The Nature and Growth of Foreign Direct Investment and its Impact in Vietnam
A National Innovation System Perspective
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Abstract

In this paper we explore the possible relationship between the nature and characteristics of national system of innovation (NSI) and the nature and shape of FDI inflow and outcomes. We adapt an NSI-FDI conceptual framework that presents a taxonomy of NSIs as: well functioning/strong, relatively well functioning, and weak, and try to relate each of them to corresponding FDI outcomes. Despite some data limitations, our study show that the nature and characteristics of the NSI can impact on the nature and shape of FDI flows and outcomes in a particular economy, other things being equal. Therefore, it is important particularly for developing countries to formulate national policies to build systematically their NSI.

Keywords: Foreign direct investment, FDI inflow, FDI policy, National Innovation System, Vietnam

1. Introduction

Many developing countries view the flow of foreign direct investment (FDI) as an important source for achieving greater and faster economic growth. A number of studies have highlighted that there are benefits as well as costs from FDI for a host economy (e.g. OECD, 2002; Wei, 2005; Chakraborty and Basu, 2002; Rajan, 2005). Although overall benefits are considered to be greater than costs, it is argued that benefits of FDI are not automatic. Different studies use different models or approaches to analyse the nature of FDI flow and its impact in a particular economy. For example, two step ‘pipeline’ model was used Haskel et al. (2002) to study the technology transfer from parent MNCs to subsidiaries and the subsequent technology spillovers to domestic firms; and Konings (2001) focused on whether the limited capabilities of domestic firms

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act as constraints on absorbing the spillovers from MNCs. But Marin and Bell (2006) and Marin and Giuliani (2008) questioned the conventional ‘pipeline’ model by arguing that a substantial part of the technological potential for spillovers is generated within the local subsidiary by its own knowledge-creating activities, rather than being delivered to it from the parent company. Going beyond the MNC-subsidiary knowledge creating and spillover concerns, Baskaran and Muchie (2009) focused on the possible impact of the nature and characteristics of national system of innovation (NSI) on the nature of outcomes of FDI particularly in the host developing countries. For this, they employ a heuristic NSI-FDI conceptual framework that proposed three types of NSIs (well functioning/strong, relatively well functioning, and weak) in relation with three types of corresponding FDI outcomes (high-end, medium or average, and low-end). This study adapts this conceptual framework to explore the relationship between NSI characteristics and the nature of FDI and outcomes in Vietnam using descriptive data.

Starting with no foreign investment in 1986, by 2005, Vietnam had received US$5.8 billion of FDI for about 800 projects. In 2007, it was increased to over US$20 billion which was about 70% increase compared to 2006 figures. At the beginning of 2008, the number of the investments on the anvil continued increasing to 40 projects, worth about US$50 billion (Vietnam Foreign Investment Agency, 2010). These new investment projects covered most of the areas in Vietnam’s industry such as electricity, high-value manufacturing, electrical part production, steel manufacturing, high technology, entertainment complex development, seaport construction, hotel development, transport infrastructure, and urban development (Vietnam Foreign Investment Agency, 2010). This study analyses the nature of growth of FDI and outcomes in Vietnam from a NSI perspective, using the descriptive FDI data for Vietnam that were collected from different sources such as FIA Vietnam, UNCTAD, HIDS, and other sources

2. FDI Literature Review

Over the years, a number of studies focused on the determinants and performance of FDI in the host economy. In terms of the policy framework, in the report of Organisation for Economic Co-operation and Development (OECD) (2002) on the relations between FDI, trade, and trade policy in food sector, the situations of the four African countries including Ghana, Mozambique, Tunisia, and Uganda are examined. According to them, trade policy is suggested to have strong influence on geographical distribution of FDI. Banga (2003) focused on the effectiveness of government policies and investment agreement on FDI. It was suggested that various policies attracted
dissimilar FDI resources. For instance, FDI of developing countries might be attracted by financial support and reducing tariffs, while restriction removal policy, bilateral investment treaties are likely to be more interesting to investors of developed countries. Evidences from East-Asian countries demonstrated that developing nations would be successful in using FDI if they create and implement national and technological development policies properly (Herman et al., 2004). Regarding FDI effects, there are numerous opinions about the influences of FDI, but there is no conclusion in general because FDI outcomes depend on specific context and particular host countries (OECD, 2001; Blomstrom & Kokko, 1997; Zarsky, 2006).

