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DETERMINANTS OF FDI INFLOWS: REVIEW OF LITERATURE

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ABSTRACT

Foreign Direct Investment (FDI) plays a very significant role in the development of the nation. It is very much energetic in the case of underdeveloped and developing countries. A classic characteristic of these developing and underdeveloped economies is the fact that these economies do not have the desired level of savings and income in order to meet the required level of investment desired to sustain the growth of the economy. In such cases, foreign direct investment plays an important role of connecting the gap between the existing resources or funds and the required resources or funds. It plays an important role in the long-term development of a country not only as a source of capital but also for augmenting competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities. In India, FDI is considered as a developmental tool, which helps in achieving self-reliance in various sectors and in overall development of the economy. India after liberalizing and globalizing the economy to the outside world in 1991, there was a massive increase in the flow of foreign direct investment. This paper analyses determinates of FDI which leads to inflows into the country.

Key Words: FDI, GDP, Empirical Linkage, Infrastructure, Economic Stability.

Foreign direct investment (FDI) has played an important role in the process of globalization during the past two decades. The rapid expansion in FDI by multinational enterprises since the mid-eighties may be attributed to significant changes in technologies, greater liberalization of trade and investment regimes, and deregulation and privatization of markets in many countries including developing countries like India. Capital formation is an important determinant of economic growth. While domestic investments add to the capital stock in an economy, FDI plays a complementary role in overall capital formation and in filling the gap between domestic savings and investment. At the macro-level, FDI is a non-debt-creating source of additional external finances. At the micro-level, FDI is expected to boost output, technology, skill levels, employment and linkages with other sectors and regions of the host economy.

To accomplish the research activity in a scientific way, systematic review of literature is highly significant and essential because it furnishes relatively inclusive information relating to the research problem and provides clear understanding to define objectives of the research study in a good manner. A substantial amount of empirical studies have been conducted on the factors determining foreign direct investment (FDI). There exists a large amount of literature on the variables that determine the FDI inflows and outflows to and from any country. The existing literature includes a large number of surveys, case studies and a number of econometric studies relating to Asian countries, European countries and rest of world. Most of

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the studies employ multiple numbers of theories or hypotheses in order to investigate an empirical linkage between FDI and variety of economic, social and political variables.

In general, they include main factors which drive FDI into an economy have been market size (generally determined by a country's gross domestic product (GDP) and GDP per capita), market growth, economic development, agglomeration, urbanization, human capital, trade openness, infrastructure availability and quality, taxes and tariffs, labour costs and the degree of political and economic stability. The present paper focuses on the macro-economic variables that affect FDI inflows in India and the past studies provide an explorative view of these variables. They also provide empirical evidences on FDI spillovers and the role of domestic firms' own research and development for creating the spillover and absorptive capacity for them. This objective of this paper to study the determinants of FDI inflows in India.

REVIEW OF LITERATURE

International Context

As the brief review of FDI literature specifies that most of the empirical studies have focused on assessing the determinants that encourage multinational corporations (MNCs) to invest in a foreign country. Previous empirical studies on the determinants of FDI in less developed countries have emphasized the role of economic environment and liberalization policies in the host countries to attract foreign investment. It is important to recognize that the relative importance of FDI determinants depend on the motive, the type of investment (vertical FDI or export-oriented or horizontal FDI or market access-oriented) and the investor's strategy. Vertical FDI is explained by lower production costs (cheap labour, tax incentives and physical infrastructure). For horizontal FDI, the size of host country and its growth is the most important (**Helpman, 2006**). The amount of bureaucracy and corruption in the country as well as the quality of information, banking and legal institutions are important determinants of inward FDI. These findings are articulated in the work of **Quazi (2007)** in which the scholar found that countries can attract more FDI by improving their domestic investment climate through, among other policies, tax and tariff reform, reducing government ownership of business and liberalizing the banking and financial sectors.

