Available online at www.ijrp.org

International Journal of Research Publications

Infrastructure development and its impact on FDI inflows: the case of Sri Lanka

MF. Mohamed Marsook[a*]
[a] Eastern University, Sri Lanka, Vantharumoolai, Chenkalady.

Abstract

The purpose of this study is to investigate the role of investment in both economic and social infrastructures on to inflow of Foreign Direct Investment (FDI) to Sri Lanka. Sri Lanka is one of the developing country and which has first nation adopted open economic policy in South Asia Region. Sri Lanka explores the ways to attract FDI to have many benefits including supplementary to domestic capital. In this study, test is based on secondary data of Investment in Economic and Social Infrastructures (EI and SI) and Foreign Direct Investment Inflows from 1990 to 2017. This study used four econometric models such as **Linear- Linear Model, Linear – Log model, Log –Log model and log- linear models** of dependent variable, FDI inflows and independent variables of Investment in Economic Infrastructure and Social Infrastructure in order to identify dynamic long run co integration between Inflow of Foreign Direct Investment and its independent variables. The test found out that there is significant relationship between investment in both economic and social infrastructures and Inflow of FDI to Sri Lanka. Policies are suggested to increase local or foreign investment in both Economic and Social Infrastructures in the country along with other favourable determinants in order to attract FDI in future.

Keywords; Economic, Social, Infrastructure, FDI, Sri Lanka, Linear, Log Model, EI, SI

1. Introduction

This study focuses on the analysis of the impact on infrastructure Development with the foreign direct investment (FDI). FDIs in a foreign countries are located in two categories as: “horizontal” which included the economies of transportation costs, tariffs for utilities and opportunities to access new markets and the “vertical” which mostly aims to minimize the production costs and maximize the profitability of the firm (Shatz and Venables 2000).

Foreign Direct investments (FDI) are not new to Sri Lanka. In British Colony, many British companies directly invested in plantation sectors in Sri Lanka. After the Independent, FDI inflows into Sri Lanka had been gradually increased but not significant up to 1977. Sri Lanka was a first South Asian country which liberalized its economy in 1978. Sri Lanka opened its economy for private sectors to invest in some sectors of the business such as Garments, Banking and Manufacturing. During the period, the government of Sri Lanka introduced many strategies like tax incentives, buildings free trade zone, and reduction in tariff for foreign investors who bringing advanced technology machineries in order to attract more foreign direct investments inflows (Central bank of Sri Lanka 2017) .
Improvements in infrastructure along with other favourable macroeconomic policies such as relaxation on labour law, encouraging private investment in some public enterprises, adopting moderate exchange rate, managing moderate interest rate and free trade agreements are the vital elements to attract Foreign Direct Investments (Pravakar Sahoo 2006) and those infrastructures should extend to local and multinational enterprises publicity to achieve maximum efficiency (Erenberg 1993).

Infrastructure development on the developed and developing countries are having different impacts and has a significant attractiveness for the inflows of FDI in the developing economies (Asiedu 2006) and there is long run relationship between real per capita GDP, Foreign Direct Investment and the level of the infrastructure and empirical result further confirmed that the unidirectional causality from level of infrastructure to FDI (Thilakaeera 2007). In case of Pakistan, a strong positive impact of infrastructure in attracting foreign direct investment in short and long run (Abdul Rehman et al. 2011).

In recent studies on infrastructure with communication, transportation, roadways, and ports, mainly on transport infrastructure along with some other variables of FDI and evidenced the positive significant contribution of infrastructure in captivating FDI (Khadaroo and Seetanah 2010).

The present study contributes to the existing literature by empirically examining the impacts of FDI mainly to infrastructure development in Sri Lanka. This work also serves the objective to investigate the relationship between investments in infrastructures (Economic and Social) and FDI inflows into Sri Lanka through the secondary data of last 28 years (from 1990 to 2017) by statistical technique like MINITAB and exploring an opportunity to develop an economic policy to attract FDI inflows into Sri Lanka by means of increasing investment opportunities in Infrastructures.

2. Materials and Methodologies

The secondary data of FDI inflows, Economic Infrastructures development and Social Infrastructures developments are being used in this study. The Data have been collected from Central Bank of Sri Lanka and Board of Investments from various annual reports and website of Board of Investments respectively for the period 1990 to 2017. Four econometric models such as Linear- Linear Model, Linear – Log model, Log –Log model and log- linear models of dependent variable of FDI and independent variables of Economic Infrastructure Development and Social Infrastructure Development were used to determine the contribution of independent variables on Foreign Direct Investment inflows to Sri Lanka and by using multiple independent variable Regression line analysis through a statistical package like MINITAB.

1.1. Hypothesis

The Hypothesis is the fast developing infrastructures in economics and social sector have positive impact on

Foreign Direct Investments Inflows to Sri Lanka.
H0: Investment in infrastructures has positively impacted on Inflows of FDI to Sri Lanka
H1: Investment in infrastructures has not positively impacted on Inflows of FDIs to Sri Lanka

3. Results and Discussions

According to the study, it reveals that how government investment in both economic and social infrastructure development contributes to attract foreign direct investments into Sri Lanka. Macro-economic variables such as Foreign Direct Investments inflow (FDI), Economic Infrastructure Development (EI) and Social Infrastructure Development (SI) during the period from 1990 to 2017 were used to analyse the correlation among the variables.
Investments in EI mean that investment of government of Sri Lanka made during the period from 1990 to 2017 in the sectors such as road development, road passenger transportation, rail transportation, civil aviation, port services, water supply and irrigation, energy sector and electricity sector.
Investments in SI mean that investment of government of Sri Lanka made during the period from 1990 to 2017 in the sector such as health, education, housing and urban development, poverty alleviation and safety nets and environment.
FDI mean that investments made by the foreign companies through Board of Investment of Sri Lanka taken as whole every year from 1990 to 2017.
Collected data has been analysed by Multiple Regression Model and the coefficient between independent variables (EI & SI) and dependent variable (FDI) was measured by "Minitab" package. Linear Regression Model, $\mathbf{FDI_t = \beta_0 + \beta_1 EI + \beta_2 SI + \varepsilon_t}$ is used to find out the correlation between the variables. In addition to this, other three models such as Linear & Log Model, Log & Log Model, Log and Linear Model were used for more accurate result.