The impacts of FDI can be categorised into 3 parts: economic, social, and environmental aspects.

From an economic point of view, Borensztein et al (1995), indicated that FDI plays a significant role in transferring technology from developed countries to developing countries and supporting positively the economic growth of the host countries. There are numerous researches which support this finding. Falki’s (2009) study of Pakistan found that FDI contributed to increase employment, productivity, export and technology transfer. The strong and positive relation between FDI and GDP was also found. In contrast, the findings of another study with Sri Lanka case study (Athukorala, 2003) showed that there was not tight linkage between FDI and economic development in the country, but there was evidence of positive civil society’s net attitudes that FDI could impact on opportunities for domestic business and economic activities. Alfaro (2003) suggested that the influence of FDI on the growth is ambiguous. Another study showed that the relation between FDI and GDP in the group is relatively weak (Hussein, 2009).

From a social perspective, FDI can affect the host countries’ social welfare both positively and negatively. Positive effects could be creating jobs, increasing labour productivity, improving human resources, enlarging foreign relationships, and so on. Rondinelli (2002) found that there were positive impacts of social responsibility and economic power of multinational corporations on host countries’ governments and public welfare. In contrast, negative effects could be increases in redundancy, human rights abuses, fiercer conflicts between employers and employees. Herman et al (2004), examining the influences of FDI on the society, indicated that there were more negative contributions to the society than positive due to constraints of the host countries’ law, regulation, and policy which negatively impact on the FDI outcomes. From an environmental viewpoint, according to OECD (2001), FDI impacts consist of scale (economic production), structural (production and consumption
redistribution), and technology effects (technological development and diffusion).

Baskaran and Muchie (2009, p.314) explored “a possible relationship between the characteristics of a National System of Innovation (NSI) and their impact on FDI outcomes, particularly in developing countries”, employing cases studies if emerging economies. This study adapts their FDI and NSI conceptual framework to analyse the nature of growth of FDI and outcomes in Vietnam.

In the case of FDI flow in Vietnam, there are only few in-depth studies evaluating the performance of the FDI and its impacts on Vietnamese socio-economy (i.e. Freeman, 2002; Nguyen Thi Phuong Hoa, 2002, 2004; Doan Ngoc Phuc, 2003; Nguyen Mai, 2004). They drew out the interrelationship between FDI and other economic factors, its successes and determinants in the economy.

According to Nguyen Mai (2004), based on Vietnam’s FDI statistics from 1988 to 2003, FDI has positively influenced the economic growth at the national level. Thus, Vietnam is suggested to expand the market and find more partners to attract more FDI inflows. Freeman (2002) pointed out several weaknesses in Vietnam’s FDI policy system and then came up with the conclusion that the business environment for the FDI is affected by the economic reform and trade liberalisation policies in a positive way. The effects of FDI on productivity growth in Vietnam’s economy have been analysed by Nguyen Thi Phuong Hoa (2004) using an analytical framework of relationship between FDI and poverty. The results of her research show that FDI has positively influenced on Vietnam’s economy at province level. The FDI effects are based on the formation and accumulation of capital assets. This study also proved that FDI interrelates to human resources positively. Moreover, she provided evidences that the FDI has positive spillover effects on the group of agricultural and forestry processing industries through labour movement. Doan Ngoc Phuc (2003) suggested that FDI significantly contributed to added value in industry sector, capital formulation, job creation, and supports commodity production and exports. Also, it helped to improve the balance of payments and the national economy’s competitiveness.

This study aims to add to this FDI literature and also to NSI literature.
2. NSI and FDI: A Conceptual Framework

The NSI concept has evolved over the years drawing from Friedrich List’s (1856) concept of ‘national production system’ (Freeman, 1982, 1987, 1995; Lundvall, 1988, 1992; Nelson, 1993; and Edquist, 1997). NSI has been increasingly used to understand building technological capabilities and industrialisation process in developing countries (e.g. Cimoli, 2000; Intarakumnerd and Chaaminade, 2007; Muchie et al., 2003).