Calvo, Leiderman and Reinhart (1996) study described the pull factors i.e. demand side that influence FDI flows and include interest rates, tax and tariff levels, market size and market potential, quality of institutions, wage rates, human capital, cost differentials, exchange rates, fiscal policies, trade policies, physical and cultural distance and state of infrastructure among others. **Liu, Song, Wei, and Romilly (1997)** observed that inward FDI in China have been affected mostly by relative real wage rates, relative exchange rates, and economic integration represented by real exports and imports. The study also showed that relative market size (measured by GDP) and cultural differences were two significant determinants of FDI in China. **Gastanaga, Nugent, and Pashamova (1998)** identified the relative importance of host-country reforms on foreign direct investment across a sample of Least Developed Countries (LDCs). The results showed significant effects of most variables including tax rates, tariff rates, degree of openness to international capital flows, GDP growth rate, contract enforcement, bureaucratic delay and corruption on foreign direct investment.

Billington (1999) analyzed those factors which determine the choice of location for FDI and found that market size, variables (income and growth), unemployment, level of host country

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imports and certain policy variables (corporate tax and interest rates) were significant determinants of location for FDI. At regional level, population density, unit labour costs and unemployment (again positive) were the most influential variables. **Wei (2000)** examined a bilateral panel of FDI data and provided the evidence that corruption in a host country negatively affects inward FDI. **Howard and Banik (2001)** explored determinants of private FDI and explain the variables in terms of 'domestic pull' and 'external push' factors. The market size and gross domestic investment are considered as domestic pull factors and exchange rate and degree of openness are considered as the push factors. The analysis has revealed that the ratio of exports to GDP was the only economic determinant of FDI. Foreign investors have been found attracted because of the strategic geographical position of some countries and the prospect of marketing their products to a global market. **Asiedu (2002)** study found that openness, return on investment and GDP as proxy variable for market size, are significant variables whereas infrastructure and political risk found insignificant variables for FDI inflow to host countries.

Campos and Kinoshita (2003) studied the determinants of FDI inflows and results revealed that for Commonwealth of Independent States (CIS) countries, natural resources, economic reforms, infrastructure, institutions and quality of bureaucracy whereas for non-CIS countries, agglomeration, economic reforms, institutions and quality of bureaucracy were the main determinants of FDI inflows. **Carstensen and Toubal (2004)** examined the determinants of FDI in Central and European countries and found that traditional determinants like market potential, low relative unit labour costs, skilled workforce and relative endowments had significant and plausible effect. In addition, transition-specific factors like the level and method of privatization and country risk played important roles in determining the flows of FDI. **Asiedu (2005)** study found that factors like natural resources and large markets promote the FDI inflows in an economy. Moreover, the other factors that have substantial impact on FDI inflows were inflation, infrastructure, skilled labour, trade openness, corruption, political stability and reliable legal system. **Sahoo (2006)** study employed panel cointegration test on the determinants of FDI in the South Asia and found that FDI and its determinants have long run equilibrium relationship. The major determinants of FDI in South Asia are market size, labour force growth, infrastructure index and trade openness. The results of FDI impact on growth show that FDI has a positive and significant impact on growth for four south Asian countries. Other significant factors that contribute to growth are exports, gross domestic capital formation and infrastructure.

Seyoum (2006) examined the effect of patent protection on FDI and results confirmed that FDI is strongly influenced by the level of patent protection, market size, and levels of corruption, unemployment rates and international trade orientation of host countries. The impact of patent protection on FDI is positive and significant in 1990 and 1995 which shows that the level of patent protection is a significant predictor of FDI. The regression coefficient for market size, corruption, unemployment rates, and international trade orientation were positive and significant in each of the two time periods (1990 and 1995). However, exchange rates, scientific and technological infrastructure and GDP growth rates were not significant for FDI inflows. **Quazi (2007)** study found that a domestic investment climate that is not conducive to economic freedom will likely to negate the stimulating effects of other positive determinants of FDI.

