



The Role of FDI and HCD in Indian Economic Growth

Mahdi Naqdi Bahar

Department of Commerce, University of Kerala, Thiruvananthapuram, Kerala, India.

ARTICLE INFO

Article history:

Received: 19 July 2015;

Received in revised form:

23 August 2015;

Accepted: 2 September 2015;

Keywords

Human Capital Development (HCD),
Foreign Direct Investment (FDI),
Indian Economy Growth.

ABSTRACT

Human Capital Development (HCD) and Foreign Direct Investment (FDI) are the key drivers of economic growth in India. Despite HCD and FDI separately affect economic growth, but they also strengthen each other through complementary effects. This study tries to find out whether HCD has significant effect on FDI as an important factor of Indian economic growth. In this study researcher used EvIEWS 8, IBM SPSS 21 and Microsoft Excel for analyzing data. Also the Linear Regression by Ordinary Least Squared Method for best estimation model and Cronbach's Alpha for Testing Questionnaire Reliability are used. The results show that, Human capital development has significant effect on foreign direct investment in Indian economic growth.

© 2015 Elixir All rights reserved.

Introduction

Human Capital Development (HCD) and Foreign Direct Investment (FDI) are the key drivers of economic growth not only in India but in any other developing countries. Despite HCD and FDI separately affect economic growth, but they also strengthen each other through complementary effects. In general, enhanced HCD increases incoming FDI by providing the investment environment attractive for foreign investors due to direct effect of improved skill level of the employees, as well as via indirect effects such as improved socio-political strength and health. FDI contributes to HCD since multinational corporations (MNCs) themselves can be active providers of education and training, bringing new skills, information and technology to host developing countries. Ultimately, this complementary effect leads to a virtuous circle of HCD and FDI where host countries experience continuous inflow of FDI over time by increasingly attracting higher value-added MNCs, while at the same time upgrading the skill contents of preexisting MNCs and domestic enterprises. As most developing countries experience a shortage of capital, this is reflected in their respective savings-investment and import-export gaps, which implies that developing countries have insufficient savings and/or foreign exchange to finance their investment needs. To bridge this gap they need an inflow of foreign capital. FDI is an important source of capital for growth in developing countries. The impact of FDI is dependent on several factors, such as: the form that it takes; the type of FDI; the level of Human Capital; the host sector; the scale; the duration; its location; etc. In India, the attitude has moved radically towards a more welcoming policy stance. This policy is mainly due to economic improving plans which India is following. While FDI is surging, other forms of capital flows to India are diminishing. Aid has continuously declined as a share of capital inflows and Commercial loans, a major source of capital flows has virtually disappeared. In a globalised world, where factors of production are increasingly mobile, the process of domestic accumulation of HC might be affected in several ways. In fact, while in principle the availability of foreign capital in the form of inward foreign direct investments (FDI) and an elastic supply of skilled (educated) workers may individually enhance growth prospects,

they can also reinforce each other through possible "complementary effects". FDI is considered a vehicle through which new ideas, advanced techniques, technology and skills are transferred across borders and provide substantial spillover effects. Country-wide studies examining the effect of FDI inflows in the growth process of countries usually provide positive results, especially in specific environments. The accumulation of human capital and accessibility of physical and financial capitals are the key determinants of economic growth, and the lack of these is potential reasons for delay of many less developed countries (LDC) in achieving development. Development in human capital in all its aspects is essential for absorbing and adapting foreign direct investment to generate sustainable long run growth. Host economies with high level of human capital may be able to attract a large amount of intensive FDI that contributes considerably to the development of labour for India, a FDI inflow is needed to accelerate growth rates. That's why India has taken steps to liberalize its environment for FDI, also there are policies actively designed to attract investment such as tax fiscal free, easing of import and customs controls, infrastructure investment and labour law reform. Before being able to benefit from a foreign presence in its markets, India needs to reach to a certain level of development in human capital (Education, health, welfare, technology and infrastructure) Also poor financial intermediation hurts domestic companies much harder than it does to multinational enterprises (MNEs). 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,

Tele:

E-mail addresses: mahdinaqdiabahar@gmail.com

© 2015 Elixir All rights reserved

employment and linkages with other sectors and regions of the host economy. In India FDI inflow made its entry during the year 1991-92 with the aim to bring together the intended investment and the actual savings of the country. To conclude, the main objective of this study is to empirically examine the effect of Human Capital Development (HCD) on Foreign Direct Investment (FDI), in economic growth in India.