Baskaran and Muchie (2009) categorise NSIs into broadly three groups: well functioning/ strong NSIs, relatively- well functioning/-strong NSIs, and non-functioning or weak NSIs. They argue that strong presence and interaction and linkages between various institutions, technologies, knowledge, incentives, investment, and infrastructure determine the higher or relatively stronger or weaker level of functioning of a particular NSI, and this in turn can shape the nature of FDI flow and outcomes.

|| 1. The general investment climate and policy framework | Macroeconomic and social stability, security, and regulatory regime such as trade and tax policies. |
|---|---|
| 2. Market and per capita income | Market size, growth, structure, proximity to regional and global markets. |
| 3. Infrastructure | Physical and technical infrastructure such as roads, ports, power, and ICT network. |
| 4. Educational system | Particularly technical tertiary education system producing skilled and quality technical people. |
| 5. Skilled labour or labour regulation | Availability of skills including scientific and engineering skills for competitive wage rates and flexible labour regulation. |
| 6. Incentives for linkages between actors | Fostering positive linkages between foreign, domestic firms, and R&D institutions including universities in developing local capabilities. |
| 7. R&D performing institutions | Private and public firms and labs, universities, and standards and quality setting institutions. |
| 8. Industrial structure | Presence of diverse industrial structure with high class technology and industrial clusters. |
| 9. IPR regime | Strong IPR regime, particularly to protect industries where technologies are easy to imitate. |
| 10. Implementation, monitoring and review | Ability to implement, monitor, review, and change policy framework for FDI. |

These are shown in Table 1. They proposed that an NSI is strong if it has over eight of these above components. The one which has about five of them is categorised as relatively strong. The others which have less than four are described as a weak NSI. Also, the category of NSI is determined by the level of complexity of components and their reaction, which in turn resulting in different FDI outcomes. A strong national system innovation will lead to highly positive performance of FDI (high outcomes), whereas a weak one will produce either little or negative effects of FDI (low outcomes). A relatively strong national innovation system creates relatively positive outcomes of FDI (medium outcomes).

Baskaran and Muchie (2009) also proposed the 10 major positive outcomes from FDI inflow, which were originally identified by UNCTAD (1999). These are: (i) Increasing income growth by raising investment rates; (ii) Technology acquisition/ transfer, technological capacity-building, and technological learning; (iii) Improved and adaptable skills, and new organizational practices and management techniques; (iv) Improving exports in world markets; (v) Creating more and better employment opportunities; (vi) Foster new and higher value-added activities to produce goods and services; (vii) Raising technical efficiency and competitiveness of local firms, suppliers, and clients through linkages and by intensifying competition; (viii) Raising the local R&D effort to increase efficiency by domestic firms (i.e. to upgrade and improve existing technologies); (ix) Establishment of R&D and design facilities by foreign firms; (x) Development of marketing networks and market intelligence.

As we have seen in the literature review section the FDI outcomes could be also seen in three broad categories: economic, social, and environmental. This study adapts NSI-FDI framework of Baskaran and Muchie (2009) by incorporating economic, social, and environmental outcome categories to analyse the nature of FDI flow and outcomes in Vietnam and to make policy suggestions to strengthen the performance of FDI in Vietnam. This makes contribution in two aspects: (i) this adds a new perspective to the existing NSI literature; and (ii) this also adds to the existing literature of FDI in general and FDI in Vietnam in particular.
Table 2: Relationship between the level of NSI and the level of FDI & Socio-economic Outcomes

