
Changing Pattern of Foreign Direct Investment (FDI) in Asian Region Issues, Motives and Strategies for Economic Development

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INTRODUCTION

Foreign direct investment (FDI) is playing a crucial role in the growth and development of not only the advanced economies but also in the developing and emerging economies alike. Besides bringing in capital, it introduces new and modern technology, provides market opportunities and linkages to export, and help enhance the standard of living. Countries, in the modern era, can be observed competing with each other to come up with lucrative incentive plans in order to attract more and more foreign direct investments. Farrell, Jaana and Heiner (2004) view that government in emerging markets are understandably eager to have their share of this foreign capital, along with the technology and management skills that accompany it.

The world economy has witnessed a spectacular trend in terms of global economic integration during the past decade. The ever-growing internationalisation in the face of globalisation reflected the rising share of international trade and foreign direct investment flows. The average annual growth rate of world merchandise trade has been twice as much as that of world output during the second half of the 1980s and over three times during the first half of the 1990s. Total annual worldwide FDI flows amounted to about \$430 billion on an average during 1994-98. During the same period, the United States, on an average, invested about \$97 billion per year overseas, far more than any other country. The developed countries recorded about 90 percent of the total worldwide FDI outflows during the same five year period.

Asian region has always been considered as a prudent centre for investment particularly by United Kingdom, Japan and the United States of America. Particularly during last couple of years, FDI has become an imminent factor for the Asian countries, may be in the face of globalisation and financial crisis of 1997. Globalization and integration of economic activities across the world forced the region's governments to attract FDI which witnessed a surprising growth and consequently recorded economic growth. Being most of the countries in developing stage, the developed countries moved their capital to this region in order to earn a more competitive rate of returns.

Domestic firms are competing to become multinational when they embrace the foreign direct investments (FDI). Many companies like Sony, IBM, Coca-Cola, Toyota, McDonald, Daimler-Benz, Royal Dutch, Shell, and GM have established their presence as top class multinational corporate world wide. These MNCs' FDI plan involves the establishment of new production facilities in foreign countries. It may also involve acquisition of existing foreign businesses as done by Ford acquiring effective control of Mazda. In the next phase of FDI, these MNCs deploy their formidable resources, tangible and intangible, irrespective of national boundaries to pursue profits and boost up their competitive position.

This paper extends its discussion in the following sections. The first section deals with the introduction. The second section presents a pedagogical note on the role of FDI in the growth of the economies of Asian region covering issues, motives and strategies. Section – III demonstrates the changing pattern of FDI in the Asian region. Fourth section applies the statistical methodology in order to test relationship between the FDI and the GDP, and the variance level of FDI contribution to GDP among the sample countries. Fifth section presents the conclusion.

FDI AND ECONOMIC GROWTH: ISSUES, MOTIVES AND STRATEGIES

The international finance is evolving rapidly during last few decades. Constant developments in the form of some new dynamic financial instruments are invariably changing the shape of the global financial markets. Competitive advantage principle has urged the domestic corporates to explore their activities across boundaries. All these are evidently marking a phenomenal growth almost in all spheres of finance. Domestic companies are now becoming more and more competitive to turn to multinational corporations (MNCs). According to a recent survey of UNCTAD, there are around 60,000 MNCs working throughout the globe with over 500,000 affiliates. The global turnover is recording enormously.

No doubt, FDI by MNCs now plays a vital role in linking national economies and defining the nature of the emerging global economy. According to a recent UN survey, the FDI stock grew about twice as fast as world wide exports of goods and services, which themselves grew faster than the world GDP by about 50 %. The overall cross-border production activities of MNCs are best captured by FDI stocks. The total world wide FDI stock which was about US \$ 514 billion in 1980 rose to US \$ 4,117 billion in 1998. As of 1998, the United States, the U.K., Germany, Japan, the Netherlands, France, Switzerland and Canada held the most outward FDI stocks. For FDI inward stock, on the other hand, the United States, the U.K., China, Germany, France and the Netherlands are the most important hosts. As can commonly be predicted, much of the FDI stocks are concentrated in three major economic centres viz; the United States, the European Union and Japan.

