governance structure. The above past studies indicate that FDI has negative, insignificant, or some sectors possesses negative effect of FDI on economic development. If we review the past studies, it can be concluded that the FDI affects economic growth in different ways, FDI may act as boon or bane for the host country so there was a need for the expansion of study with new data set and our research will aims to cover the existing gap.

Modeling Framework of the Study

Our empirical estimates started with the augmented Cobb-Douglas production function framework (1). The model is to estimate the effect of FDI namely manufacturing, construction, and mining & quarrying on industrial growth in parametric form we can define it as follows:

$$Y_{it} = \alpha_{it} + \beta_1 LAB_{it} + \beta_2 CAP_{it} + \beta_3 FDI_{it} + \epsilon_{it} \quad (1)$$

Where Y= is the industrial output gross domestic product (GDP), LAB is for labor force, CAP represents gross capital formation as a percentage of GDP (CAP), FDI represents FDI, e denotes error and 'it' represents that it was a disaggregate equation.

The data used in this research cover three sectors manufacturing, construction and mining & quarrying (n=3) and the model is estimated by using 14 years (t=14) of annual data from the period 1997-2011. We have used disaggregate FDI, CAP, LABOR and GDP in our research to measure the actual effects of these variables on its particular sectors. The research adopted three sectors of Pakistan first manufacturing second construction and the third one was mining & quarrying. The data was obtained from the Federal bureau of statistics and Hand book of statistics of State bank Pakistan (SBP) and ministry of finance Pakistan ².

Now the techniques which were used to check that whether the data is stationary or not, we have adopted three methods such as PP Statistics panel unit root (Choi, 2001), ADF Statistic (Maddala & Wu, 1999), IPS in panel unit root test (Im, Pesaran, & Shin, 2003), to discover the long-relationship among the variables Chaiboonsri, Sriboonjit, Sriwichailamphan, Chaitip, and Sriboonchitta (2010) used all five methods. Our research adopted three methods in cointegration Johansen Fisher, Kao residual cointegration and Pedroni residual cointegration tests to find long relationship among dependent and independent variables and to find the coefficient we have used OLS.

Estimation and Results

The actual intent of this research is to scrutinize the impact of construction manufacturing and mining quarrying FDI on industrial growth of Pakistan. We have chosen up three sectors which include manufacturing, construction, mining & quarrying.

Moreover we adopted least square technique in regression analysis to find the impact of sectoral FDI on industrial growth of Pakistan. The impact of independent variable on dependent variable will be classified by the following analysis.

Summary Statistics

For the interpretation of basic properties of data we used the above statistic. The maximum shows the upper limit value and the minimum shows the lower limit value of the variables

²<http://www.finance.gov.pk/>

Table 1: Descriptive Statistic

		FDI	CAP	LAB	GDP
Overall	MEAN	2.444	1.456	2.960	6.927
	MAX	13.759	4.286	7.359	19.042
	MIN	0.247	0.092	0.092	0.472
	STD.DEV	3.164	1.402	1.402	6.625
Manufacturing Sector	MEAN	5.386	3.291	5.918	16.043
	MAX	13.759	4.286	7.359	19.042
	MIN	1.181	1.437	3.679	13.664
Construction Sector	MEAN	1.043	0.341	2.915	2.456
	MAX	4.080	0.661	3.800	3.350
	MIN	0.516	0.092	2.157	2.048
Mining & Quarrying Sector	MEAN	0.903	0.736	0.048	2.283
	MAX	3.855	1.588	0.085	3.692
	MIN	0.247	0.237	0.0261	0.472

Source: Authors' Estimation

Panel Unit Root Test

Research shown that unit root test based on individual time series have less power than panel-based unit root tests (Breitung, 2000; Levin, Lin, & Chu, 2002; Im et al., 2003). We use Im, Pesaran and Shin unit root test and Fisher-Type unit root test using Augmented Dickey Fuller and Philips-Perron test statistics to analyze the stationary properties of considered variables (Maddala & Wu, 1999; Choi, 2001; Im et al., 2003).

