

Chapter-III



REVIEW OF RELATED LITERATURE

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For last couple of decades, the understanding of the empirical relationship between the extent of foreign investment inflow in the form of FDI or FPI and the economic wellbeing of a country in many forms like growth in domestic production, industrial growth, employment generation and foreign trade especially export promotion has really been a core interest for the academicians and economic analysts in India and abroad. The theoretical literature, highlighting the importance of above-mentioned issues are highly controversial and conflicting, and different empirical investigations also identify the ambiguous relationship between these macroeconomic variables. However, the association between these variables is largely country-specific. Moreover, a number of studies have been made during the last few decades to establish the validity of the nexus between foreign investment and GDP. Here in this chapter, we make a review of theoretical literature and empirical studies on the relationship between FDI/ FII on one hand, and GDP/ and other macro-economic variables on the other hand. Studies are arranged in thematically and chronologically.

3.1 Foreign Investment and Macro-Economic Environment

In order to gain better insight into the thought of nexus between foreign investment and economic growth, it is necessary to review important theories on foreign investments. The theories trying to explain why companies or individuals invest in foreign countries, what factors encourage their investment decisions, why firms are choosey about one country instead of another and consider other perspectives. In this

section, we broadly discuss four main approaches namely, Product Life Cycle theory, Currency-Base Theory, Strategic Rivalry Theory, and Eclectic Theory.

In product cycle hypothesis Vernon (1966) postulates that almost every product follows a life cycle and begins with innovations and ultimately becomes completely standardized. Cross border investment occurs when the product matures and the firms react to the threat of losing markets, by setting up a production unit in the foreign location and capturing the remaining rents by upgrading the products. This hypothesis is developed by intending to explain the behavior of US exports of manufacturers after 'Second World War'. This four stage Product Life-Cycle model includes distinct four cycles. Stage-I: the US achieves export monopoly with innovation (design a new product), Stage-II: competitive producers eventually emerge in foreign markets i.e. foreign production begins, Stage-III: foreign production of this product becomes competitive in the export market that compels to map the FDI possibility in the export location and finally Stage IV: either the US becomes an importer of this product or the firms may decide to invest in developing countries, as the production process is no longer an exclusive possession of the innovator, to get some cost advantages.

One of the classical theories based on imperfect foreign exchange and capital market, popularly known as currency base theory, has been developed by Aliber (1971). This theory postulates internalization of firms could be best explained in terms of the various currencies' relative strength. The firms in the relatively strong currency countries would engage more in foreign investment and vice versa. Consequently, in a relatively strong-currency country firm is capitalized at a higher rate. This theory provides another insight that relatively strong-currency firm might be more efficient in hedging the exchange risk. Finally, the theory concludes in this way that weak-

currency countries tend to be host countries and strong- currency countries tend to become sources of foreign investment.

In this study Kinckerbockers (1973) advocates the rationale of cross border direct investment based on the idea that the inflows of this type of investments are a reflection of strategic rivalry in the liberalized global marketplace. More specifically, the investigation looks at the relationship between cross border direct investment and rivalry in oligopolistic industries i.e. whether cross border investment by one firm would have the immediate impact of major competitors in the industry to maintain their market share. To judge this reaction the study uses a large number of US multinational corporation's data and calculates entry concentration index. The result signifies that an incremental industrial concentration causes an incremental reaction by industrial competitors which reduces the possibility of gaining over the others. The study also reveals that the entry concentration index is positively associated with the market size which explains that the reaction is stronger, the larger the market at stake. The study also observes a negative correlation index between the product diversity of the MNCs and the expenditure on research and development.

An eclectic theory of FDI has proposed by Dunning (1977, 1980 and 1981) by subsuming three standard of literature on cross border direct investment, namely, the industrial organization theory, the location theory, and the internalization theory, popularly known as OLI framework, which describes the propensity of a company to engage in international production depends on the existence of specifically three advantages. Firstly, the ownership advantage describes that the firm must have some ownership advantages of posing some intangible assets like knowledge and know-how in respect with other firms. Secondly, the location advantage advocates that the foreign countries must have location advantages of doing business and having a better

environment in terms of resource endowments, structure, and size of the market, institutional environment, etc. Finally, the internalization advantage explains that the firm must have some benefit of investing to internalize their firm-specific assets and utilize it themselves rather than leasing or selling them.

The study by Bekaert and Harvey (1997) provide empirical evidence for establishing the relationship between financial market and economic growth with a special reference to the capital market and stock market integration for the eighteen countries over the period from 1986 to 1992. In their study, they have also tried to address the role of various regulators in making capital markets an engine of economic growth. The results of their study show that foreign investment and as well as a domestic investment are the critical ingredients in fostering the proper environment for economic growth. They also find that efficiency effects the allocation of capital and an efficient market to make the conditions for venture capital fund to work through an initial public offering. Finally, this study concludes that the existence of an interaction between capital market integration and economic growth and provides new empirical evidence that the openness of the economy is favorably associated with economic growth.

3.2 Relationship between Foreign Direct Investment (FDI) and Economic Growth

3.2.1 Studies in Foreign Context

With the rapid growth of cross border investment flows across the countries and its importance of the world economy, many studies of measuring the impact of FDI on growth have emerged in the last couple of decades in different countries spread over

the world. This section considers the studies of FDI and in differential impacts on growth in a foreign context.

Carkovic and Levine (2002) try to examine the impact of foreign capital and economic growth constructing a panel data set covering the average data during 1960 - 1995, over each of the seven 5-year periods. Interestingly they compare the results of the relationship between foreign capital and economic growth using the then revised data set of World Bank and International Monetary Fund. To identify the efficient and consistent estimates of the impact of foreign direct capital inflows on economic growth, they have employed the Generalized Method of Moments (GMM) model developed by Arellano and Bover (1995). By applying the GMM panel estimator they try to control the endogeneity problem, include the lagged dependent variables in the regression and catch the country-specific effects. After investigating and confirming the results using two world-wide databases on international investment flows they conclude that cross border direct investment do not contribute an independent influence on the growth process of the economy. They also conclude that sound and progressive economic framework may spur both international capital and economic growth.

The study made by Hermes and Lensink (2003), investigate the role of financial development in enhancing the positive relationship between FDI and economic growth. Related data of 67 lower developed counties (LDCs) for the period 1975 to 1995 have been used for empirical study. The study reveals that the development of the financial system of the (recipient) country is an important precondition (recipient) for inward FDI to have a positive impact on economic growth. The article also reveals that the order of economic liberalization in LDCs. Finally, the analysis suggests that

these countries should first reform their domestic financial setup before liberalizing the capital account to allow for enlarged inward FDI flows.

Taking a sample size of 29 LDCs over the periods ranging from 1970 to 1990 K Sylwester (2005) attempts to investigate how FDI is associated with both economic growth and changes in income inequality. The analysis of the simultaneous equation model reveals that FDI promotes economic growth positively. However, the same expands more income inequality in the selected developing countries.

Employing pooled annual time series data from 1993 to 2002, Bhandari et. al., (2007) make a sincere endeavor to evaluate the effectiveness of foreign aid and FDI on economic growth as measured through real GDP in the Czech Republic, Estonia, Hungary, Latvia, Lithuania, and Poland. They consider labor force, capital stock, foreign aid and FDI into the model. They run multiple varieties of tests such as stationery test, error correction test, and fixed effect estimation. The results of the analysis indicate that both domestic capital stock and FDI inflows are positively and significantly affecting economic growth in these regions. However, foreign aid fails to be effective in impacting over economic growth. The study concludes that labor forces have a negative impact on real GDP given the labor-intensive countries.

The study by Khaliq and Noy (2007) provide some empirical evidence for establishing the relation between cross border direct investment on Indonesian economic growth using different sector level data for investment inflows over the period 1997- 2006. In their study, they have also tried to address aggregate level FDI and economic growth relationship. To measure this gross relationship they consider domestic investment, FDI, labor employment and GDP as the major macroeconomic variables. They first reveal that FDI may indeed appear to have a positive significant impact on economic growth at aggregate level. But they find, at sector level, the

impacts of cross border direct investment on economic growth vary across the sectors. In investigation of sectoral investment, they have found that FDI in the mining sector has a negative significant impact on the growth of the Indonesian economy. They finally recommend that the policymaker of this country should more careful on subsidizing FDI inflows into any sector whether this sector is indeed beneficial as a means to propel the growth process. They also suggest that policymakers should pay more attention to formulate FDI policies that will help to reap up the maximum benefits through its appropriate sectoral composition.

Taking into account seven EU member countries during 1973 – 2004, Falk and Hake (2008) investigate the relationship between export and outward FDI in the long run based on country-level data. The study further attempts to establish whether the destination region affects the relationship between export and FDI. The result of the panel data (Dynamic) causality test confirms a strong positive impact of export on the outward FDI stock and the relationship is equilibrium in the long run. Also, the study uncovers an insignificant long-run impact of outward FDI stock on export in all the target regions. However, they find a positive significant effect of export on the outward FDI stock for two country groups. They conclude the study by suggesting that outward FDI stock and trade tend to be complements rather than supplements.

Considering quarterly time series data spanning over 1988 and 2003, Tang et. al., (2008) attempt to explore the possible connection between FDI, domestic investment and economic growth in China. Applying a multivariate VAR system with the Error Correction Model (ECM), cointegration test, impulse response function, variance decomposition and the Granger causality testing techniques, the study asks several questions such as complementary/substitution effect of FDI on domestic investment in China, role of FDI in China's economic growth and its linkages with domestic

growth. The results of the analysis exhibit that FDI plays an important role in complementing domestic investment in China, the larger the FDI the greater the domestic investment. Thus, FDI has a significant effect on Chinese economic growth. The study, further, reveals that China's domestic investment and economic growth are positively correlated. There exists a bi-directional link between GDP and DI, however, FDI maintains a unidirectional link to DI and GDP. China's domestic investment is also found to have a greater impact on growth than FDI.