Asian economies are embarking upon new plans and policies to attract more and more FDI. It has well been proven that FDI brings in new, innovative and automation based technologies that help rejuvenate the host country's existing manufacturing base. Not only this, human labour transfer in the form of highly skilled, experienced and knowledge-versed is a tremendous move to drive the country's economic growth to ever-newer heights. Hong and Batra (1995) have analysed that many developing countries see FDI as a key element of their development strategies and seek to attract it through a variety of financial incentives. Not only this, FDI discerns as a source of important direct benefits for the host country as well – financing new firms or business expansions, creating jobs and generating tax revenues. It is believed that FDI produces important indirect benefits for domestic firms – spillovers – from the accelerated transfer of superior technology, turnover of skilled labour, and increased export opportunities through links with multinational corporations and foreign buyers.

Some studies suggest that FDI might be able to enhance economic growth of host countries through spillover efficiency and technology transfer. The spillover efficiency occurs when advanced technologies and managerial skills embodied in FDI are transmitted to domestic plants simply because of the presence of multinational firms. The technology and productivity of local firms may improve as FDI creates backward and forward linkages and foreign firms provide technical assistance to their local suppliers and customers.

Khawar (2005) examines the impact of FDI over two decades at the aggregate level and find that it has a significant and positive relationship with real income per capita, irrespective of any human capital requirements. The relationship between growth and FDI has been attempted by many studies covering different time and also across different countries. Fan and Dickie (2000) have also reviewed FDI as a major component of foreign capital, and examined its contribution to growth and stability in the ASEAN – 5 economies. Liu, Burrige and Sinclair (2002) have investigated that there are long run relationships between growth, exports, imports and FDI in China. Similarly Ram and Zhang (2002) present that despite the enormous increase in the FDI flows, the nexus between FDI and the host country's economic growth seems generally positive for the 1990s. Ironically, FDI is expected to boost host economic growth; however, it depends on country-specific characteristics. Particularly FDI tends to be more likely to promote economic growth when host countries adopt liberalized trade regimes, improve education and thereby human capital conditions. Another study by Sahoo and Mathiyazhagan (2003) shows that FDI promotes the growth of the economy via export

promotion and examine the Indian scenario by establishing that there is a long run relationship between GDP and FDI.

Recent trends in FDI in the 1980s and 1990s, and policy developments that have accompanied and contributed to these trends, are discussed. The impact of FDI on the three pillars of sustainable development – economic growth, environmental protection and social development is of utmost importance. But, in the later stage of the last decade when most of the Asian countries were facing financial crisis, an environment of increased international capital flows cast doubts on the ability of such flows to stimulate long-run growth in developing economies. Berthelemy and Demurger (2000) attempt to develop an endogenous growth model in which foreign direct investment interacts with long-run growth rate. Mishra, Mody, and Murshid (2001) in their research work propounded that private capital flows can reinforce the growth process.

In tandem with some of the very important and well-established theoretical beliefs, multinational corporations are finding good cause to move overseas, set-up plants and earn economies of scale. Firms, particularly the giants, enjoy the economies of scale in the spheres of production, marketing, finance, research and development (R&D), transportation and purchasing. Foreign factors of production have been another motive for MNCs to move overseas. The labour costs in developed nations are far high than that in developing countries. Firms in the most industrialised economies have an advantage in terms of access to continuing new technology in the sphere of science and engineering. These firms are increasingly setting up overseas plants to learn about the foreign technology. This technology is then used to improve their own production processes at all subsidiary plants around the world. Like use of foreign technology and managerial and marketing expertise are also the points of attractions towards FDI. Location factors also play an important role in determining the level of FDI. Erdal and Tatoglu (2002) state that there are broadly two location factors affecting FDI inflow into host countries: Ricardian type endowments which comprise of natural resources and secondly, environmental variables such as political, economic, legal and infrastructure factors of host countries. Chakraborty and Basu (2002) have also discussed the similar 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 that affect the possible inflow of FDI. In most research studies, multinational firms have been observed to export to a market before establishing a production facility there. This provides the managers a critical exposure to the global environment. The marketing skills are made conducive to the international standards as well. Thus, the MNCs can partially overcome the supposed superior local knowledge of host country firms.

FDI TREND IN ASIAN REGION

FDI has long been an important source of external finance in the entire Asian region. After the globalization, liberalization and integration of world economy in 1991, developing countries have been substantial recipients of FDI. The developing nations' government encouragement for FDI in the 1980s met with a favourable response boosting a remarkable growth in FDI (see Table 1 and Figures 1-6).