<table>
<thead>
<tr>
<th>Type</th>
<th>Strong NSI results in High end FDI outcomes</th>
<th>Relatively strong NSI results in Medium FDI outcomes</th>
<th>Weak NSI results in Low FDI outcomes</th>
</tr>
</thead>
</table>
| Economic aspects | 1. Major source for economic growth  
  2. Significant contribution to restructure national economy, labour, and improve industrial production capacity  
  3. Creating the balance in industries and territories  
  4. High level of technology transfer and technological learning in various sectors  
  5. Positive effects on other economic sectors  
  6. Positively contributing to the State Budget and improving the economic balances  
  7. High export growth | 1. Additional source for economic growth  
  2. Relatively positive contribution to restructure national economy, labour, and improve industrial production capacity  
  3. Improving the balance in industries and territories  
  4. Low or restricted level of technology transfer and technological learning in several sectors  
  5. Limited effects on other economic sectors  
  6. Limited contribution to the State Budget and improving the economic balances  
  7. Significant export growth | 1. Little contribution for economic growth  
  2. Little contribution to restructure national economy, labour, and improve industrial production capacity  
  3. Creating the imbalance in industries and territories  
  4. No or low level of technology transfer and technological learning in various sectors  
  5. No or negative effects on other economic sectors  
  6. Insignificant contribution to the State Budget and economic balances  
  7. Insignificant export growth |
| Social aspects | 1. Significant increase in employment  
  2. Highly positive contribution on enlarging foreign relationships and integrating to local and global economy  
  3. Innovation in labour issue handling | 1. High increase in employment  
  2. Positive contribution on enlarging foreign relationships and integrating to local and global economy  
  3. Improvement in labour issue handling | 1. Insignificant or no increase in employment  
  2. Low or insignificant contribution on enlarging foreign relationships and integrating to local and global economy  
  3. No improvement in labour issue handling |
| Environmental aspects | 1. Low environmental pollution index  
  2. Well equipped technology to handle water disposal | 1. Medium environmental pollution index  
  2. Relatively well equipped technology to handle water disposal | 1. High environmental pollution index  
  2. Poor equipped technology to handle water disposal |

3. FDI Policy Framework in Vietnam

The Law on Foreign Investment – 1987 created a better legal environment to attract FDI into Vietnam. This law has been supplemented in order to suit the new circumstances; in particular, its motto is to develop diversifying and multilateral foreign trading relationships and to improve the effectiveness of international cooperation (Vietnam Foreign Investment Law, 1987, p.1).

According to Ministry of Planning and Investment Portal (2010), since it was promulgated, the foreign investment law was amended and remarkably supplemented 4 times in 1990, 1992, 1996, and 2000. It is considered as clear and basically consistent with international standards. This law and other legal documents relating to FDI have created a good legal environment for FDI activities in Vietnam. In parallel with improving the legal system, agreements with other countries were signed to encourage and protect FDI. Although Vietnam’s market is imperfect, these measures have helped FDI flow into the country without significant difficulties compared with other countries which originally have existing market economy.

The aims of investment law are to make a good business and legal environment for existing and potential businesses/investors; to create a level playing field of equality and non discrimination for investors; to simplify investment procedures to attract and effectively exploit investment capital; to meet the demand of international economic integration; and to enhance the management of the government for investment activities (Vietnam Investment Law, 2005, p.1). For these reasons, in 2005, Vietnamese Congress approved the Investment Law which have came into force from 1st July 2006 and replaced the Law on Foreign Investment and Law on Domestic Investment Promotion in the previous period. This change represents the interest of the government to economic sectors invested by foreign capital. Over the years, the Investment Law has played an important part in making positive changes in the performance of FDI in Vietnam, especially from 2006 to present.

The actual development of FDI in Vietnam during 20 years shows that it is essential to create a legal environment for FDI, especially in the context of fierce competition in the region and all over the world (Vietnam Foreign Investment Agency (FIA Vietnam), 2007). Therefore, the law on Foreign Investment has become an important leverage in attracting FDI into the country. It has supported the implementation of the policy relating to attracting FDI.
Vietnam Investment Law (2005) led to decentralisation of power to the Provincial People’s Committees and the Boards of Management of industrial, processing, hi-tech areas to issue investment certificate, and manage investment activity and project reduction. Following these, only important projects which are not included in the original plan are needed to be approved by Prime Minister. The remaining projects which are already in the planning approval and meet the conditions prescribed by law and international treaties will be decided by the Provincial People Committees and the Boards of Management.