Taking into account a panel data set for 42 Sub – Saharan African countries for the period 1990 – 2003, Adams (2009) tries to examine the effect of FDI on economic growth in SSA countries. The study, further, analyzes the impact of FDI on domestic investment in order to examine whether FDI crowds in or crowds out domestic investment. He runs two basic regressions in this study, the first one deals with the determinants of growth and the second one is related to determinants of domestic investment. The results exhibit that DI maintains a positive, as well as statistically significant correlation with economic growth in both the OLS and FEM, however, FDI, is positive and significant only in the OLS model. Furthermore, it reveals that FDI has an initial significantly negative effect on DI and the effect becomes positive in later periods for the panel of countries studies. Interestingly, the sign and magnitude of the current, as well as lagged FDI coefficients, suggest a net crowding out effect. To conclude, the study suggests that SSA countries need to be cautious and critical in the kind of FDI they attract; increase the absorption capacity of the local firms and promoting mutual benefits through government – MNCs co-operations.

Falki (2009) tries to assess the impact of FDI on economic growth in Pakistan during 1980 – 2006, The results of the OLS and cointegration test unveil that domestic capital formation as well as labor positively and significantly contributing economic

development in Pakistan for 1980 – 2006. It further shows a negative and statistically insignificant relationship between the GDP and FDI inflows in Pakistan. The study concludes by recommending that it is crucial for the government to draft growth-led attractive FDI policy both in manufacturing and service sectors that will facilitate export promotion in Pakistan.

Using Panel data analysis and Granger causality test over the period 1970 – 2011, Stamatiou and Dritsakis (2012) have made an effort to examine the causal relationships among FDI, export and economic growth (proxied by GDP) for the five economies in Eurozone (Greece, Portugal, Ireland, Spain, and Italy). The data have been collected from economic databases AMECO and UNCTAD. The panel data unit root test has confirmed that all the variables are stationary in their first differences. They have employed VAR model to check the causality among the examined variables which reflects a significant negative impact of the economic crisis on the said Eurozone countries, as a group. The analysis of the Granger causality test has demonstrated that there exists a strong bidirectional causal relation between export and economic development, the implication of the same is that an increase in domestic products of the five countries will cause a dynamic impulse both in export and development. Finally, the study has concluded that foreign direct investments influence neither exports nor development.

By adopting Vector Auto-regression model (VAR), Bhatt (2013) fixes up the objective of analyzing the long-run causal relationship between foreign trade and investment dimension in the context of Vietnam and makes comparison with its competitors such as Indonesia, Malaysia, Philippines, Singapore, and Thailand. Further, the study examines the impact of FDI on export escalation in Vietnam over the period of 1990 – 2008. It is evidenced from the analysis of the Vector Error

Correction Model that 1% increase in FDI will lead to 0.25% increase in export with one-year time lag indicating the existence of long-run equilibrium relationship among export, GDP and FDI. The result of the Granger Causality Test shows the existence of a unilateral relationship between export and FDI as well as export and GDP and the necessary direction is from FDI to exports in the former case while the direction is from FDI to GDP in the later.

Within the framework of a standard panel data model, Lenka and Sharma (2013) examine whether the inflows of FDI is the key factor of economic growth considering sixty-two countries data for the period of 1991 to 2010. The other main objective of the study is to analyze the principal determinants of economic growth in the world, such as real GDP per capita, inflows of FDI, human capital, population, inflation, savings and identify which is more significant than others. They have collected the data from different countries from the World Bank's World Development Indicators (WDI) database. On the basis of the empirical investigation, they have found that the impact of FDI inflows on real GDP growth is highly significant. They conclude that gradually inflow of FDI to a country helps to raise capital formation and resulting that reducing the gap between savings and investments. Again, this incremental savings increase the volume of investment and which has increased the production. Consequently, the export of the host country is increased that leads to gain more foreign currency. Finally, per capita income and standard of living are increased.

The empirical study of Mitze (2014) analyzes the role of Trade and Foreign Direct Investment activity in driving regional Total Factor Productivity (TFP). Also, this study examines the role of direct and indirect spillover effects for the German regional TFP – trade – FDI nexus. West German state-level data for the period 1976 to 2008 have been considered under Time series and spatial econometric tools for

empirical analysis. The study reveals that, in the short run, TFP growth is predominantly affected by changes in export, inward and outward FDI stocks, where the FDI provokes positive spillovers. The study also reveals a significant and positive impact of export flows on the level of TFP, supporting the exported growth hypothesis from regional and international economics. Finally, taking all the four variables into consideration it is observed that, the direct effect of internationalization activity remains always positive, while the indirect net effect is found to be positive in the short run and slightly negative in the long run.

Omri et al., (2014) explore the three-way causation CO2 emission, FDI and economic growth by employing dynamic simultaneous equation models to a panel data set of 54 countries over the period 1990 - 2011. Furthermore, they carry out the empirical models for three regional sub-panels for robust results. The results of the GMM estimation reveal that there exists a bidirectional relationship between FDI inflows and economic growth as well as FDI and CO2 for all the panels respectively except Europe and North Asia. They also indicate the presence of unidirectional and positive causality from economic growth to CO2 emissions in the countries like the Middle East, North Africa and Sub-Saharan panel which reflects that economic growth compromises environmental quality. The study concludes by recommending the policy think-tank that they should design and implement policies concerning environmental friendly production and consumption of goods, utilization of green technologies, etc. in order to reduce carbon emissions and resulting economic growth.

Using a large panel data set encompassing 28 Chinese provinces over the period 1978 – 2000, Yao (2014) attempts to examine the effect of exports and FDI on economic performances. The author employs econometric tools like panel unit root test and panel data estimating technique just to construct and estimate three related equations

on output, exports and FDI in order to identify the determinants of the respective variables. The study uses various variables such as human capital, infrastructure, locations, institution, and population growth, saving behavior, exports, FDI and exchange rate. It is evidenced from the analysis that economic growth in China is significantly and positively influenced by both exports and FDI. The results further pinpoint that two development policies i.e., export promotion and promotion of world technology and business practices in China place it in world's peak which can be practiced by other developing countries.

The empirical article of Keho (2015) tries to analyze the relationships among FDI, exports and economic growth of 12 sub-Saharan African countries over the period 1970-2013. The sources of the data are collected from the World Bank's World Development Indicators. The result of multivariate co-integration of Johansen suggest that the three variables are co-integrated in ten countries namely Benin, Burkina Faso, Cameroon, Congo-Democratic, Congo Republic, Cote d' Ivoire, Gabon, Ghana, Kenya, Nigeria, Senegal and South Africa, out of these countries Economic Growth having a positive long-run effect on FDI in five countries and export having a positive effect on FDI in four countries. The results of Granger Causality test reveals a short run bidirectional causality between FDI and GDP and unidirectional causality running from GDP to exports in Ghana. GDP causes exports in Benin, Congo Democratic and Galson and FDI cause exports in Cote d'Ivoire and Kenya. Bidirectional causality exists between FDI & GDP in Cameroon, Cote d'Ivoire and South Africa and between FDI, GDP and exports in Congo Democratic. There is bidirectional causality between FDP and exports in Congo and between GDP and export in Ghana. Therefore, the relation is varied across countries.

Kizilkaya et al. (2016) conduct a study to examine the dynamic relationship among cross border direct investment, economic freedom, human capital and economic growth covering 39 countries for the period 2000 to 2013. To establish a dynamic relationship, the researchers have employed panel co-integration, panel fully modified ordinary least squares (FMOLS) and panel vector error correction model (VECM) based Granger causality test. On the basis of test results they have pointed out: i) all the study variables are integrated in the long-run; ii) FDI human capital and economic freedom have a significant positive impact on GDP growth and iii) panel VEC results confirm the short-run and long-run relationship among these variables. Their study also reveals a bidirectional causal relationship between economic growth & economic freedom and a unidirectional causal relationship economic freedom, human capital and FDI to GDP growth.

3.2.2 Studies in the Indian Context

The relationship between foreign direct investment and economic growth in India has attracted good research interest from the academician, economic analysts and researchers worldwide. In this section, an attempt has been made to highlight the intricacy in the relationship that has been explored by the eminent researchers.

In a study, Nagaraj (2003) has made an attempt to investigate the trend, patterns and other important issues relating to FDI inflows in India. Besides this, the researcher has tried to compare these points with those in China. This study focuses on the volume of FDI approves and actual FDI inflows into India and observes only a third of cumulative FDI approval is realized in India. The researcher focuses on the point that consumer durable industries, registered manufacturing industries, automotive industries have been received most of the actual FDI inflows into India while a small

part has absorbed by capital goods industries. Interestingly, he observes maximum amount of FDI approvals is for infrastructural developments. This study finds and highlights the point that though India has increased the volume of FDI inflows heavily after liberalization since 1991, it is very small in comparison to China's FDI inflows. Moreover, he observes that in spite of a more stringent policy framework comparison to India, China's foreign capital inflows is much higher than India.