Table 1 Foreign Direct Investments (In Million US\$)

Countries	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
China	4366.0	11156.0	27515.0	33787.0	35849.2	40180.0	44237.0	43751.0	38753.0	38399.3	44241.0	49308.0
Malaysia	3998.4	5183.4	5005.6	4341.8	4178.2	5078.4	5136.5	2163.4	3895.3	3787.6	553.9	3203.4
Philippines	544.0	228.0	1238.0	1591.0	1478.0	1517.0	1222.0	2287.0	1725.0	1345.0	982.0	1111.0
Thailand	2014.0	2113.0	1804.1	1366.4	2068.0	2335.9	3894.7	7314.8	6102.7	3366.0	3820.1	900.2
Vietnam	229.0	474.0	926.3	1944.5	1780.4	2395.0	2220.0	1671.0	1412.0	1298.0	1300.0	1400.0
India	73.5	276.5	550.4	973.3	2143.6	2426.1	3577.3	2634.7	2168.6	2657.0	4334.0	3030.0

Malaysia has procured a steady and substantial amount of FDI right from the beginning of 1991 recording a figure of little less than US\$ 4,000 million. As Malaysia is strategically located in the heart of Southeast Asia, it is considered as an ideal base for multinational manufacturing companies who see the need to establish a manufacturing presence in the growing markets of the Asia Pacific region.

Figure 1

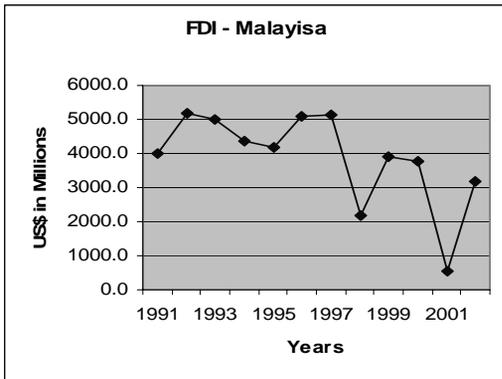
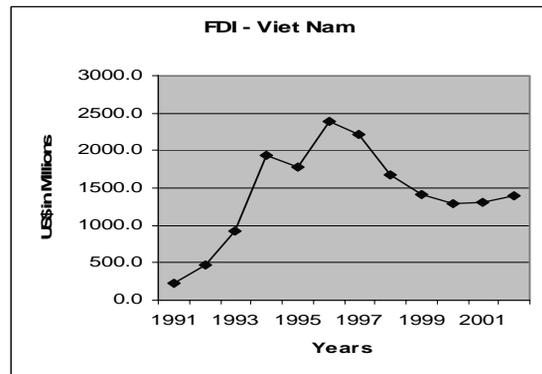


Figure 2



Malaysia's share of FDI to the entire Southeast Asian region has been quite impressive maintaining an average of 28% after 1995. Most of the FDI is in the manufacturing sector especially the electrical and electronic products and food processing industries. United Kingdom, Hong Kong, Japan, Singapore and the United States of America have been the main sources of FDI into Malaysia. In the manufacturing sector, Japan and Taiwan contributed substantially. Japanese direct investment in Indonesia and Malaysia marked threefold increase in 2000, signaling a recovery of Japanese corporate interest in the region (Kanabayashi, 2002). But Malaysia could not sustain this consistent growth for long and the financial crisis broke out in 1997-98 resulting into a drop of around US\$ 3,000 millions worth FDI. During uncertain times, there are some factors like delayability and reversibility which have caused changes in FDI structure in Malaysia (Ramasamy 2003). Vietnam has attracted a significant amount of FDI from just US\$ 229 million in 1991 to US\$ 2,395 millions in 1996 recording a tremendous growth of ten times.