Literature Review

Richman and Melvin (1972) in their study on firm performance in India, found strong correlation "between the proportion of Western- trained (this includes formal education) local nationals employed by firms both foreign and indigenous, and the firms relative economic success. Those with the highest proportion of its trained managers and specialists have generally been the most successful in their sectors". They also found that, multinational firms (especially American) devote considerably more resources to training than do indigenous firms. Romer (1990) the proponent of endogenous growth literature posit explicitly that, human capital serves as a major driving force of technology progress and as an engine of economic growth. Balasubramanyam et al. (1996) examined a number of developing countries for 1970–1985 and concluded that, FDI is enhancing for those that follow an export oriented trade policy regime. Balasubramanyam et al. (1996) analyses how FDI affects economic growth in developing economics. He uses cross-section data and OLS regressions and finds that FDI has a positive effect on economic growth in host countries using an export promoting strategy but not in countries using an import substitution strategy. Analyzing a sample of 1265 World Bank projects, Thomas and Wang (1997) found the rate of return to be three percentage points higher in countries with both a more educated labour force and a more open economy than in countries that had only one or the other.

Borenstein et al. (1998) in their study of 69 developing economies for 1970–1989 concluded that the effect of FDI is dependent on the human capital stock. Also Borenstein et al. (1998) examine the role of FDI in the process of technology diffusion and economic growth, they also finds out that FDI has a positive effect on economic growth, but that the magnitude of the effect depends on the amount of human capital available in the host country. Borenstein et al. (1998) in other study found that, the magnitude depends on host country condition (human capital), the effects of human capital on growth and productivity, export promotion, technology transfers and domestic economy have been significant through FDI.

Barro and Lee (2000) pointed out that from the mid 1980s; education increasingly turns into an important determinant in the development process and for foreign investors. Noorbakhsh et al, (2001) evidence that; the impact of human capital on FDI has been statistically significant and positive. Kapstain (2001) in a study on the countries which succeeded in attracting substantial FDI through human capital development found out that, the economic planners of these countries recognized that skill development of their workforce is necessary for a sustained growth. For example; Singapore used education and language policies as a vehicle to produce trained and globally competitive workforce. At the outset, a large fraction of unskilled workforce and a minuscule FDI were the core resources for their industrial development. Yet all of these countries readily realizes that, the importance of foreign firm role in the economy heavy investments in human resources development and a steady supply of qualified and educated workforce, Initially, they could attract only low- value-added TNCs and with the accumulations

of human capital stock these countries attracted high value-added TNCs.

UNCTAD (2002) finds a high correlation between human capital development and FDI inflows. Balasubramanyam.V.N and Vidya Mahambre (2003) concluded that FDI is a very good means for the transfer of technology and knowhow to the developing countries. Birendra Kumar and Surya Dev (2003) with the data available in the Indian context showed that the increasing trend in the absolute wage of the worker does not deter the increasing flow of FDI. Alfaro et al. (2003) found growth enhancing effects of FDI in economies with sufficiently developed financial markets. In their research, there is an array of works that stress the positive role of FDI conditioned on adequate local factors especially human capital.

Bengoa and Sanchez-Robles (2003) investigate the relationship between FDI, economic freedom and economic growth using panel data for Latin America. He concludes that FDI has a significant positive effect on host country economic growth after comparing fixed and random effects estimations. Sebastin Morris (2004) has discussed the determinants of FDI over the regions of a large economy like India. He argues that, for all investments it is the regions of metropolitan cities that attract the bulk of FDI. Peng Hu (2006) analyses various determinants that influence FDI inflows in India which include economic growth, domestic demand, currency stability, government policy and labour force availability against other countries that are attracting FDI inflows. Analyzing the new findings, it is observed that India has some competitive advantages in attracting FDI inflows, like a large pool of high quality labour force which is an absolute advantage of India against other developing countries like China and Mexico.