Table 2: Results of Panel Unit Root Test of All Variables at Level

Variables	Im, Pesaran, Shin			ADF test statistics			PP test statistics		
	1(0)			1(0)			1(0)		
	C	C&T	RESULTS	C	C&T	RESULTS	C	C&T	RESULTS
FDI	2.563	1.768	Non stationary	3.930	4.333	Non stationary	4.226	4.333	Non stationary
CAP	-0.308	1.410	Non stationary	6.526	2.984	Non stationary	6.226	2.858	Non stationary
LAB	-0.087	-0.372	Non stationary	5.759	7.519	Non stationary	9.068	18.276	Non stationary
GDP	-0.381	-0.308	Non stationary	6.251	4.752	Non stationary	6.650	2.272	Non stationary

Source: Authors' Estimation

In table 2 & 3, we present the results of unit root tests of all the variables considered in this research. The results show that all variables are non-stationary at level but, after taking the first difference, they all becomes stationary (see table 3). Therefore, it is concluded that there is no several issue of unit root exists in our variables and we can use the same variables for further estimations.

Table 3: Results of Panel Unit Root Test of All Variables at First Difference

Variables	Im, Pesaran, Shin			ADF test statistics			PP test statistics		
	1(1)			1(1)			1(1)		
	C	C&T	RESULTS	C	C&T	RESULTS	C	C&T	RESULTS
FDI	-3.835	-3.383	Stationary	20.117	21.458	Stationary	23.332	22.115	Stationary
CAP	-2.194	-2.104	Stationary	15.042	13.875	Stationary	15.556	13.780	Stationary
LAB	-4.172	-0.372	Stationary	56.109	54.664	Stationary	56.664	49.427	Stationary
GDP	-2.560	-2.368	Stationary	16.879	16.159	Stationary	15.44	16.264	Stationary

Source: Authors' Estimation

Panel Co-Integration Test

In this study, we used three econometric techniques of panel co-integration namely; Pedroni panel co-integration, Kao Residual based co-integration and Fisher Johansen based co-integration to analyze the long run relationship between variables. The null hypothesis of all co-integration methods is that there is no long run co-integration exist between variables. Table 4 represents the results of co-integration analysis. The results of all applied co-integration methods confirm the existence of significant long run relationship between variables.

Table 4: Pedroni Residual Co-Integration Tests

Test Name	Statistic	Sig. level for rejection (no co integration)
(1) Pedroni Residual Co-Integration Tests		
Panel v-Statistic	-0.136	0.554
Panel rho-Statistic	-0.144	0.442
Panel Philips-PerronStatistic	-3.076	0.001
Panel Augmented Dickey Fuller-Statistic	-3.755	0.000
Group rho-Statistic	0.795	0.786
Group Philips-Perron-Statistic	-2.977	0.001
Group Augmented Dickey Fuller-Statistic	-5.220	0.000
(2) Kao Residual Co-Integration Tests		
Augmented Dickey Fuller-Statistic	-1.722	0.042
(3) Johansen Fisher Panel Co-Integration Test		
Fisher Statistics from Trace Test		
At Most 1	57.58	0.000
At Most 2	25.16	0.000
At Most 3	14.97	0.020
Fisher Statistics from Max-Eigen Test		
At Most 1	41.68	0.000
At Most 2	21.03	0.001
At most 3	14.97	0.020

Source: Authors' Estimation

Ordinary Least Square

Table 5: Ordinary Least Square Test

Variables	Coefficient	T-Statistics	Prob
C	0.468	1.194	0.239
LAB	0.756	4.626	0.000
CAP	2.946	11.378	0.000
FDI	0.353	3.256	0.002
Adjusted-R ²		0.9366	
F-Statistics		217.99	
Prob (F-Statistics)		0.000	

Source: Authors' Estimation

The results of long run analysis are presented in table5. Results confirm the positive and significant impact of sectoral foreign direct investment on industrial economic growth of Pakistan. The motive behind the significant and the positive relationship between FDI and the economic expansion of Pakistan, when there is an inflow of FDI in the host country like Pakistan its shows the stability of economy its effects positively on production which help to increase the gross domestic product (GDP) there are many other positive spillover of FDI, inflow of FDI introduces new companies & firm, increases employment, and FDI inflow. FDI represents the transfer of a package which include new technology and funds management (Hymer, 1976). Moreover ameliorate the level of skilled labor workers in the host country.