Figure 3

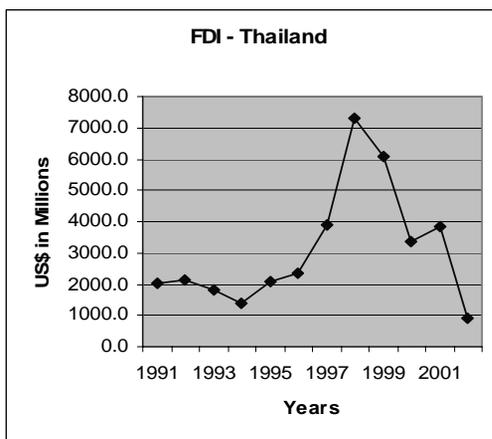


Figure 4

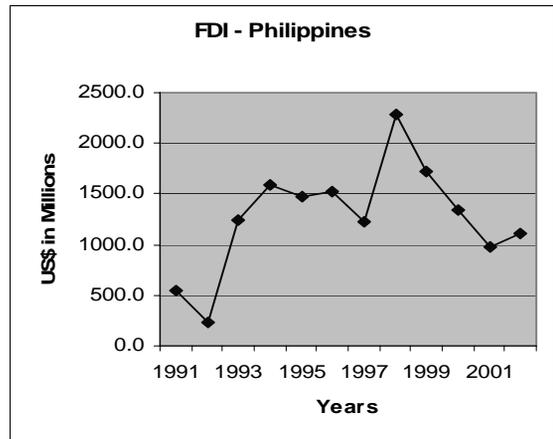


Figure 5

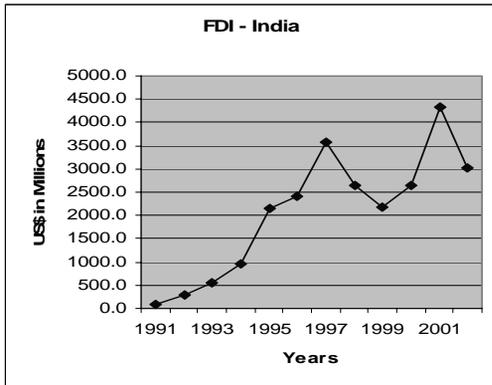


Figure 6

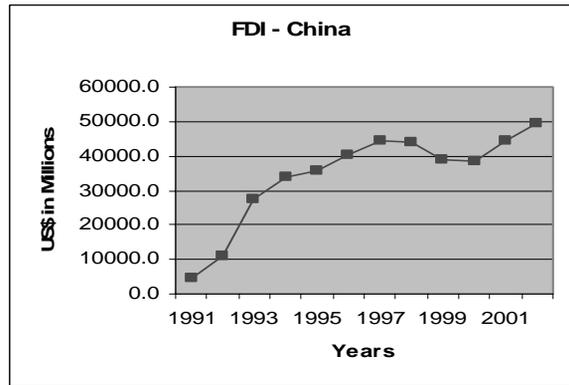
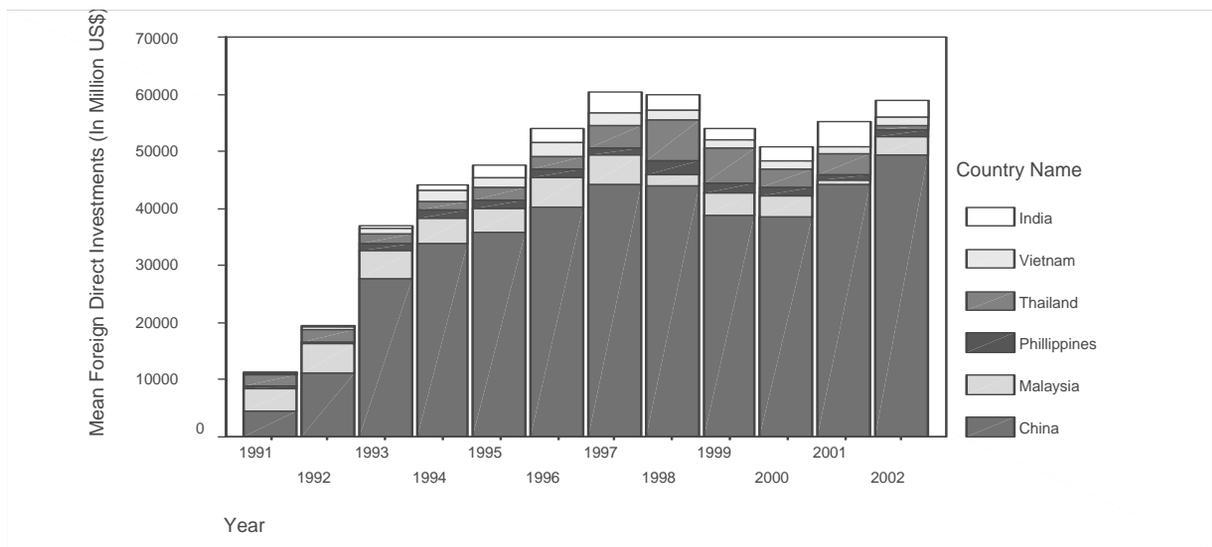


Figure 7 Mean of Foreign Direct Investments



Surprisingly, Thailand received FDI worth US\$ 7,315 million in 1998 as compared to US\$ 3,895 million in 1997 making it just little less than double in just one year despite the impact of financial crisis in the Southeast Asian region. Philippines growth has rather been slow and steady during a period of twelve years making this amount just twice of what it has received in the year 1991.