Barro (1998) recognizes human capital created through investment in education and the development of skills as one of the most significant determinant of economic growth. In summary, the literature on human capital and FDI indicates that human capital is an important determinant of FDI, especially among efficiency-seeking FDI that requires a skilled workforce as one of its key inputs. Although higher human capital does not appear to effect inflows of resources/market seeking FDI directly, it can indirectly affect FDI by improving civil liberties, health and crime rates. The evidence of various studies undertaken in countries which have developed human capital reveal that human capital attracted FDI and subsequently FDI impacted positively on growth and productivity.

Research Methodology

Sample of Study

The data required for the study has been collected from 47 samples selected from research scholars in commerce, management and economic subject who are already doing research in University of Kerala, Thiruvananthapuram.

Questionnaire

The "Questionnaire" method is selected for this study to test the hypothesis. Some respondents were contacted by telephone and for some others the questionnaire was distributed by mail, and most of respondents were interviewed.

Cronbach's Alpha for Questionnaire Test of Reliability

To determine the reliability of the questionnaire, the coefficient of "Cronbach's Alpha" was used. After collecting questionnaires coefficient of "Cronbach's Alpha" was calculated by "IBM SPSS Statistic 21" that the results presented separately. As the Table No.1 indicates, the coefficient of Cronbach's Alpha in questionnaire is more than 0.70 which it can be concluded that, the reliability of questionnaire is acceptable.

Table No.1
Case Processing Summary

		N	%
Cases	Valid	47	100.0
	Excluded ^a	0	.0
	Total	47	100.0

a. Listwise deletion based on all variables in the procedure.

Table No.2
Reliability Statistics

Cronbach's Alpha	N of Items
.822	21

Table No.3

Regression Output Summary Dependent Variable: FDI				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	20.89086	4.504291	4.637991	0.0000
HCD	0.442885	0.102784	4.308896	0.0001
R-Squared	0.552081	Mean Dependent Variable		40.25532
Adjusted R-Squared	0.566349	S.D. Dependent Variable		2.444764
S.E. Of Regression	2.079704			
Sum Squared Resid	194.6326	Schwarz Criterion		4.422679
F-Statistic	18.56658	Durbin-Watson Stat		2.130024
Prob(F-Statistic)	0.000088			

Hypothesis of the Study

Human Capital Development (HCD) has significant effect on foreign direct investment (FDI) in Indian economic growth

H0: Human Capital Development (HCD) has no significant effect on Foreign Direct Investment (FDI) in Indian economic growth

H1: Human capital development has significant effect on foreign direct investment in Indian economic growth

Estimation Model of Study

Researcher used Ordinary Least Squared for best estimation through following formula:

$$\sum e_i^2 = 0$$

So, the model estimation is shown below:

Estimated Model (Formula)

$$Y = \alpha + \beta (X_i) + e_i$$

Whereas:

Y = Dependent Variable Coefficient, Foreign Direct Investment (FDI)

A = Constant in Formula

β = Independent Variable Coefficient, Human Capital Development (HCD)

Estimation Equation:

$$FDI = C (1) + C (2)*HCD$$

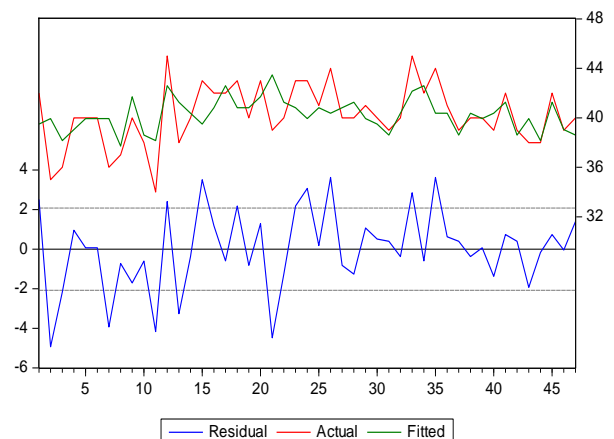
Substituted Coefficients:

$$FDI = 20.8908637356 + 0.442885354953 * HCD$$

Analyzing Method

Regression is used for analyzing the data, Table No.3 shows the result.