Kong & Saktivel (2004) try to explore the trend and pattern of foreign investment in India in the pre and post-liberalization period. This study also tries to concentrate to explore sector wise foreign investment flows, source wise break-up of foreign investment inflows, and attraction of foreign investment by Indian states. The empirical analyses cover the period from 1986 to 2001 and the DIPP, SIA newsletter, RBI database, Ministry of Commerce and Industry are major data sources. The study reveals that FDI have started flowing since economic reforms program in the 1990s although the significant flows have emerged around the mid-1990s significant flows have emerged around the mid-1990s. And in fact, even before the trend of rising direct investment has started, portfolio investment has appeared to forge ahead that the direct investment in a big way. The source wise breakup reveals that only five countries accounted for a major share of total FDI in India. And the analysis on the regional distribution of FDI in India suggests that only AP, Karnataka, Maharashtra, Tamilnadu and Delhi had mopped up half of the FDI inflows during the study period. Further, the study reveals that electrical equipment, Telecommunication, transportation, energy, metallurgical industry and industry and service sector have accounted for over one-third of the total FDI in India.

Srivastava and Sen (2004) investigate the effect of FDI inflows on the emerging Indian economy specifically after a decade in the era of liberalization (1991) and they

also try to explore the challenges in the global competition for FDI. This study further examines the impact on inward FDI to India as compared with another largest emerging market economy i.e. China, in the wake of its accession to the WTO. This article concludes that FDI has been lying on increasingly important role in the Indian Economy since the reforms were undertaken. This article indicates that India continues to be at the lower end with respect to the global competition for FDI, in spite of the opening up of significant market opportunity. India would need to overcome both domestic as well as external economic challenges to large advantage of these opportunities.

The dynamic relationship among foreign direct investment, trade and economic growth in India is investigated by Jayachandran and Seilan (2010) over the period 1970 to 2007. They have employed the Granger causality test to estimate the direction of the relationship among FDI, exports and economic growth rate. According to the results of the study, the researchers have found that there is no reciprocal causality relationship among these variables during the considered study period in the Indian context. They have pointed out a unidirectional causal relationship between FDI inflows and volume of export and the causality running from FDI inflows to exports. Likewise, they also have observed a unidirectional causal relationship between economic growth rate and volume of exports in India and the direction of causality is running from export to economic growth rate. But, interestingly they have not found any causal relationship between FDI inflows and the economic growth rates in India. Finally, the researchers have concluded that Indian economic growth does not have any influence on export promotion or foreign capital inflows but FDI inflows indirectly reinforce the economic growth process through the export promotion.

Pradhan (2010) has revisited the issue of investigating the long-run equilibrium relationship among financial deepening, cross border direct investment and economic growth in India in a time series framework during the period from 1970 to 2007. He performs the investigation by employing Johansen,s multivariate cointegration test and finds that there is a co-movement among foreign direct investment, financial deepening and economic growth. The researcher also confirms the bidirectional causality between foreign direct investment and economic growth on the basis of the result of Granger causality test. He also observes a unidirectional causal relationship running from financial development to foreign direct investment. The study finally concludes that financial deepening plays a pivotal role in contributing foreign inbound investment and economic growth by both directly and indirectly. The researcher recommends that policymakers should reform financial systems to bring more and more foreign direct inbound investment and enhancing the growth process of the Indian economy.

Prasanna (2010) has conducted a study to explore the impact of Foreign Direct Investment (FDI) inflows on the export performance in India, and for this purpose, the researcher examines the impact of inward FDI on the total manufactured export of India. He also analyzes the impact of inward FDI on the high technology manufactured export of India from 1991-92 to 2006-07. The study observes that inward FDI has significantly contributed to better the export performance of India for this study period and that Indian manufacturing has not significantly contributed to enhancing the export performance during the study period. The researcher also suggests that to develop the export performance of India sustainably and dynamically, which would, in turn, lead to faster growth of the whole economy FDI policies and other domestic policies cannot be perused in different water-tight compartments.

Instead, they must be blended together in order to achieve a complementary effect on each other.

Dash and Sharma (2011) in this study have empirically examined the relationships among FDI, Trade and economic growth in India for the period 1991 to 2006. For this study, the quarterly data of FDI, IIP, and export and import of goods & services are culled from the International Monetary Fund's International Financial Statistics (IFS) CD ROM, 2007. The Johansen (1991) method of multivariate approach is used to trace out the co-integration relationship among macroeconomic variables. The study reveals that there is bidirectional causality between FDI and economic growth. There also exists a unidirectional causality between export and FDI, this runs from the former to the latter. The result of Granger Causality shows that there is a presence of a two-way feedback relationship between FDI and imports.

In an explanatory study, Devajit (2012) makes an effort to appraise the role of FDI as a vital economic catalyst of economic growth in India through enhancing domestic investment, increasing human capital formation and ease of technology transfers. The study recognizes FDI as a strategic component of investment which will ensure sustainable economic growth and development through job creation, expansion of the existing manufacturing units, project initiation in the area of education, health and community development as well as research & development (R&D). The study advises the Government of India to design a more liberal FDI policy by opening up the export-oriented sectors and it concludes that higher growth of the Indian economy could be realized through the growth of these sectors.

The study of Guru-Gharana and Kishor (2012) tries to empirically analyze the relationship among the GDP, FDI and export in India on the post-liberalization period and also focus on the pre-liberalisation period, considering the annual time series data.

Export and FDI data which have been collected from the Handbook of Statistics of RBI and the GDP data have been collected from the issue of world development indicators of the World Development Report from 1911 to 2008. This paper applies Toda-Yamato-Dolado-Lut Kephol augmented VAR (P) technique for testing Granger causality among the FDI, GDP and EXPORT. The study reveals that there is a significant unidirectional causality from FDI towards both EXPORT and GDP and bidirectional causality between EXPORT and GDP in the post-liberalization period. This study also reveals that FDI seems to be largely decided by factors other than GDP or Exports, exhibiting some kind of "Exogeneity" or "external force" behavior.

Prasad and Sharma (2012) try to investigate the different issues relating to foreign direct investment in the contemporary Indian context likely, trends of FDI; country wise presentation of FDI; trends of flow of FDI into different sectors; etc. Finally, they have made an attempt to measure the impact of FDI on Indian economy after liberalization. After arranging the different statistics the researchers find that there is a copious open flow of FDI with almost 35 percent average growth rate. They have argued that relaxations of rigid norms for import-export, enlarging the limit of FDI in different sectors are the capital reasons for ample growth in FDI inflows into India. This huge flow boosts the exports consequently increase the volume of GDP which indicates the positive macroeconomic performance of the nation. These flows of FDI are diverted to mostly infrastructural sector following the manufacturing sector. Finally, the study recommends that India has to attract more and more cross border direct investment to make nation self-sufficient by arranging required facilities and providing foreign trade opportunity.

Using the time-varying co-integration approach for the time span 1990-91 to 2010-11, Ray (2012) tries to make an empirical investigation on the causal relationship between

cross border direct investment and growth of Indian economy in the era of liberalization. Further, the researcher conducts another empirical investigation to estimate the impact of foreign direct investment on growth of the economy. The results of Ordinary Least Square Method indicate that a positive significant relationship between the volume of FDI inflows and growth of GDP and vice versa. The outcome of unit root test shows that both economic growth and foreign direct investment were found to be integrated after first difference using the Kwiatkowski, Phillips, Schmidt and Shinn (KPSS) test for unit root only. The Johansen cointegration result confirmed that there is an existence of long-run equilibrium relationship between these two important macroeconomic variables, and the Granger causality test finally confirms the presence of unidirectional causality which runs from economic growth to foreign direct investment. For the long-run equilibrium relationship, the researcher evidenced statistically significant error correction term with an expected negative sign. This confirms that the FDI inflows have a significant contribution to GDP.

The study made by Saiyed (2012) examines the effect of foreign direct investment on economic growth in India in the post-reforms period, on the title “effect of FDI on economic growth in India: an empirical investigation”. To analyze empirically the role and effect of foreign direct investment on economic growth (GDP), the impact of foreign direct investment and the output – FDI relationship and their causality using annual data of Indian economy over the post-reforms period, 1990-91 to 2011-12. To analyze the annual data regarding relationship between FDI and economic growth and their causality applying computer software packages, namely, Econometric Views (3.0). From the analysis of double natural logarithmic regression, it is revealed that there is a strong positive correlation between foreign direct investment and gross

domestic product and also regression analysis reveals that FDI expansion has influenced output variables, changes in FDI causes annual output to increase. Another finding of this study is that whatever may be the cause in rising in stock of FDI in India, but it definitely leads to rise in the output growth.

Barua (2013) tries to point out the two most important benefits associated with the inflows of cross border direct investment for the host country in the form of export promotion and GDP growth. For that purpose studies of paper substantiate the need of FDI for the promotion of export and analyze the relationship between exports and FDI and the dependency of GDP growth on export and FDI during the period 2000 to 2012. To analyze the data correlation analysis, simple regression and multiple regression models have been used and ANOVA & Durbin-Watson test is used to explain statistical significance of the variables. The empirical results clearly advocate that inward FDI not only act as a vehicle for promoting the volume of export but it is obviously a significant parameter that can enhance the level of GDP of recipient economy. The researcher finally concludes that inward FDI can complement host countries economic development through uplifting technological capabilities, strengthening foreign trade competitiveness, develop the skill base of workforces and acquiring financial resources for development.

Tripathi, Seth and Vandari (2013) have made an attempt to analyze the existence of relationship between FDI and six macro-economic factors – exchange rate, inflation, GDP/IIP (market size), interest rate, trade openness and S&P CNX 500 equity index using monthly data for the period ranging from July, 1997 to December, 2011. To explore the short-run and long-run relationship the researchers have applied different advanced econometric techniques like Johansen co-integration test, vector error correction model, impulse response analysis. The study reveals a significant

correlation between FDI and macro-economic variables other than exchange rate. The causality results show that GDP/IIP, WPI and S&P CNX Equity Index are Granger causing inbound FDI in India, while trade openness is Granger caused by the same. The result also explains that all the macro-economic variables, other than exchange rate, are significantly affecting inbound FDI inflows and the overall explanatory power of the regression model i.e. adjusted R^2 is 75.7%. The results of the co-integration test advocate that there is a long-run co-movement between FDI and GDP/IIP, S&P CNX 500, trade openness and WPI. Impulse response analysis discloses that FDI is influenced more by its own lag values rather those of other macro-economic factors.