Two Asian tigers i.e. China and India have consistently received a good amount of FDI during this period. China made it an eleven-fold game while India almost forty times from their respective figures in 1991. In the initial phase of globalization process, the entire Asian region recorded an upward trend but the financial crisis in 1997 caused vulnerability to the inflow and most of the Asian countries were observed to be contaminated. Almost all the figures above are clearly depicting a downfall at 1997-98 periods due to the occurrence of financial crisis. However, Figures 5 and 6 are showing a linear trend representing that China and India have largely been away from this financial contagion. Figure 7 below shows the FDI inflow indicating a robust area of red colour which represents to China and the difference could easily be ascertained.

METHODOLOGY AND DATASET

The study has covered a sample of six developing countries of Asia namely China, Malaysia, Philippines, Thailand, Vietnam and India. These six countries receive a substantial proportion of FDI of the region's total amount of FDI. The data are collected from the year 1991 to 2002 which is presumably a period of globalization and liberalization process in the region. The official website of Asian Development Bank has been the main source of data (<http://www.adb.org>).

As mentioned earlier that this study mainly attempts to evaluate the changing pattern of FDI in the Asian region and to ascertain the relationship between the FDI and the GDP. In this part of the study, various statistical measures have been used to test the variance level of FDI among the sample countries over the stated period. Analysis of variance (ANOVA) and the Post Hoc Tests are applied to see further where exactly variance lies. In the first place, a country-wise and cross-section wise time series data are used to observe the relationship between the GDP and the FDI.

Table 2 summarizes the figures stating FDI as a proportion to GDP and the growth rate of GDP. The average FDI is the highest in case of Vietnam recording 6.3767 followed by Malaysia and China with 5.1008 and 4.0883 respectively. But the GDP growth rate is the highest at 12.4542 in case of China followed by Vietnam and Malaysia. Two out of six sample countries i.e. China and Thailand show a negative correlation coefficient between FDI and GDP.

Table 2 Foreign Direct Investment and GDP Growth (Country wise, 1991-2002)

Countries	Average FDI	Standard Deviation	Average GDP	Standard Deviation	Correlation Coefficient
China	4.0883	1.35484	12.4542	7.25232	-0.3
Malaysia	5.1008	2.28036	6.3667	5.21455	0.7
Philippines	1.8350	0.77005	3.0417	2.24842	0
Thailand	2.4292	1.63067	4.4417	5.68770	-0.8
Vietnam	6.3767	2.75099	7.4833	1.51648	0.7
India	0.4875	0.27945	5.3	1.86548	0.3

In the same way if we look at Table.3 which presents cross section data over a period of 1991-2002, the average FDI seems to be stable at 3.386 until 1999 but then started sliding.

Table 3 Foreign Direct Investment and GDP Growth (Cross Section Data)

Years	Average FDI	Standard Deviation	Average GDP	Standard Deviation	Correlation Coefficient
1991	2.5850	2.89952	6.7750	6.28250	0.269164
1992	3.0483	3.25787	9.0833	7.64053	0.185955
1993	3.8317	3.01414	10.75	9.757	0.262719
1994	4.6183	4.34257	8.65	2.66964	0.398655
1995	3.7117	3.01851	7.9333	2.75148	0.670569
1996	3.8983	3.39998	8.0167	1.88406	0.721949
1997	3.8767	2.77877	5.5	3.85642	0.549396
1998	3.9767	2.07394	.2667	7.76754	-0.21945
1999	3.5733	1.85468	5.3167	1.35561	-0.02063
2000	2.8350	1.44424	6.15	1.86091	0.845176
2001	2.3317	1.53672	4.2333	2.84652	0.57178
2002	2.3483	1.61256	5.5	1.68760	0.668271

Likewise the average GDP growth rate comes to 6.515 which seem to be quite static in the beginning but a similar drop pattern can be observed in the latter part of the period. Two years out

of twelve i.e. 1998 and 1999 are showing a negative correlation coefficient between the FDI and the GDP which is supporting that a drop in FDI has caused the GDP to drop as well. If data are pooled together, we have 72 observations in total which probably make the analysis more logical. Table 4 gives a positive correlation coefficient of 0.228 stating that there is a correlation between the FDI and the GDP among the six sample countries over a given period of twelve years. The mean of the pooled data of FDI is 3.3863 and the GDP is 6.5146 with a standard deviation of 2.61759 and 5.30953 respectively. The correlation is significant at 5%.