Fitted-Actual Graph



Correlation Test

The result of Correlation between Foreign Direct Investment (FDI) and Human Capital Development (HCD) is shown as following:

	FDI	HCD
FDI	1	.054
HCD	.054	1

Results of Analysis

The output of estimated regression shows $|t| \geq 2$ so the coefficient of regressions are meaning full and prob is less than 0.05. Standard Error of Regression is 2.079 and R^2 is 0.552081 so independent variable can define dependent variable with 0.552081. And for information criteria used Schwarz criterion with 4.422679. prob. (F statistics) is less than 0.5 (0.000088) so the estimated model is meaningful.

Conclusion

Due to result, the hypothesis is accepted. It means that all of 21 questions (11 question regarding to HCD and 10 questions regarding to FDI) which were adopted and designed through literature review ,can be generalized and extended in Indian economy from research scholars point of view. Finally result indicates that, Human Capital Development (HCD) has

significant effect on foreign direct investment (FDI) in Indian economic growth.

References

- [1]. Alfaro, L., Areendam, Ch., Kelemli-Ozcan, S., Selim, S., 2003. FDI and economic growth: The role of financial markets. *Journal of International Economics* 61 (1), 512–533.
- [2]. Balasubramanyam, V.N., M. Salisu and D. Sapsford, 1996. Foreign direct investment and growth in ep and is countries. *The Economic Journal*, 106(1): 92-105.
- [3]. Bengoa, M., Sanchez-Robles, B., 2003. Foreign direct investment, economic freedom and growth: New evidence from Latin America. *European Journal of Political Economy* 19 (3), 529–545.
- [4]. Barro, R.J. and J. Lee, 2000. International data on educational attainment: Updates and implications. Centre for International Development Working Paper 42.
- [5]. Birendra Kumar Nayak and Surya Dev. “Low Bargaining Power of Labour Attracts Foreign Direct Investment in India”, *Social Science Research Network*, No.431060, 2003.
- [6]. Borenztein, E., De Gregorio, J., Lee, J.-W., 1998. How does foreign direct investment affect economic growth? *Journal of International Economics* 45, 115– 135.
- [7]. Constantina Kottaridi and Thanasis Stengos (2010) Foreign direct investment, human capital and non-linearities in economic growth, *Journal of Macroeconomics* 32 (2010) 858–871, journal homepage: www.elsevier.com/locate/jmacro
- [8]. Kapstain, E.B., 2001. Vicious circle? Human capital formation, economic development and the multinational enterprise. A Paper Presented to the OECD Conference on Foreign Direct Investment, Human Capital, and Education in Developing countries. December.
- [9]. Noorbakhsh, F., A. Paloni and A. Youssef, 2001. Human capital and fdi inflows to developing countries: New empirical evidence. *World Development*, 29: 1593-1610.
- [10]. Peng Hu 2006, “India’s suitability for Foreign Direct Investment”. Working Paper No.553, 2006, International Business with special reference to India, University of Arizona.
- [11]. Richman, B. and C. Melvin, 1972. *International management and economic development*. New York: McGraw-Hill.
- [12]. Romer, P.M., 1990, Human capital and growth: Theory and evidence. *Carnegie-Rochester Conference Series on Public Policy* 32, 251–268.
- [13]. Sebastin Morris 2004, “A Study of the Regional Determinants of Foreign Direct Investment in India, and the case of Gujarat,” Working Paper No. 2004/03/07, 2004, Indian Institute of Management
- [14]. Thomas, V. and Wang, Y. (1997), ‘Growth and Environment: Allies or Foes?’, *Finance and Development*, 34: 22-24
- [15]. UNCTAD. 2002. (United nation conference on trade and development). *Investment Policy Review of Ghana*. DOI <http://www.unctad.org>.