In an explorative study, Vasanthi and Arathi (2013) have attempted to find out how FDI is seen as an important economic factor of Indian economic growth by augmenting domestic capital formation, stimulating human capital and facilitating transfer of intangible assets namely, technology. Their study also tries to find out the important dimensions of FDI in India. They comment that FDI has played a crucial role in accelerating the economic growth of India. FDI as a strategic component of investment is required by this country for achieving the second generation of economic reforms and continuing this pace of growth of the economy. They argue that FDI provides a sound base for economic growth by enhancing the financial strength of the country. They finally conclude that FDI contributes to the GDP and foreign exchange reserves. Their study also recommends that MNCs should be allowed to invest in such a manner that these investments ensure the hike in standard of living of Indians instead of sole profit making.

Kirthika and Nirmala (2014) have made an attempt to establish the relationship between FDI inflows and its impact on India's economic growth, to investigate

whether there is a significant decrease or increase subsequent to significant decrease and increase in FDI inflows contributing to India's economic growth and development. To gauge the relationship they consider different macroeconomic variables namely, GDP, Gross National Product (GNP), balance of payment, total trade and foreign exchange reserves for ten year periods ranging from 2003-04 to 2012-13. On the basis of the regression results, they have concluded that inflows of FDI into India plays a crucial role in the volume of GDP, GNP, foreign exchange reserves, total trade and reduce the balance of payment. They have seen that, despite the troubles in the world economy, India is continued to allure a huge amount of FDI inflows. They also have found that FDI is the significant determinant influencing the volume of GDP in India that helps in promoting the trade and reduce the balance of payments in spite of the devaluation of the Indian rupee value that cause the movement in foreign exchange reserves. Therefore, they finally conclude that FDI provides a sound base for economic development by accelerating the macroeconomic environment.

Kumar (2014) has made an attempt to identify the factors which influence the flow of FDI in India and to investigate empirically the role and impact of FDI on growth factors and their causality using annual data of Indian Economy over the past reforms periods 1995-2014. The results of the empirical investigation estimate that out of a set of macroeconomic factors trade, GDP, reserve GDP and exchange rate are the principal determinants of inward FDI in India. The researcher also shows that inward FDI is a significant factor for influencing the economic growth in India.

Malhotra (2014) examines the role of inward FDI on the Indian Economy, particularly two decades after the liberalization of the economy and investigates the challenges to position itself favorably in the global competition for FDI. The study period ranges

from 1991-02 to 2011-12. The study reveals that, [Indian's FDI policy has been gradually liberalized to make the market more investor friendly] even though India has been a latecomer to the FDI regime in comparison with other East Asian economies, its huge market potential and a liberalized policy framework has sustain its attraction as one of the favorite destination for cross border capital holders. In this way, the researcher finally concludes that Indian Economy has considerable potential, as well as inward cross border capital, has had a positive impact on it. FDI inflows complement domestic capital as well as technology, skills and know-how of existing establishment. All of these contribute to economic growth of the Indian Economy.

Gupta and Garg (2015) have made a study to investigate the appropriate lag periods required for Foreign Capital inflows to make its utmost impact on the growth of Indian economy. The study also investigates the nexus between international cross border investment and Indian economic growth. The researchers exclusively consider secondary data which is collected from Time Series Publication of Data Base of Indian Economy (DBIE), Reserve Bank of India. The annual data of FDI and GDP is used for the period 2000-01 to 2012-13 to establish this relationship. They have employed regression model with a varying time lag to know the causal relationship between foreign inbound direct investment inflows and GDP. The empirical results of the study reveal that FDI impacts significantly and positively to Indian GDP growth when the time lag ranges between one to six years. But, they have found that when the time lag is three then the relationship is found to be very highly significant as all statistical values are in its favor. Besides this, the study concludes that FDI leads to propel the growth of Indian economy. The researcher also suggests in their study that FDI requires almost three years span to make its contribution towards growth of Indian economy in a significant and utmost favorable manner. The study recommends

the policymakers to improve the investment climate for inbound FDI through economic stability as well as political stability along with curbing corruption.

In this study Sahoo and Seith (2015) try to empirically investigate the dynamic relationship between economic growth and its four major determinants i.e. domestic capital, foreign aid, FDI and trade liberalization of India by using the annual time series data a long period from 1980-81 to 2010-11. Applying Johansen Juselius multivariate co-integration test and Engel-Granger causality test they conclude that out of the four macroeconomic variables domestic investment is only growth determining factor of India. Further, the study reveals that there exists a one-way causal relationship from domestic investment to economic growth and economic growth to foreign capital. The study also explores that there is no significant long-run impact of components of foreign capital i.e. foreign aid and FDI on economic growth of India even in the presence of trade liberalization. It is concluding that the utilization of foreign capital is not properly done in India. The study finally suggests that both domestic investment and foreign capital are fateful (crucial) for higher growth for a developing country like India.

Singh and Tandon (2015) have made an attempt to examine the causal relationship between FDI and export in India. They have collected all relevant data from the website of RBI (DBIE) for the period 1990 to 2013. They address their hypothesis empirically by using unit root test, Johansen co-integration test and Granger causality test through E-views software. The Johansen co-integration result indicates no co-integration between variables i.e. the result concludes that there is no long-run relationship between FDI and export. Moreover, the results of Granger causality test exhibits that there have not any causality between the variables i.e. neither Export Granger cause FDI nor FDI Granger cause Export in India.

By employing time series quarterly data for the period 1990-91 (Q1) to 2015-16(Q4), Chakraborty et al (2016) endeavor to explore the causal relationship between FDI Inflow and exports in the Indian economy. The data has been compiled from the Handbook of Statistics on Indian Economy (2015-16), published by Reserve Bank of India. The result of the cointegration analysis through VAR model reveals that while export influence FDI inflows, the reverse is not true. The study also demonstrates that instead of utilizing domestic resources for entering into the global market, FDI inflow in the country may rather primarily be targeting the growing domestic sector. It concludes by suggesting that there exist enormous scope for better utilization of the India – centric trade and investment agreements.

The study of Sharmiladevi (2016) tries to investigate the relation between FDI and economic growth in recent past literature. The study considers the literature starting from 1990 to end with 2014. The study explains on the basis of the literature that, there are increasing numbers of studies those support that inbound FDI causes economic growth. The researcher also advocates in this regard that differences in the results can be attributed to various factors like use of time series data of different time span, use of methodological aspects for overcoming stationary issues and capturing inbuilt structural break; model applied for analysis of causality, VECM/VAR model. He also observes that it is a long process to materialize the benefits of FDI. This process depends upon plenty of factors like existence of linkage between local and foreign affiliation, inter-firm linkages, overcoming socio-cultural environmental differences, absorptive capacity of human resources, government initiatives.

Thomas (2016) tries to investigate the impact of inbound FDI inflows on emerging Indian economy for the past fifteen years data ranging from 2000 to 2014. This study analyses the relationship between cross border direct investment and economic

growth as well as it investigates the impact of this investment on Indian economic growth. The relationship and impact have been studied by testing the correlation with the Indian GDP and major Stock Market Indices. The analysis considers Sensex and Nifty as the major Indian stock market indices. On the basis of the estimated results, the study concludes that the flow of inbound FDI into India plays a principal role in deciding the stock market movements.

Vikram (2016) conducts a study to examine the relationship between foreign direct investment and the Indian economic growth in the light of changing scenario of financial market by considering India's experience during the year 2000 to 2014. The researcher has considered the relationship by testing the correlation between the volume of FDI inflows & economic growth rates and participation of FDI into Indian GDP & economic growth rates. His study fails to find out any significant positive correlation between foreign substantial capital inflows and economic growth rates. Also, this study reveals that there is no significant statistical relationship between FDI to GDP ratio (FDI/GDP to economic growth) and economic growth rates. He recommends that it is better to assess the impact of foreign capital in the growth of each project and its linkage with broad development objectives, such as GDP growth and its distribution, employment generation, absorptive capacity of technology and expertise and stability in the balance of payments.

In a study, Choi and Baek (2017) investigate the productivity spillover effects of inward cross border direct investment into India under the cointegrated vector autoregression (CVAR) framework. They have used GDP, labour and capital to estimate the total factor productivity and the annual data of FDI have taken as Indian inward FDI inflows. They have applied the Solow residual approach to estimate the impact of inward FDI on spillovers to the aggregated total factor productivity. On the

basis of the CVAR results, they have pointed out that FDI inflows into India indeed has a positive effect on total factor productivity growth through spillover effects and also have observed that exports of India appear to have a detrimental effect on total factor productivity growth. They have suggested the policymakers of India to frame a more active and open policy to catch foreign capital inflows in selected sectors as FDI has the potentiality to propel the economic growth in India. Finally, the study recommends introducing and transferring the existing industry to high-tech advanced industries that can have positive impact on foreign capital and exports, thereby boosting India's total factor productivity growth.

Using yearly data from 1972 to 2013, Jayaraman, Choong and Ng (2017) have tried to investigate the long-run relationship between cross border direct investment and economic growth in India providing extra emphasis on the role of financial sector development. They have employed bound test for cointegration under Auto Regressive Distributed Lag (ARDL) technique to establish the long-run relationship among the FDI, capital income, openness of the economy and investment & credit to private sector. From the analysis they have found that FDI cross border direct investment stimulates the growth process of India through financial sector development. They have also concluded that the interaction term between cross border direct investment and financial development shows a complementary relationship between the two. Finally, they suggest the policymakers to encourage the spread of branches of financial institutions towards the promotion of better financial inclusion and put efforts towards improving better access for enhancing the contribution of cross border direct investment to GDP.