The power decentralisation to the Provincial People Committees and Boards of Management is one of the policies to reform the administration in economic management. It has made easier for the Provincial People Committees and the Boards of Management to manage investment activities, particularly FDI in their regions. Also, it has created favourable conditions for the top government managers to centralise their functions which are to formulate policy, to forecast, to inspect, and to supervise the economy generally (FIA Vietnam, 2010).

Furthermore, the government did simplify the management activities of local FDI, especially business areas which have plenty of FDI (Ministry of Planning and Investment Portal, 2010). It is a big innovation which is contributing to improve the investment environment for the local business. The ministries, branches and provincial People’s Committee also collaborate to support implementing process including assessing to grant Certificate of Investment and supporting enterprises to overcome their difficulties.

According to VnExpress.net (2009), training courses as to provide professional exchanges and supports have been opened by Vietnam Ministry of Planning and Investment. The activities include organising conferences, building promotion campaign, creating the list of projects which are being demanded investment, issuing FDI guidelines in the local level. These actions have helped to improve FDI efficiency and attract more capital into Vietnam. Therefore, it can be seen that the legal framework has been gradually improving; the quality of management has also increased. They are the key dynamics which are contributing to the positive results of FDI activities in Vietnam.

*Granted Projects*

Reported by Vietnam Foreign Investment Agency (FIA Vietnam, 2009), by the end of 2009, there were 10,960 foreign invested projects which had been approved with total investment capital registered approximately US$177.113 billion. Although the FDI has been allowed only 20 years ago, it has grown rapidly and spread broadly. In order to analyse deeply the development of the FDI in Vietnam, the overview of FDI since 1988 is shown in Table 3.

As can be seen in Table 3, in the period of three years from 1988 to 1990, there were only 211 projects supported by foreign capitals with total granted capital of around US$1.6 billion. It could be due to the fact that the law on FDI in Vietnam had just come to existence, its effects on FDI capitals were still limited. Obviously it could be said that FDI in this time did not influence the national socio-economy much.

The period from 1991 to 1995 could be considered as the great phase of FDI in Vietnam with 1,409 projects approved and the total granted capital of approximately US$17.6 billion, including new capital and increased capital. It had a positive impact on the economic situation of the country. According to FIA Vietnam (2010), the period is evaluated by economic analysts as the first wave of FDI when the national business environment have started attracting investors due to its lower cost of business investment, and its cheap and plentiful workforce. It could be also because Vietnam is a new market which had never had much interest from investors before. Therefore, FDI have grown rapidly, spread into other economic sectors, and contribute positively to the socio-economy of Vietnam. In particular, in 1995, the total granted capital of US$6.9 billion was attracted. It is 5.4 times higher than those in 1991, which were only approximately US$1.3 billion (FIA Vietnam, 2007, 2008, 2009; HIDS, 2009).
Table 3: FDI in Vietnam - Granted projects from 1988 to 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of projects</th>
<th>Granted capital (million US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988 – 1990</td>
<td>211</td>
<td>1,602.2</td>
</tr>
<tr>
<td>1988</td>
<td>37</td>
<td>341.7</td>
</tr>
<tr>
<td>1989</td>
<td>67</td>
<td>525.5</td>
</tr>
<tr>
<td>1990</td>
<td>107</td>
<td>735.0</td>
</tr>
<tr>
<td>1991-1995</td>
<td>1,409</td>
<td>17,663.0</td>
</tr>
<tr>
<td>1991</td>
<td>152</td>
<td>1,291.5</td>
</tr>
<tr>
<td>1992</td>
<td>196</td>
<td>2,208.5</td>
</tr>
<tr>
<td>1993</td>
<td>274</td>
<td>3,037.4</td>
</tr>
<tr>
<td>1994</td>
<td>372</td>
<td>4,188.4</td>
</tr>
<tr>
<td>1995</td>
<td>415</td>
<td>6,937.2</td>
</tr>
<tr>
<td>1996-2000</td>
<td>1,724</td>
<td>26,259.0</td>
</tr>
<tr>
<td>1996</td>
<td>372</td>
<td>10,164.1</td>
</tr>
<tr>
<td>1997</td>
<td>349</td>
<td>5,590.7</td>
</tr>
<tr>
<td>1998</td>
<td>285</td>
<td>5,099.9</td>
</tr>
<tr>
<td>1999</td>
<td>327</td>
<td>2,565.4</td>
</tr>
<tr>
<td>2000</td>
<td>391</td>
<td>2,838.9</td>
</tr>
<tr>
<td>2001-2005</td>
<td>3,935</td>
<td>20,720.0</td>
</tr>
<tr>
<td>2001</td>
<td>555</td>
<td>3,142.8</td>
</tr>
<tr>
<td>2002</td>
<td>808</td>
<td>2,998.8</td>
</tr>
<tr>
<td>2003</td>
<td>791</td>
<td>3,191.2</td>
</tr>
<tr>
<td>2004</td>
<td>811</td>
<td>4,547.6</td>
</tr>
<tr>
<td>2005</td>
<td>970</td>
<td>6,839.8</td>
</tr>
<tr>
<td>2006-2009</td>
<td>4,541</td>
<td>126,559.8</td>
</tr>
<tr>
<td>2006</td>
<td>987</td>
<td>12,004.0</td>
</tr>
<tr>
<td>2007</td>
<td>1,544</td>
<td>21,347.8</td>
</tr>
<tr>
<td>2008</td>
<td>1,171</td>
<td>71,725.9</td>
</tr>
<tr>
<td>2009</td>
<td>839</td>
<td>21,482.1</td>
</tr>
</tbody>
</table>