Bhatt (2008) analyzed the determinants of FDI in five countries (Indonesia, Malaysia, Philippines, Singapore and Thailand) of ASEAN and ASEAN region as a whole over the period 1976-2003. The results showed that there was a positive influence of the size of economy on FDI inflows in case of Indonesia and Singapore. The infrastructure was significant for Indonesia and Malaysia in attracting FDI. Exchange rate had influenced on FDI for Malaysia. The openness of the economy was significant in attracting FDI for Indonesia. The econometric models of pooled least square and fixed effect were used for ASEAN region. In case of pooled least square method, gross national income (GNI) was very significant with expected sign. It implied that market size attracted FDI in the ASEAN region. The depreciation of the currency attracted FDI inflows in ASEAN was significant with negative sign. Infrastructure was also significant determinant and openness variable was significant with negative sign. In case of fixed effect model, it was found that all variables were significant with expected sign except openness.

Dondeti *et al.* (2008) studied the impact of the Asian Financial Crisis on the relationship between FDI inflows and the trade balances of the eight Asian countries like China, India, Malaysia, Singapore, Indonesia, South Korea, Philippines, and Thailand, using the technique of panel data analysis. The study showed that one dollar of FDI had contributed about 1.181 dollars to the exports and 1.100 dollars to the imports of each of the eight countries in the years before and after the Asian Financial Crisis, when the differential fixed effects of the years are taken into consideration. An interesting conclusion was that the contribution of FDI to the growth of exports and imports was approximately the same, and thus had no significant net effect on the trade balances of these countries.

Jeon and Rhee (2008) analyzed the determinants of Korea's FDI from US between the periods 1980 -2001. The authors concluded that Korea's FDI inflows from the US have a significant association with real exchanges rates, relative wages costs and interest rate differentials using a pooled OLS estimation. **McDermott (2008)** investigated the effect of fluctuations in and volatility of the real exchange rate on foreign direct investment by using panel data of 55 countries from 1980 to 1997. The result found that both weak host currencies and greater volatility of exchange rate discourage FDI flows. **Vita and Kyaw (2008)** examined and results indicate that domestic productivity growth is the dominant determinant for FDI flows and domestic money growth is the major 'pull factor' for portfolio flows to developing countries. **Jajri (2009)** study examined the influence of FDI on the growth of Malaysia for the period 1970-2003. The study found that FDI had significant influence on the growth rate of the Malaysian economy. The results of the FDI determinants model, firstly, revealed the existence of a long-run relationship between FDI and the variables involved; and secondly, that GDP, exchange rate, public development expenditure, openness of the economy and labour cost had a direct impact on FDI.

Azam and Lukman (2010) in their study examined the effect of various economic factors on FDI inflows into Pakistan, India and Indonesia during the period (1971- 2005) by employing log linear regression model and the method of least squares. The results revealed that market size, external debt, domestic investment, trade openness and physical infrastructure are the important economic determinants of FDI. Further, the study found that the empirical results of the economic determinants of India matched with the empirical results of Pakistan excluding two determinants (like trade openness and government consumption) while the results of

Indonesia do not match with the results of the economic determinants of FDI for Pakistan and India.

Hailu (2010) analyzed demand side determinants of the inflow of FDI to African nations, with particular emphasis on stock market availability. The natural resource, labour quality, trade openness, market accession and infrastructure condition are found to have positive and significant effect. Availability of stock market has the expected positive but insignificant effect on FDI inflow. **Pradhan and Saha (2011)** examined the determinants of foreign direct investment and found that FDI was largely influenced by economic growth, exchange rate, inflation, labour population, trade balance, current account balance and long term debt outstanding. The impact of economic growth and exchange rate was bidirectional, while the other factors were unidirectional on FDI inflows.