Zafar and Ahmed (2017) have made an attempt to investigate and evaluate the distinguish impact of policy initiatives and recent amendments in FDI policy and its

overall impact on Indian economy. Further, this study provides suggestion relating to rational and strategic approaches for better future and overall development of nation's economy through FDI. The study has been undertaken overall secondary data and sector-wise data on FDI (RBI annual reports, DIPP reports, etc.) during 2011 to 2016. The outcome of the conducted study exhibits that the policy initiatives and amendments generate positive impact which enhances the nation's economic pace. The study further reveals that cross border direct investment inflows at both micro and macro level have been promoted the industrial production and general price level of the economy. Finally, the study observes the important role of FDI to enhance the output, productivity, domestic consumption and export of the respective sector.

Sahu and Pandey (2018) have made an attempt to investigate the dynamic impact of cross border direct investment on index of industrial production as a proxy of Indian economic growth by applying Johansen's co-integration test, Vector Error Correction Model (VECM) and Vector Error Correction Granger causality test for the period of 1981 to 2016. The estimated results of the co-integration test and VECM indicates that there exists a long-run positive co-integrating relationship between FDI and economic growth measures by Index of industrial production. The estimated results of the VECM advocate that any change in the value of FDI causes the industrial production in India in the long-run but the reverse is not true. The short-run causality test results suggest a bidirectional causal relationship between FDI and IIP. The study finally concludes that FDI plays a crucial role in enhancing economic growth through industrial production.

3.2.3 Cross-Country Analyses of FDI and Economic Well-being

The role of FDI in economic growth of various emerging economies has kindled the interest of many researchers in the recent past years. In this section, we review only

these studies that have made comparative analysis among emerging economies obviously taking India into perspective.

In a country wise comparative study, Kalirajan and Mainkhel (2009) employes vector error correction model (VECM) under time series framework to gauge the dynamic relationship among foreign direct investment(FDI) inflows, volume of exports and GDP growth for Indian, Pakistan, Malaysia, Mexico, Thailand and Chile, covers 36 years data during 1970 to 2005. They also have adopted the model of stationary of the study series with structural breaks. Their exhibited results of South Asian countries support the export-led growth hypothesis at both the short-run and long-run. In the case of India, GDP growth attracts FDI in the long-run. In the case of Pakistan, GDP growth leads to exports volume. By considering the East Asian countries they have found that in Thailand GDP growth leads export volume whereas in Malaysia there is a complementary causal relationship among FDI, export and GDP growth. They do not find any short-run causal relationship among the study variables for these countries. In the case of Latin American countries, Mexico and Chile, they observe a driving role of export on FDI inflows as well as GDP growth rates. But, in the short-run they document different scenario for both countries such as GDP is driving force to promote export and FDI inflows in Mexico but in Chile, foreign capital is driving force to favour growth and volume of exports. They argue that these heterogeneous results for all study countries may be due to the fact that each country is at a different stage of development and has adopted different policies at different points of time to attain the present stage of development.

Vadlamannati (2009) has made an attempt to investigate the impact of India on FDI inflows of its other economics, more particularly on its immediate neighbors in South Asia. This study also tries to find out the trend of FDI inflows in different South

Asian countries. And it also investigates the conditional effects on Indian economic reforms on the FDI inflows of its neighbors. The empirical analysis focuses on the date (FDI) beginning in 1975 and ending in 2006. The major data sources are the database on FDI of United Nations Commission for Trade and Development and World Bank's World Development Indicators 2006. This empirical analysis includes different standard determinants, which are economic growth rate, economic development, population level, trade openness, financial openness, inflation, exchange rate, institutional quality, infrastructure, human capital and liberalization. The empirical analyses of the study establish a favorable positive impact of inward FDI in India on its neighbors in conditioned by economic reforms have been made by India. Furthermore, the researcher evidences that the negative effect of reversal of Indian economic reforms on neighbors inward FDI.

Duan (2010) attempts to assess the overall trends and industrial pattern of inward FDI in the BRICs, in a comparative manner and explores the determinants causing the same between 1990 and 2007. It is evidenced that the overall trend of the inward FDI in the BRICs is increasing but at slow pace. Moreover, the absorptive capacities of FDI inflows are different for each country. In Brazil, Russia and India, the tertiary sector absorbs the highest volume of inward FDI on average over the past decade, while the primary sector receives the least and the secondary sector is in the middle. However China is enjoying exceptional industrial patterns of inward FDI, i.e., among the three sectors the secondary sector absorbs the capital portion of the inward FDI whereas primary and tertiary sectors receive least attention. Lastly, the study concludes by suggesting three determining factors of the investment patterns of inward FDI, namely, develop courses, natural and human resources and the business environment.

Panigrahi and Panda (2012) have made an attempt to explore the factors which are significantly related and influenced the FDI inflow into India, China and Malaysia during the study period ranging between 1991 and 2010. The study further examines the trend of FDI inflow to the above-mentioned countries to signify the relative importance of the factors deciding FDI inflows. This study is conducted by using the information obtained from world development indicator and correlation has been used to study the factors influencing FDI inflows. The study reveals that Malaysia is quite different in its approach to attract foreign investment better than that of China and India. GDP of the country, Gross capital formation, capital infrastructure, external debt, export and import volume are the major factors that significantly influence FDI into two highly populated, fast-growing Asian countries i.e. India and China. But in the case of Malaysia, only domestic capital formation is significantly related or domestic investment to its FDI inflow.

In a comparative study between India and China on flow and patterns of foreign direct investment and economic development, Iqbal, Masood and Ramzan (2013) have applied a purely exploratory qualitative investigation to search whether India or China is in better position for fetching more foreign investment and propelling their economic growth. For comparison, they have collected secondary data of International Monetary Fund (IMF), World Bank UNCTAD investment reports. In this paper, they observe that China has been receiving more FDI inflows as compared to India due to various facts like China open its economy to foreign investors in 1979 and has been continuously liberalizing its investment policies. Whereas, India takes comprehensive steps towards liberalization in the year 1991, more than a decade following China's liberalization. Besides they find that China has been providing low labour costs, better infrastructure, potential foreign markets and adopting proactive

initiatives for attracting more FDI. They have also found that purchasing power parity and annual GDP growth rate are comparatively better in China's economy.

Mora and Singh (2013) have made an attempt to examine the experience of ten Asian Countries with respect to growth, trade and FDI. They also have made an attempt to explore the relationship between the nature of exports and imports and growth, as well as the relevance of FDI as a channel for these relationships. For this study, the corresponding data has been collected only from a separate secondary source. The data study focuses on the data beginning in 1984 and ending in 2000. The study finds that FDI is positively correlated with higher productivity levels in exports and imports for many of the countries.

2.4 Foreign Direct Investment (FDI) in the Sectoral Context

The relationship between foreign direct capital investment and economic development of a country has attracted good research interest from the academician, economic analysts and researchers from the domain of development economics of various developed as well as emerging economies. The impact of cross border direct investment and economic growth in India has been well researched. However, literature on sector-specific analysis of FDI-growth relationship is really limited in numbers. A rigorous review of economic literature gives us a few studies that consider the importance of sectors in the FDI-growth relationship. This section presents a brief account of those studies for which are conducted to test the effect of FDI on the growth of different sectors or in some cases a specific sector of an economy.

Iyer (2004) tries to fill the gap (intra industry spill over in Indian manufacturing and spillover effects of forward and backward linkages created by MNCs) by attempting to find out whether foreign firms have productivity-enhancing effects or productivity hampering effects upstream or downstream to foreign firms. For this study, the corresponding data have been collected only from the secondary sources. This study is conducted using the data over a 12 years period from 1992 to 2004. The study establishes the presence of spillover effects on domestic firms due to horizontal, backward and forward linkages with foreign firms in the Indian manufacturing industry, which affect domestic firms' productivity. The study also reveals that inter-industry spillover is negative for some industries.

Mathiyazhagan (2005) tries to empirically investigate the long run relationship of FDI with the gross output, export and labour productivity using the panel cointegration test on sector level data of Indian economy ranging from 1991 to 2001. The results of the test demonstrate that the inflow of FDI in core sector of the economy has assistance to raise the gross output, export and labour productivity in the same sector but a better role of inflow of FDI at the sectoral level is still expected. The results also find that there is no significant cointegrating relationship among FDI, gross output, export and labour productivity. Finally, the study concludes that the advent of the FDI has not assistance to govern a positive impact on the Indian economy at the sectoral level. Lastly the researcher is advised to policymaker to open up export-oriented sector with FDI and achieve higher growth.

Aykuy and Sayek (2007) have made an attempt to develop an understanding whether or not the sectoral composition of FDI matters while contributing to the economic growth of the recipient country using a data set contains thirty-three countries from different continents. The study shows that the sectoral composition of inbound FDI

plays an important role in influencing economic growth. They have found that FDI in the primary sector is expected to generate mostly negative effects on the host countries economy through the following factors which are expected to dominate: effect on the local market structure, possible effects through influence of the real exchange rate which is popularly known as Dutch Disease effect and lack of linkage of the industry with the local economy. As far industrial sector is concerned, the researchers suggest that the manufacturing sector will generate favorable growth effects in the local economy due to its forward and backward linkage. They also have found contrary to the manufacturing sector FDI, FDI in the service sector on economic growth is much less straight forward as per prior expectation regarding the influence of FDI. The cross-sectional empirical evidence suggests that both the level of FDI inflows and the sectoral composition of these inflows are significant contributors to economic growth. The result is also evidenced that there exists a significant and positive effect on economic growth when sectoral composition of FDI gets skewed towards the manufacturing sector. Contrary to the manufacturing sector, there is a significant and negative impact on economic growth when the sectoral composition gets skewed towards the primary and even if service sector.