The numbers fluctuated in the period from 1996 to 2000. According to Table 3 of granted projects, the total licensed capital was over US$10 billion in 1996, 45% more than the previous year. From 1997 to 1999, there were 961 projects licensed with total amount of more than US$13 billion. However, these capitals tended to decline. In 1998, granted capital was equal to 81.8% of that in 1997. The number in 1999 was equivalent to only 46.8% of 1998. It is due to financial problems of investors and Asian Financial Crisis in 1997-1998, especially those from Korea and Hong Kong (HIDS, 2009). In 2000, FDI was likely to be recovered. Newly granted capital in the year was US$2.8 billion, an increase of 21% compared to that in 1999 (calculated from Table 3).
In the next period, though there was a recovery of FDI, its performance was unstable in some years. The rate of increase was also slow. For instance, the capital in 2001 increased 18.2% over 2000. In 2002, the granted capital decreased slightly, i.e. it was equal to 91.6% of 2001. The granted capital in 2003 rose again, reaching US$3.1 billion, which was an increase of 6% compared to 2002. From 2004, it rapidly increased. Particularly, FDI capital in 2004 reached US$4.5 billion, going up 45.1% in the comparison with the previous year. The figure of 2005 increased 50.8% (calculated from Table 3). The period from 2006 to 2009 can be considered as the most successful year of FDI. Compared to 2005, FDI in 2006 grew up by approximately 75.5%. In 2007, FDI continuously increased to US$21.3 billion, up by 77.8% compared to 2006, and more than doubled the number in 1996. The FDI inflow in 2008 reached a record at US$71 million. However, the figure went down in 2009 at around US$21.5 billion (calculated from Table 3).

Overall, Table 3 shows that the figures for consequent years are higher than previous years. However, according to HIDS (2009), most of projects are still small and medium scale. In 2006 and 2007, FDI capital flowed into Vietnam has increased significantly. The total capital in two years was US$33.3 billion with many large scale projects, especially projects in the industry and service sectors such as steel manufacturing, electronics, high technology products, seaports, information technology, and tourism. This period is considered as the most successful period of FDI in Vietnam.

The trend of granted foreign invested projects over the periods is also presented more clearly in Figure 1.
Investment capital increase and project expansion

Besides attracting new investment projects, many granted projects after working effectively have expanded their scales and increase investments, especially from 2001. According to FIA Vietnam report (2009), up to the end of 2009, there were over 5,500 proposed capital increase. In 2009 alone, 215 projects were approved to raise capital with a total increased investment of over US$5.13 billion (FIA Vietnam, 2009).