Table 4 Foreign Direct Investment and GDP Growth (Panel Data)

	Mean	Standard Deviation	Correlation Coefficient	Sig. (1-tailed)
FDI	3.3863	2.61759	.228	.027
GDP	6.5146	5.30953		

Now it is imperative to analyze the trend and variances in the level of FDI. The trend of FDI has already been shown in the preceding section mentioning that China and India have a linear trend while the other four countries were hit hard in the year 1997-98 in the face of financial crisis. Apart from this, it will be of interest to ascertain the variance level of FDI. Analysis of variance has been used to indicate whether FDI contribution to country’s GDP is equal (on average) across the countries. Based on the earlier calculations, the following hypotheses could be constructed:-

H₀ = There is no difference in FDI level of contribution to its GDP across the countries

H₁ = There is difference.

Using the FDI (as proportion to GDP) figures of all the six countries across the twelve year period, the ANOVA calculation has been made and presented through the Table 5 as given below. The 5% significance rule states that the significance level is 0 which is less than .05, hence, the H₀ is rejected. In other words, there is significant evidence that the FDI contribution to GDP differs across the countries. Here, we showed the significance of differences between the groups but still we are not certain where these differences lie. For this, we need to analyze Post Hoc test.

Table 5

ANOVA

Foreign Direct Investments (As % of GDP)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	289.205	5	57.841	19.352	.000
Within Groups	197.271	66	2.989		
Total	486.477	71			

Table 6 presents total nine observations (as shown with*) where the differences are occurring. The main differences in FDI contributions to GDP lie between China and Philippines, China and Vietnam, China and India, Malaysia and Philippines, Malaysia and Thailand, Malaysia and India, Philippines and Vietnam, Thailand and Vietnam, and lastly Vietnam and India. It has already been observed earlier that variances occurred among the countries because of their geographical, political and economical structures. Sometimes the differences occur due to the crisis which has created big gaps in case of Malaysia, Thailand and Philippines. As the crisis broke out in 1997-98, the foreign institutional investors started looking for those countries which are more stable from economic and political point of view. This has probably led the investors to India and China dragging a substantial portion of FDI from the crisis-hit countries. The mean difference between China and Philippines is 2.2533 and between China and Vietnam is -2.2883 while the same between China and India is

comparatively higher at 3.6008. The other figures are between Malaysia and Philippines (3.2658), Malaysia and Thailand (2.6717), Malaysia and India (4.6133), Philippines and Vietnam (-4.5417), Thailand and Vietnam (-3.9475), and Vietnam and India (5.8892).

Table 6 Post Hoc Tests

Dependant Variable: Foreign Direct Investment (As % of GDP)				
(I) Country Name	(J) Country Name	Mean Difference (I-J)	Std. Error	Sig.
China	Philippines	2.2533*	0.7058	0.0324
	Vietnam	-2.2883*	0.7058	0.0279
	India	3.6008*	0.7058	0.0000
Malaysia	Philippines	3.2658*	0.7058	0.0003
	Thailand	2.6717*	0.7058	0.0050
	India	4.6133*	0.7058	0.0000
Philippines	Vietnam	-4.5417*	0.7058	0.0000
Thailand	Vietnam	-3.9475*	0.7058	0.0000
Vietnam	India	5.8892*	0.7058	0.0000

*The mean difference is significant at the .05 level.

CONCLUSION

The study has revealed that there has been a considerable growth in the amount of foreign direct investments in the developing countries of Asia. China and India have trapped a major share of the region's total FDI. These two countries have been observed to record a linear upward trend in terms of FDI receipts, and moreover, have not been affected much by the financial crisis of 1997. The remaining countries attracted reasonably good amount of FDI in the earlier years of study but the financial crisis badly affected their receipts and they could not sustain the level until 2002.

The direct and indirect benefits of FDI are quite evident and reflecting in figures. It has directly affected the growth through being a source of capital formation in the initial years of the globalization process. Capital formation has well been realised in terms of net additions to the capital stock of an economy, including the creation of factories, new machinery, and improved infrastructure and transportation. The indirect benefits have also been impressive as it has facilitated lot of employment opportunities. The panel data presents the results stating that there is a positive correlation between the FDI and the growth rate. Analysis of variance has been conducted and the results show that there is difference in the level of FDI contribution to the country's GDP. The Post Hoc Test result outlines total nine observations indicating the variances.

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