Wang (2009) has made an attempt to develop an understanding of the contribution of inward FDI on economic growth by using FDI in different sectors. For this study panel regression has been employed on a sample of 12 Asian economics over the 10 years period ranging from 1987 to 1997. The regression result suggests different types of FDI must have different impacts on host countries economic growth. The study finds an important role of inward FDI in the manufacturing sector to promote economic growth but inflow of FDI in the non-manufacturing sector does not. Finally,

the result explores that total FDI inflows underestimate the actual effect of manufacturing FDI on host countries economic growth at least by 48 percent.

The study by Sen (2011) provides some fresh empirical evidence on growth dynamics in India using annual time series data of FDI, agricultural output, manufacturing output, service output, output of financial services, output of community & social services and trade-related services from 1970 to 2008. The researcher has made an attempt to see whether the growth in the volume of FDI inflows has any significant positive influence of the service sector growth. The author also intends to examine the impact of service sector on overall GDP growth in India. According to the regression results, the author advocates that the service sector of this country has significantly influenced by inflows of foreign direct investments and this growth in the service sector reinforced the GDP. Again, the regression results of the sub-sectoral analysis indicate that trade, trade-related activities and communication sectors contribute most in the volume of service sector in India. In the end, the author concludes that FDI can be established as a propagator of Indian economic growth through enhancing the output growth of service sector.

Using the cointegration and VECM causality analysis on quarterly time series data covers the period from 1st quarter 1996-97 to 4th quarter 2010-11, Dash and Parida (2012) investigate the linkages among FDI inflows, service trade of both imports and exports and sectoral output. They also try to enquire the linkages for both the manufacturing and service sector at both the aggregate and sector levels. Considering the cointegration results the researchers confirm that all the study variables have the co-movement in the long-run at the aggregate level as well as sector level. They observe a bidirectional causal relationship between FDI & GDP and service export and GDP. Similarly, they have revealed a complementary relationship between FDI

inflows and service exports. Conversely, they cannot find any causal association between FDI inflows and services imports. In a nutshell, they brief out the study providing three significant findings as follows: i] FDI inflows and export of services output have been influencing service output and aggregate GDP and vice versa in India. ii] a complementary relationship exists between FDI inflows and export of services output and iii] presence of cross-sectoral spillover effects between manufacturing and service output. They finally recommend that the policymaker of India should highlight enhancing the growth and export promotion of the service sector along with other policy measures.

Choudhuri, Pyne and Chowdhury (2013) have made a study to identify the determinants of manufacturing sector FDI in India through a panel data analysis. The data used for analysis have been collected from the Annual Survey of Industries and matched with FDI data from DIPP and firm-level data from the PROWESS database. The study period ranges from 2003-04 till 2009-10 and to analyze the data OLS regression model is used. The analysis shows that the flows become significantly higher in the year 2000 and thereafter specifically in services sectors. Manufacturing FDI poured in significantly in drugs and pharmaceuticals, chemicals (excluding fertilizer) and automobiles. Major parts of the FDI were domestic market driven, cost-efficiency seeking and export-oriented. Another result finds in this study that, manufacturing FDI in India is significantly negatively affected by tariffs, import-intensity and R&D intensity whereas it is significantly and positively impacted by concentration of market power. The result also shows that FDI has been lower in high-cost sectors more dependent on imports and high- tech firms are generally less dependent on FDI.

Agya and Wunuji (2014) have made an attempt to examine the causal relationship between FDI & Economic Growth considering Primary, Secondary & Tertiary Sectors data ranging from 1995 to 2010. Granger causality methodology in E-views 7 has been used for testing the causal effect among the variables. The result of empirical analysis concludes that bidirectional causality between FDI inflow in secondary industry and economic growth, and unidirectional causality from economic growth to tertiary FDI inflow into the tertiary industry, but FDI don't cause economic growth in primary industry. They also provide some recommendations to reap up the benefits from FDI inflows which are – 1) Policy should make strategically as different industries have different causal effect on economic growth. 2) The government should be divided foreign investment market to encourage restricted and provided industries & finally the country should be emphasized on the specific secondary & tertiary sector of the economy as per necessity.

In a study, Choudhury (2016) has made an attempt to investigate the efforts and policy issues of India to allure FDI flows into the primary sector of the country. Also, she has revisited the most debatable issue i.e. inflows of foreign capital into the agricultural sector and its impact on this sector. In this explorative study, she observes that FDI plays an important role in enhancing productivity and exports by offsetting the investment and technological gap. She argues that India is losing its attraction as a host country. She provides a list of facts and figures that represent the positive impact of foreign investment on agriculture services on the development of rural infrastructure. In the case of FDI inflows to the fertilizer industry in India, she advocates that FDI has improved the technology in the fertilizer industry and has improved the quality of fertilizer. Further, in the case of FDI inflows to agriculture machinery, she observes that foreign capital inflows to agricultural machinery have

influenced the Indian agriculture sector in recent years. Finally, she recommends Indian policy makers to introduce effective policies to attract more FDI in the agriculture sector.

3.3 Foreign Portfolio Investment (FPI) and Economic Development Nexus

3.3.1 Studies in Foreign Context

The following literature provides representative sample studies which are reviewed to explain the relationship between foreign portfolio investment and economic development either directly or indirectly through capital market development of some developed and developing countries and intended to identify the impact on the economy, methodology and econometric testing of the various studies in this area of research.

Duasa and Kassim (2009) have made an attempt to analyze the relationship between the flow of foreign portfolio investment (FPI) and economic performance of Malaysia. For this study, only secondary data has been considered and the data ranges from first quarter of 1991 to fourth quarter of 2006. The study further enquires the relationship between foreign portfolio investment and gross domestic product (GDP) applying the widely adopted Granger causality test and the Toda and Yamamoto's non causality test to estimate the causal relationship between the two variables. Except that the study uses an innovation accounting by stimulating variance decompositions and impulse response functions for further inferences about forecasting. The researchers find that the inward investment by the FPI and its volatility depends on the growth of GDP and not vice versa. Moreover, the researcher corroborates that

economic performance of Malaysia is the driving factor in alluring inward FPI investment into the country since the causality is running from GDP to FPI inflows. At last, the researchers recommend that to ensure investor confidence in the economy, the particular economy should maintain a sound and sustainable growth path.

Using annual data covering the period during 2001-2013, Ahmad, Draz and Yang (2016) attempt to investigate the causal relationship between foreign portfolio investment (FPI) inflows and economic growth (measured through GDP) of 5 developing countries of South East Asia, namely, Indonesia, Malaysia, Singapore, the Philippines and Thailand which are called ASEAN5 in literature. The result of the Granger causality test reveals that FPI causes economic growth in all the selected countries except Singapore. It is also evidenced that FDI is playing its pivotal role in fostering economic growth of Singapore but not vice versa. However, FDI inflows are also amplifying FPI for Indonesia and Malaysia.

An important study undertaken by Shanab (2017) explores the impact of foreign portfolio investment (FPI), both in buying of shares and selling of shares by overseas investors, gross domestic product and inflation on the market capitalization in the Amman Stock Exchange with sixteen observations during 2005-2016. The results of the analysis exhibit a positive and statistically significant relationship that exists between GDP, FPIB and FPIS with MC. However, there is no statistically significant relationship between inflation and MC.

Taking into account a panel of 19 countries consisting 11 developed countries and 8 developing countries, Singhania & Saini (2017) seek to identify various factors (both push and pull) affecting foreign portfolio investment (FPI) inflows in developed and developing economies and analyzes their performance during different phases of the economic cycle during the period of 10 years (2004 – 2013). They also attempt to

explore the rationale for FPI attractiveness among different sets of countries. Data has been collected from Bloomberg database and also from heritage foundation. The results of both the static and dynamic panel data analysis authenticate that both pull and push factors determine the FPI inflows in developed and developing countries. This study also evidences from the static panel analysis that interest rate differential, trade openness, host country stock market performance and US stock market returns are having momentous pressure explicitly over the FPI inflows in the case of developed countries whereas freedom index, that interest rate differential, trade openness, host country stock market performance, US stock market returns and crisis period (2006 – 2008) significantly influence the FPI inflows in the developing countries. The result of the dynamic panel data analysis confirms that freedom index, interest rate differentials, host country stock market performance and US stock market significantly affect the inflow of FPIs in all the 19 countries.

3.3.2 Studies in the Indian Context

The main motive of this section is to review the existing empirical literature on trend and impact of FPI inflows in Indian economy.

Pal (1998) has made an attempt to investigate the impact of the influx of foreign portfolio investment on the Indian economic development. Also, he highlights the development of Indian capital market since 1980s. Further, the researcher discusses about the various institutional factors which may influenced FII inflows into India. Another inquiry has been made by the author to find the linkages, both theoretically and empirically, between the movement of stock market and domestic savings rates of India. The author argues that benefits of FPI accrue through the capital market which may not actually materialize positively for any country. He also argues that movement of Indian capital market is not always rational but in many cases it reacts by

speculative activities. Consequently, no real changes have happened by this hot money in terms of FPI. Therefore the developing countries like India have threatened by speculative attack. Finally, the study concludes that economic as well as financial liberalization does not uplift the gross domestic capital formation and domestic savings rather it leads to instability in the financial sector.