From 1988 to 1990, the amount of increased investments was very small, due to the fact that there were few projects that had foreign investment. The capital increase reached US$2.13 billion in the five year period from 1991 to 1995. It continuously rose to US$4.17 billion between 1996 and 2000, which was almost double than the figure for the previous five years. From 2001 to 2005, investment reached US$7.08 billion, 69% more than that of previous five years. In particular, the amount of capital increased is over US$1 billion in 2002. From 2006 to 2009, the capital increased over US$2 billion per year, which grew average 35% each year (HIDS, 2009; FIA Vietnam, 2010). Capital increase primarily focused on projects relating to industrial production and construction sectors. For example, it reached around 40.6% in the period of 1991-1995, 65.7% from 1996 to 2000, and about 77.3% in the period between 2001 and 2005. The rate of increase in 2006 and 2007 was respectively 80.17% and 79.1% of total increased capital. In addition, investment capitals were mostly from investors in Asia (59%), therefore capital increase and capital expansion from Asian investors also accounted for the highest proportion of
66.8% in the period 1991-1995. This number in the period 1996-2000 was 67%, in the period 2001-2005 it was 70.3%. The rates in 2006 and 2007 were 72.1% and 80% respectively (FIA Vietnam, 2010).

Increased investments to expanded production activities were primarily implemented in several important economic areas where there was high concentration of foreign invested projects. For example, according to FIA Vietnam (2010), the Southern economic area occupied 55.5% in the period 1991-1995; 68.1% in the period 1996-2000; and 71.5% in the period 2001-2005. On the other hand, the Northern areas’ rates were 36.7%, 20.4%, 21.1% respectively.

In accordance to the survey of the Japanese Trade Promotion Organisation in Vietnam, 70% of the investigated FDI enterprises were planning to increase capital and expand production activities. This demonstrates the increased confidence and more interest of the foreign investors in the business investment environment in Vietnam.

Scale of projects

Over the years, the size of foreign invested projects has been fluctuated which shows the influences of financial capability and the attention of foreign investors on Vietnamese investment environment. Average scale of investment projects has increased during the years, although it was standstill in a few years after the regional financial crisis in 1997-1998.

Table 4: Scale of FDI projects in Vietnam (1988 – 2009)

<table>
<thead>
<tr>
<th>Period</th>
<th>Average size of project (US$ million/ a project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-1990</td>
<td>7.59</td>
</tr>
<tr>
<td>1991-1995</td>
<td>12.53</td>
</tr>
<tr>
<td>1996-2000</td>
<td>15.23</td>
</tr>
<tr>
<td>2001-2005</td>
<td>5.27</td>
</tr>
<tr>
<td>2006-2009</td>
<td>25.04</td>
</tr>
</tbody>
</table>


As seen in Table 4, from 1988 to 1990, the average scale of granted investment capital was US$7.59 million per project per year. There was an increase in the size of average granted capital per project. The average capital per project was US$12.53 million in the period 1991-1995, and had increased to US$15.23 million per project in the period of 1996-2000. This is due to the fact that the
number of large projects licensed in the period 1996-2000 was more than that of the previous 5 years. However, in the period between 2001 and 2005, the scale of the granted capital decreased to US$5.27 million per project. This implied that most of newly granted projects in the period 2001-2005 were very small scale. From 2006 to 2009, average investment scale per project remarkably increased to US$25.04 million. That is, large-scale projects had increased compared to previous periods. Especially there were a number of multi-national corporations such as Intel, Panasonic, Honhai, Compal, Piaggio, who invested in big projects (HIDS, 2009; FIA Vietnam, 2010).