INDIAN CONTEXT

Numerous studies provide valuable insights of various factors determining FDI inflows. There is an enormous theoretical and empirical literature dealing with the relationship between FDI and growth. Although, there are numerous factors determining the inflow of FDI in developing countries, recent empirical studies discussed in **De Mello (1997)** suggested that one of the most important factors determining the surge of FDI inflows into the developing countries have been the privatization and globalization of production. In addition, several factors including the degree of political stability, the nature of government policy, trade and investment regime, the openness of the host country and the size of the market were possible determinants of FDI flows. Inflow of FDI can be an important vehicle for technological change and accumulation of human capital. **Radhakrishanan and Pradhan (2000)** found that among the various determinants of FDI, the most crucial factors are absolute size of the domestic market, openness of the economy and the sound set of macroeconomic fundamentals. However, infrastructure does not impact FDI inflows to any significant extent.

Chopra (2002) examined the effect of policy reforms on the FDI in India during the study period from 1980 to 2000. The empirical result revealed that GDP was an important factor which motivates FDI in the country. **Banga (2003)** concluded that FDI is found to be attracted to large market size, low labour cost, high productivity of labour, and financial health of the economy and higher availability of electricity in the economy. **Kathuria and Das (2005)** analyzed the effect of increased FDI flows on the innovation strategies of the domestic manufacturing firms in the Indian context using post liberalization data. The results showed that in the post-liberalization era, the relationship between FDI and domestic R&D had undergone a change, with substitution coming out strongly in the later period when the effects of FDI were deemed to have been absorbed.

Bhati (2006) concluded that per capita GDP and export level of the country have significant impact while socio-economic factors like literacy rate, external debt, inflation rate and power consumption have insignificant impact on FDI. In case of developing countries like India, export-oriented FDI is perceived as an instrumental tool to strengthen country's export-competitiveness. The theoretical literature suggests that both FDI and trade can be substitute or complementary to each other depending upon the nature of investment, industry-mix and host country's features. Although, many empirical studies have argued that FDI inflows in the Indian economy have not been export-oriented, it is essential to note that none of these have studied the impact of FDI inflows on service exports. **Adamou and Subash (2008)** examined the impact of R&D and FDI on firm growth for a panel data of Indian manufacturing firms. The study argued that beside age and size, FDI and R&D are essential determinants of firm growth. The results indicated that an increase in current R&D induces higher growth across all industries; whereas, the effect of increase in FDI is mixed-higher growth in some industries and lower growth in some others. Finally, it is found that firm growth is negatively associated with its size and it is convex with respect to its age. **Feng (2009)** studied by employing time series data on FDI inflow, exports and outputs in service industry, co-integration, Vector Auto-Regression (VAR) and causality analyses are conducted on the basis of aggregated data that are available for the period from 1991 to 2007. The empirical results indicated that there exist long-run co-integrating relationships between FDI and service exports and outputs in India; whereas FDI inflow appears to have no significant impact on service exports and outputs performance, there is no evidence of long-run causal links between FDI inflow and service exports and outputs in service industry, and there is only a weak long-run causality running from output of services to FDI. **Jayachandran and Seilan (2010)** investigated the relationship between trade, FDI and economic growth of India over the period from 1970 to 2007. The results of Granger causality test showed that there is a casual relationship between the examined variables. The direction of causality relationship is from FDI to growth rate and there is no causality relationship from growth rates to FDI. **Dhingra and Sidhu (2011)** found that the financial strength of the state, development level of the state which is manifested in the high Human Development Index, high literacy rate, and high per capita income, freedom from corruption, market size and level of physical infrastructure are the core factors influencing the FDI inflows to Indian states.

CONCLUSION

To sum up, policy variables such as corporate tax rates, tax concessions, tariffs and other fiscal and financial investment incentives had a significant effect on FDI in a number of studies and should thus be considered as potentially key determinants of FDI. This study is an attempt to address the gap in literature by providing empirical support through exploration. This study also differs from the existing studies on FDI and enabling variables in at two ways: firstly, it uses more relevant empirical information on FDI and variables for India and secondly, it applies more relevant methodology in analysis and to investigate various determinants which support more FDI inflows in India.

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