Using the quarterly data from 1993:Q1 to 2009:Q2, Mishra, Das and Pradhan (2010) have examined the causal relationship between cross border institutional investments and the real economic growth in India. In order to address the objectives, they have employed an estimation of the time series vector auto regression model for FII and real GDP. Their investigation provides the evidence of bi-directional causality between net FII inflows and volume of real GDP. Finally, they advocate that the volume of real GDP of India both determines and determined by the inward cross border portfolio institutional investments in the country. The inflows of foreign institutional investments have the potential of accelerating the process of economic development of India through the significant positive impacts on macroeconomic fundamentals of our country. They also recommend that the policy makers of our country should provide foreign portfolio investments with more opportunities and reasons to invest in our large potential markets by suggesting and implementing prudential norms.

In a study, Sumanjeet and Paliwal (2010) have revisited the issue of liberalization of foreign institutional investments in India. They have stated that a significant volume of capital is flowing from developed countries to emerging economies. Out of which foreign institutional investments have been the most dynamic source of foreign capital to developing countries since 1990s. they also show that positive fundamentals, removal of structural restrictions make India as an attractive destination for foreign

investors and consequently FIIs hold the key position of Indian equity market. But, at the same time the researchers observe that volatility in the flow of FIIs and its impacts on various sectors of the economy. They identify another point on the volatility in inflows of FIIs that it leads to influence of changes in regulatory framework. They have tried to investigate the determinants and destinations of FII inflows but do not get any conclusion on how they impact on economic development India. Finally, they have concluded that any problem associated with FIIs is basically a problem of management. They advise Indian policymakers to develop new sophisticated tools to reap up the benefits from FIIs effectively and efficiently.

Walia, Walia & Jain (2012) investigate the contribution of FII in sensitivity index (SENSEX) as well as attempt to understand the behavioural pattern of FII during the period of 2001 to 2010 and examine the impact of FII on the volatility of BSE SENSEX. This study is conducted by using the information obtained from the secondary sources like the website of BSE SENSEX. To analyze the data Karl Pearson coefficient of correlation has been used as major statistical tools. The study reveals that the FIIs are influencing the sensex movement to a greater volume. Further, it is evident that the Sensex has increased when there are positive inflows of FIIs and vice-versa.

Jain, Meena and Mathur (2013) explore the impact of foreign direct investment and foreign institutional investor's investment on the economic growth in India. This paper also shows that behavioral pattern of investment by FDI and FII and the role of these two in the Indian economy during 2000-01 to 2009-10. Correlation analysis is used to analyze the data. The analysis revealed that FII and FDI are influencing the economic development to a greater extent. The study also reveals that FDI is preferred over FII investment since it is considered for being the most beneficial form of

foreign investment for the economy as a whole. The Pearson correlation values indicate a positive correlation between both the foreign institutional investment or foreign investment and GDP.

Considering monthly data on foreign institutional investment (FIIs) from May, 1993 to March, 2013, month end exchange Rate of Indian rupee, Sensex, Index of Industrial Production (IIP), Money Supply (M_3) and Wholesale Price Index (WPI) collected from Handbook of Statistics on Indian Economy published by RBI, Kaur and Dhillon (2015) try to assess long-run causal relationship of FIIs with stock prices and other macro economic variables in India putting extra emphasis on determining whether or not FIIs pamper in herding behavior to undermine the capital market. The researchers have revealed a bi-directional causal relationship between net FII investment and capital market index (Sensex) from the analysis of long-run causality test. It is due to the fact that FIIs assist in ‘momentum’ or ‘positive feedback’ trading hypothesis. Absence of causality from exchange rate to FIIs investment is also found in the study which increases the scope of profit booking propensity of FIIs through speculative transactions due to having prior information on exchange rate performance which indicates the infantile behavior of the Indian financial system to absorb the gigantic capital inflows. Also, they corroborate the existence of bi-directional association between FIIs investment and IIP which signifies the importance of FII to boost up the Indian economic growth. It is further highlighted that domestic inflation (measured through WPI) has an impact over FII investment. To the further extent, it is also established that foreign investment ultimately generates the inflation dilemma through raising the availability of domestic money supply (M_3) and deflation by way of declining in money supply. Thus, the study suggests either strengthening the absorption capacity of massive capital inflows or

imposing restrictions over liberalization of capital inflows into India in order to sustain FIIs investment given the healthy domestic economic variables which throw a light upon FIIs investment volatility in the Indian financial as well as economic system. The study concludes by mentioning the prevalence of herd behavior of FIIs in the Indian stock market, and the chances of instability is higher since it sale herds during the period of adversity which are profoundly embedded and may eventually end up with financial crisis.

Agarwal (2014) has made an attempt to make an understanding of few major causes like IPO size and market capitalization as major forces in attracting Foreign Institutional Investors inflows into the Indian Primary Market, and also try to analyses the role of VII into capital formation in India. The necessary data for empirical analyses are collected from the website of RBI and SEBI, for the period 2009 to 2011. The study reveals that there is a dependency of FII inflow into IPOs on the IPO size and market capitalization. It also concludes that IPO size stands as a distinguishing factor to attract FII inflows into IPOs. This the market capitalization of IPOs at the time of issue does attract FIIs. Therefore FIIs (might even) feel secured to invest in those IPOs whose market capitalization at the time of issue is high.

Kulshrestha (2014) attempted to find out the impact of FII on the Indian Capital Market and behavior and trend of FII on Indian Stock Market. He also determines the factors that influence investment decision of FII and examine whether FII have any influence of major Stock indices. For this study, the sample data consists of 2931 observations starting from 2000 to 2011. The study observes that the investments by FII and the movement of major Stock indices (SENSEX & NIFTY) are quite closely correlated and it has significant impact on the movement of Indian Capital Market. This signifies that the market rises with increase in FII and collapse when FII are

withdrawn from the market. Furthermore, the study indicates that FII investors have emerged as the most dominant investor group in the Indian domestic capital market particularly in the companies that constitute in BSE -SENSEX and CNS-NIFTY.

3.4 Joint Impact of FDI and FII on Indian Economy

Unlike FPI, FDI has comparatively established theories. FPI models are simple and generally testable, whereas, FDI models are intricate, comprehensive and qualitative. In spite of that, some studies on different countries have considered both streams simultaneously and linked it with growth; those are mentioned in this section.

Sultana & Pardhasaradhi (2012) have made an attempt to investigate the trends and patterns of foreign capital flow into India in the form of FDI & FII. Further, the researchers try to explore the relationship and impact of FDI and FII on Indian Stock Market using statistical measures like correlation coefficient and multiple regressions. For this study, data have been collected only from the secondary sources. The study period ranges from 2001 to 2011. The study reveals that there is a increasing trend of FDI and FII inflows in India during the study period except in the recent past two years. And, during 2002-2004, FDI is negative and during 2003 to 2006 FII is also negative. Further, the study evidences that there is a strong positive correlation between FDI & NIFTY. This study also observes a moderate positive correlation between FII & sensex and FII & NIFTY. Finally, the study concludes that the impact of FDI & FII on the Indian stock market is significant.

In a comparative study, Menani (2013) attempts to discover the implications of both the prominent form of foreign capital, namely FDI and FII, on Indian economic growth during the period 2000 to 2012 through advanced time series econometrics. He further analyses the degree and magnitude of correlation coefficient among the

FII, FDI and nominal GDP per capita as a proxy of real economic growth in India over a span from 2000 to 2012. The researcher argues that a significant volume of foreign capital has been coming through both the form as mentioned above but FDI should be preferred in the point of substantially as compared to FII which are volatile in nature. The study documents causality results up to three lags among the macroeconomic variables. Considering one lag he reveals that there is no causal relationship among GDP, FDI and FII except a unidirectional causality running from FII to GDP. Further taking two as the lag length he observes almost similar results of no causality but presence a unidirectional causality conversely from GDP to FII. Finally, considering the three as the optimum lag he does not find any causal association among the three macro variables.

Singh (2013) tries to examine the trend and pattern of FDI and FII's in India and to study the rules and regulations related to FDI & FII. This study also attempts to explore the relationship between FII's and FDI's and Indian Stock Market. The empirical analysis consider 13 years data starting from 2000 to end with 2013, and the websites of BSE and NSE, DIPP and bulletins of RBI are major data sources. This article concludes that both the FDI and FII help in accelerating the growth in the Indian economy and also gave immense opportunities to Indian industry for technological know-how, expertise management skills, large scale employment and effective utilization of natural resources. According to the results obtained by using Karl Pearson's correlation coefficient the study evident Positive correlation between FDI & Sensex and Nifty.

Kumar (2014) has made an attempt to analyze the trend of FDI inflows into India and to find the correlation between (among) FDI, FII and GDP of the country. The study period ranges from 2001 to 2014. To analyze the data correlation and regression

analyses have been used as major statistical tools. The researcher has shown that the China and many other developing countries are in a better position in comparison to India in respect of the flow of FDI. Again the study documents that the continuous increase in inward foreign capital invested across the sectors and industries has established that foreign investors have confidence in the resilience of economic strength. Furthermore, the researcher evidences that there is a positive correlation between inward flow of FDI and FII. Again the study shows a positive movement of GDP with the inward flow of FDI in India. Finally, the researcher concludes on the basis of the estimated results of the correlation between GDP and FDI that both are positively correlated with each other.

Majumdar and Nag (2014) have extended the literature by analyzing the several characteristics of capital flows dominated by FDI, FPI, banking capital and commercial borrowings and thereby try to address six different dimensions of inflows of cross border capital namely; composition of capital inflows, behavior of gross capital inflows and net capital inflows, substitutability across inflows, volatility and persistence of capital inflows and cyclical behavior of the foreign capital flows. From the fact, figure and feature analysis they reveal that foreign investment is the dominant part of foreign capital inflows, followed by loan and banking capital inflows. Secondly, they find that gross inflows of disaggregated form of capital are more voluminous, comparatively more volatile and also more persistence than net inflows. Thirdly, they have observed that FPI and banking capital are the most volatile components of foreign capital, followed by direct investment and commercial borrowings. Finally, they have pointed out that the net volume of capital inflows into India have held more persistence during the last decade of their study period and the

degree of persistence significantly differs across the types of flows. In this regard, they observe that banking capital is the most volatile in nature, followed by FPI.