Results also suggest the positive and significant influence of labour force and capital on industrial development in Pakistan. The core motive of positivity and significant association between economic development and labor is if employment amplifies purchasing power of people increases due to which it helps to attract more production. The rate of attracting more production will be higher if the country have young and skilled labors and they will be beneficial and will be more favorable for economic growth of the country because it has found in some research the rate of increase is depend on the gender and skilled labors age. The above data shows capital has positive and considerable association with economic augmentation and the reasons behind it is when capital increase its directly effect on the gross domestic product (GDP) of the host country as well as it is very imperative to consider all determination of gross fixed capital formation (CAP) to find out the gross domestic product (GDP) of a nation.

Granger Causality Test

To investigate the causal relationship between FDI and industrial economic expansion we have adopted Granger causality. To discover out the causation and the direction between two variables standard granger causality (Granger, 1969) has been utilized. Jones (1989) express that if we compare selection method of optimal lag length, the ad hoc selection in granger causality is better than any statistical methods for determining optimal lag. Consequently, for granger causality analysis we found Uni-directional results at lags 1, 2, 3 but if we go for lags 4 for the models of Gross domestic product (GDP) and FDI we got bi-directional results among the variables. The Table 6 explained the result of Granger causality.

Table 6: Granger Causality Test Results

NULL HYPOTHESIS	Lags	F-Statistic	Prob	Results
FDI does not Granger Cause GDP	1	0.330	0.568	Uni-directional
GDP does not Granger Cause FDI		5.503	0.024	GDP - > FDI
FDI does not Granger Cause GDP	2	0.318	0.729	Uni-directional
GDP does not Granger Cause FDI		7.276	0.002	GDP - > FDI
FDI does not Granger Cause GDP	3	0.375	0.771	Uni-directional
GDP does not Granger Cause FDI		6.307	0.002	GDP - > FDI
FDI does not Granger Cause GDP	4	3.048	0.036	Bi-directional
GDP does not Granger Cause FDI		5.297	0.003	

Source: Authors' Estimation

Results of Table 6 illustrate that there is bi-directional causality exist between the economic developments (GDP) and the FDI. It means that after almost four years FDI will starts to shows its effect on industrial growth.

Conclusions and Policy Recommendation

This research empirically investigated the impact of sectoral FDI namely manufacturing, construction, mining & quarrying on industrial growth of Pakistan over period of 1997 to 2011. In order to find out the order of mixing, we used IM Pesaran, Augmented Dickey Fuller and Philips- Perron unit root tests.

We used Pedroni Residual co-integration test, (Kao, 1999) Augmented Dickey Fuller test, and combined individual test (Fisher/Johansen) to test out the long-run relationship among dependent variable (GDP) and the group of self-governing variables, we found that in the long run sectoral FDI, capital (CAP) and labor (LAB) significantly affect industrial economic upswing. The outcome also shows that FDI contribute optimistically and considerably to industrial economic development. However, after the results the policy recommendation is to magnetize the variables which help in attracting FDI in Pakistan.

Government must pay proper attention in variables which reflects liberalization of financial & fiscal sectors and trade, variables such as, exchange rate, credit to private sector, excise rate, tax rate, and indicator of general share price these policy variables are significantly effective for attraction of FDI for both in short term as well as long term in the country. Government of Pakistan should do some reduction in corporate tax and import excise would affirmatively affect the rate of FDI inflow similarly when exchange rate coefficient is affirmative resulting the appreciation of rupee in the international market exerts strong economy signs and it will also build up confidence in the foreign investors to invest in the country. Moreover generous credit policy will also help plenty to development of FDI.

FDI should be encouraged to strengthen economic growth, to lift up living standards to restrain poverty and unemployment to amplify benefit of innovative technology, but we must not forget to give proper attention should also be paid to maintain profit outflow and to prevent people from the monopolies of the multinational firms and to save sovereignty of the country. In order to enhance growth, policies should device to attract export oriented FDI instead of domestic demand oriented.

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