Table 1. Correlation between the variables

MODELS	P	F	DW	R-SQ(ADJ)
$FDI_T = B_0 + B_1 EI_T + B_2 SI_T + E_T$	0.000	106.02	1.23708	89.7%
$FDI_T = B_0 + B_{1\,LOG}\, EI_T + B_{2\,LOG} SI_T + E_T$	0.000	40.22	0.791585	76.6%
$_{LOG}\, FDI_T = B_0 + B_{1\,LOG}\, EI_T + B_{2\,LOG} SI_T + E_T$	0.000	46.62	1.77186	79.2%
$_{LOG} FDI_T = B_0 + B_1 EI_T + B_2 SI_T + E_T$	0.000	44.65	1.72876	78.4%

Table 1 containing four models used to select suitable model to find correlation between FDI and (EI & SI). All models were tested with 1% significant ($P \leq 0.01$).

Having considered the determinant [R-Sq. (adj.)], the value of [R-Sq. (adj.)] in linear – linear model has comparatively high at the same time F value also is high. Therefore, as per the statistics tested here, the model of Linear – Linear is selected as the best one among other models. According to the statistics of the selected model, R^2 Adj.) is 89.7%. High value (89.7%) of R^2 (Adj.) means that dependent variables highly influence on independent variable. That is, Government Investment in both economic and social infrastructure development has a significant impact on Foreign Direct Investment inflows to Sri Lanka (Table 1).

Table 2.Result of Regression analyse by Linear –Linear Model (1990-2017)

VARIABLES	CO EFFICIENT OF REG.	T VALUE	PROBABILITY (P)
B_0 (INTERCEPT)	- 66.0	-1.38	0.183
EI	1.93	3.34	0.003
SI	8.30	3.54	0.002

R- SQ (ADJ) = 89.7%

The value of adjusted R^2 is equal to 89.7% in Linear – Linear Model and it means that independent variable such as Economic Infrastructure Development and Social Infrastructure Development impacts on dependent variable by 89.7%. Other factors influence on FDI only by 10.3%. Based on analysing, 1% increase in investing Economic Infrastructure Development increase in receiving Foreign Direct Investment inflow by 1.93% and it has a positive relationship between Economic Infrastructure Development and Foreign Direct Investment inflows to Sri Lanka. Like that, 1% increase in investing Social Infrastructure Development increase in FDI inflows by 8.30% and it has significant positive relationship between FDI inflows and Social Infrastructure Development.

As probability of both economic and social infrastructure development is less than 0.1 and they have positive impact on FDI inflows, it is considered that government investment in both economic and social infrastructure development has a positive impact on FDI inflows to Sri Lanka during the period from 1990 to 2017 based on the result of the statistical tests. Hence, alternative hypothesis, "Investment in infrastructures has not positively impacted on Inflows of FDIs to Sri Lanka" is rejected.

4. Suggestions

This research was made only in the variable of Infrastructure Development (Economical & Social) and tried to find the correlation between investment (Economical & Social) in Infrastructure Developments in Sri Lanka and its impact on Foreign Direct Investment inflows to Sri Lanka. But, it would be better to include all other determinants such as Market size, Openness, Friendly legislation, freedom in authority of Board of Investment of Sri Lanka, getting GSP Plus quotas of Europe Unions to Sri Lanka, Tax incentives, Wages of Labour Force, Free Trade Agreements, Permission to re-invest retained profit and Gross Domestic Product that impact on attracting FDI inflows to Sri Lanka for the accurate results in developing correct economic policy. Time to time, Policy Makers find new strategy to attract more and more FDIs to Sri Lanka. Presently, it is said that third party like politician's involvement in Board of Investment (BOI) should be avoid to bring confidence among the investors who are ready to invest in Sri Lanka. So, there is gap in the research to find out new ingredients that attract on FDIs in future.

5. Conclusion

Investments in fast growing quality infrastructures with other positive determinants will bring more and more FDI inflows to the country. Therefore, Government of Sri Lanka will have to focus on local or foreign investments in suitable infrastructures to bring more FDIs to Sri Lanka.

References

Abdul Rehman, Muhammad Ilyas, Hassan obeen Alam, and Mohamed Akram. The impact of Infrastructure on Foreign Direct Investment: The Case of Pakistan.

Asiedu, E. (2006). Foreign direct investment in Africa: the role of government policy, institutions and political instability. World Economy, 29(1), 63-77. Erenberg, S. J. (1993). The real effects of public investment on private investment. Applied Economics, 23, 831-837.
Khadaroo, A. J., & Seetanah, B. (2010). Transport infrastructure and foreign direct investment. Journal of International Development, 22, 103–123.
Pravakar Sahoo (2006). Foreign Direct Investment in South Asia : Policy, Trends, impact and determinants.

Shatz, H., & Venables, A.J. (2000). The Geography of International Investment. "*World Bank Policy Research Working Paper".* pp. 2338.

Thilakaweera, B.H.P.K. (2006). Economic Impact of Foreign Direct Investment in Sri Lanka.