Rani and Kumar (2015) have made an attempt to investigate the contribution of both the substantial and volatile form of cross border investments by analyzing its trends and patterns. Also, they have tried to find out the relationship between foreign investment and Indian capital market considering the 14 years data during 2000 to 2014. To address this relationship they have applied correlation and multiple regression analysis. On the basis of the empirical results, they advocate that both the types of foreign investments, Foreign Direct Investment and Foreign Institutional Investment (FII), are influential for Indian capital market except an insignificant relationship between FII and BSE Sensex. But they find another interesting point that FDI has more prominent relationship with Indian capital market in comparison to FII. To keep in mind the long-run economic development, they advise the policymaker to concentrate more on FDI as compared to FII as FDI impacts Indian stock market more. They also have observed that FII is unpredictable and short term nature. Therefore, they recommend that FDI should be more emphasized in comparison to FII as FDI is the most beneficial form of cross border investments for a developing country like India.

Sood (2015) has made an attempt to empirically examine the importance of FDI and FII for the economic growth of India during 2001-2015. In order to achieve the objective of the paper, data have been collected from RBI Bulletin, DIPP, UNCTAD FDI Statistics, Economic Survey of India and Ministry of Commerce and Industry data. The empirical analysis is done using correlation and regression analysis. The result of the study signifies that economic growth of India is greatly affected by FDI inflows whereas the role of FII for the economic growth of India is statistically

significant. Another part of the study analyses the sectoral distribution of FDI and show that service sector captures the lion share of FDI inflows in the said economy. This study also investigates the country wise inflows of FDI and consequently ranked the countries.

3.5 Other Related Literature

Besides, this study considers some relevant studies related to economic wellbeing and many other macroeconomic variables like exports, exchange rate, IIP, stock indices and so on.

The studies by Dhawan and Biswal (1999), Kundu (2010), Love and Chandra (2014) investigate on export-led growth conceptualization and documents export-led growth hypothesis. But, Mishra (2011) shows rejection of this hypothesis. However, Adhikary (2012) shows a significant impact of FDI on export promotion. Conversely, Sharma (2000) and Sultan (2013) evidence that FDI does not impact export performance. Although, Goswami and Saikia (2012), Jamid et.al. (2016) reveal that FDI and export affect each other. Goldberg and Klein (1994), Russ (2007) and Takaji and Shi (2011) have enquired the relationship between FDI and exchange rate and find the significance responses of FDI to exchange rate volatility. In a study, Ahmed (2008) shows FDI causes stock prices movement, whereas reverse inference documents by Ray (2012). Again, Ahmed (2008) evidences of the role of the stock prices movements on the Index of Industrial Production. There is some studies concentrate on the determinants of FDI by Tsai (1994), Chunlai (1997), Ali and Gue (2005), Vijaykumar (2010) and point out market size and trade openness are the common factors and sporadically document infrastructure, economic growth, per capita income, gross capital formation, etc. are also the determining factors. Other

studies by Asiedu (2002), Erdal and Taloglu (2002), Blonizen (2005), Rodriguez and Pallas (2008), and Chan et. al. (2014) find various determinants like; return on investment, currency value, tertiary education, labour cost, labour productivity, exchange rate, taxes, etc

3.6 Summary of the Earlier Studies

Going through the extant literature on the relationship between foreign investment and economic development at both macro-level and sector-level it is clearly identified that the issue is highly controversial and conflicting and different empirical investigations have reached different conclusions, however, these are highly country specific. Where one bench of the researcher notes that FDI creates a favorable impact on the economic development of host country through GDP or favouring other macroeconomic environment [Kishore (2012), Bhatt (2013), Lanka and Sharma (2013), Sahu and Pandey (2018) and others] another argues a completely opposite relation or no relation between these two macro variables [Carkovic and Levine (2002), Jayaraman and Seilan (2010), Ray (2012), Sahoo and Seith (2015) and others]. One branch of literature finds unidirectional causal relation between the variables [Duassa and kassim(2009), Ray (2012), Kizilkaya el al. and others] where some other find bi-directional causality [Pradhan (2010), Dash and Sharma (2011), Stamatiou and Dritsakis (2012) and others]. Again, a flock of literature shows only long-run relationship [Kalirajan and Mainkhel (2009), Sharmiladevi (2016) and other] where another flock of literature reveals both the long run and short run nexus [Pradhan (2010), Dash and Sharma (2011), Keho (2015) and many others]. In this context, the present study makes an attempt to supplement the literature and provide

some fresh insights on the relationship between foreign investment and economic development in the purview of Indian Economy.

3.7 Research Gap

From the rigorous review of extent literature we observe that a large number of studies have attempted to measure the impact of foreign investment, in the form of FDI and/or FII, on the growth process directly or indirectly of the various economies across the globe. Without doubt, these studies have high contribution in this area, but most of the congratulated studies in this context generally focus on developed economies, while sporadically very few studies are done in Indian context. The perusal survey of extant literature enriched our understanding of the dynamic relationship between foreign investment and economic development. This relation is confirmed in end number of the research works, but the outcomes of these academic works are heterogeneous and inconsistent. These outcomes are sensitive to the choice of countries, differences in the employed methodologies, use of variables and consideration of time periods, etc. There is complexity to generalizing the findings because each country is unique in terms of regulatory environment, socio-economic condition and political culture.

Again, a large number of studies try to investigate either the role of FDI on economic development or the impact of FII on economic wellbeing indirectly through capital market development, but a limited number of studies have considered both FDI and FII, simultaneously. There gross impact and segregated impact on economic growth might provide better understanding the significant component of foreign investment in the pace of development.

However, the empirical investigation with application of the appropriate methodology is a challenging issue for time series data. Many of the earlier reviewed researcher like Loomba (2012); Panigrahi and Panda (2012); Sultana and Pardhasarathi (2012); Jain, Meena and Mathur (2013); Kumar (2014); Naveen (2015); Rani and Kumar (2015); Vikram (2016) and many others have tried to establish the relationship between economic growth and various macroeconomic variables used in the model by applying the simple correlation and regression methodology before testing the unit root property of the data, which may lead to spurious results. Jayachandran and Seilan (2010); Pradhan (2010); Saiyed (2012), Tripathi, Seth and Vandari (2013); Further, Keho (2015) and Sahoo and Seith (2015) and many others have employed one or more of the stated model, namely Vector Auto Regression (VAR) model, cointegration technique, Error correction framework, Granger causality test, etc. But they do not provide a proper specification for choosing the given models. Further, most of these studies could not recommend on both short-run and long-run dynamics between macroeconomic specifications and development.

Moreover, many of the previous researchers consider very few year's data to establish the relationship between foreign investment inflows and economic development. Some of the researchers, namely Carkovic and Leving (2005); Choudhuri, Pyne and Chowdhury (2013); Menani (2013), Singh (2013); Kirthika and Nirmala (2014); Gupta and Garg (2015); Rani and Kumar (2015); Zafar, Hmedat and Ahmed (2017); and many others have conducted their studies to examine this relationship with a short time period.

Finally, by conducting perusal survey of recent past evidences varying with respect to countries, macroeconomic and sectoral perspective, specification of time and application of methodology we observe largely inconclusive findings from different economies perspectives including India. Major notable gap in the literature are that,

where much of the research efforts have been directed towards establishing the impact of FDI on overall economic growth of emerging and developed economies (Singer, 1950; Radan, 1961; Griffin, 1970; Weisskof, 1972; Li and Liu, 2005; Kaur et al., 2013, Kumar, 2014, Garg, 2015; Sahu and Pandey, 2018). But, most of the studies mention above measuring the impact of FDI on economic growth assume that FDI exerts equal impact on all the three basic sectors irrespective of their basic differential characteristic and capacity to absorb foreign investments. In this regards, a limited efforts have been made to understand the sector-specific differential impact of FDI inflow considering the sectoral heterogeneity (Borensztein et al., 1998; Wang, 2009). Even if very few studies attempt to estimate sectoral impact of FDI, they consider only one basic sector (Sen 2011, consider only service sector; Wang 2009 & Agya and Wunuji 2014, taken manufacturing sector only; and Choudhury 2016, investigate on agriculture sector only) or some researchers have taken a part of a sector for their research. The decomposition of total FDI into sectoral FDI, namely agricultural, manufacturing and service, would help us to identify the relative importance of FDI inflows into different sectors and their respective output growth.

The analysis of the present study on the effect of FDI on economic development adds a sectoral dimension through which the FDI-economic development relationship can be modeled within a changing sectoral specification. In other words the impact of foreign investment on economic development can be directly measured through GDP and can also be measured indirectly via different sectoral components of GDP namely agriculture, industry and service sector. The advantage of indirect effect is that the level of performance of most important components i.e. sector have lasting interest on economic development through output enhancement of the country will be known and accordingly appropriate measure should be taken to redirect the flow of foreign

investment towards desired growth trajectory. In this point, this study attempts to go into a step by step analysis with gross measurement to in-depth measurement by introducing a sector level analysis.

Under this backdrop, the present study under the title “Foreign Direct Investment and Economic Development in India: A Study in The Era of Liberalisation” is an endeavour to overcome the limitations of the previous set of literature relating to data, variables, and methodology to obtain more reliable and robust results and to come to a valid conclusion.