**Foreign direct investment by industries**

Vietnamese economy consists of 3 main industries, namely industry and construction, services, agriculture – forestry – fishery. Based on this economic structure, the foreign investments are distributed proportionally:

**Figure 2: Share of FDI by industries (up to 2009)**

![Pie chart showing industry distribution](image)


**Foreign direct investment in industrial and construction sectors**

Since the Law on Foreign Investment came into existence in 1987, Vietnam has focused on attracting FDI in industrial and construction segments. In each stage, the priority areas needed to attract investment have changed, the specific products were identified in the List of Investment Recommended Areas. In the 1990s, projects the government encouraged to develop were those relating to manufacturing activities substituted for imported goods, goods production for export, and projects which use domestic raw materials and have high localisation rate (FIA Vietnam, 2010).
After joining the WTO in 2006, Vietnam has abolished the regulations on preferential treatment for projects which have high exporting rates and use domestic materials. Over the years, the policy to attract FDI in industrial and construction has changed but still basically orientated to encourage productions of new materials, high technology products, information technology, mechanical manufacturing, and so on. They are projects which are likely to create high value and also based on comparative advantage of Vietnam’s economy. For these reasons, foreign invested projects in the areas mentioned above; including oil and gas exploration and exploitation, high technology manufacturing, electrical and electronic, iron and steel, and textile production; still remain an important contribution to economic growth, exports, and creating jobs. On the other hand, investment structure has changed positively towards high technology, oil refining and information technology fields. The main investors in these sections are well-known multinational corporations such as Intel, Panasonic, Canon, and Robotech. Most of the foreign invested projects use nearly 100% modern and automatic equipments in order to have high production, high productivity, and good quality (FIA Vietnam, 2010). This positively affects on the value of the whole industrial and construction section.

<table>
<thead>
<tr>
<th>Sections</th>
<th>No. of Projects</th>
<th>Granted capital (million US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining Industry</td>
<td>66</td>
<td>3,079</td>
</tr>
<tr>
<td>Processing Industry</td>
<td>6,766</td>
<td>88,851</td>
</tr>
<tr>
<td>Construction</td>
<td>501</td>
<td>9,103</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,333</strong></td>
<td><strong>101,033</strong></td>
</tr>
</tbody>
</table>

*Source: Derived from FIA Vietnam, 2009.*
By the end of 2009, industrial and construction sections made up the largest proportion in the total FDI. There were 7,333 valid projects, with the total granted capital of over US$101 billion, accounting for 66% of the total invested projects, that is, 57% of the total granted capital (FIA Vietnam, 2009). Of them, processing industry accounts for 87.94% of the total granted capital with US$88,851 million (Table 5, Figure 3).

**Foreign direct investment in service sector**

Many Vietnamese government policies have created favourable conditions for the development of services since the Law on Foreign Investment was implemented in 1987. Therefore, the service sector have had positive changes and better met the needs of production, consumption of the public. Some service sectors such as real estate, restaurants and hotels, communication services, have continuously grown significantly. These areas have attracted a lot of workers and promoted exporting. It is partly due to the fact that Vietnam joined the World Trade Organisation (WTO) in 2007 and has implemented their commitments.
Figure 4: FDI in service sector in Vietnam (up to the end of 2009) (US$ millions)

As can be seen in Figure 4 and Figure 5, FDI in the sector primarily focused on real estate business which contributes approximately 54.9% of the total capital invested in the sector. Besides, restaurants and hotels made up 20.5%, communication services accounted for 6.4%, whereas education and training service only 0.4% of the total and so on.

According to FIA Vietnam (2009), although investment continued to focus on industrial sector which made up 57% to the total investment in 2009, it can be seen that there has been heavy restructuring towards the service sector, accounting for approximately 41% the total granted capital.

*Foreign direct investment in Agriculture-Forestry-Fishery sectors*

Although there are a plenty of incentives for investment projects in Agriculture, Forestry and Fishery sectors, due to their high risk, the result of attracting FDI to the sector has not been as expected. Most of FDI projects investing in these sectors aim at poor people including ethnic minorities, small farmers, and women headed households, in order to reduce poverty and create better living conditions.
According to FIA Vietnam (2009), by the end of 2009, there were 480 valid projects invested in these sectors with total granted capital of over US$3 billion. They accounted for 4.38% of the total invested projects; 1.7% of the total granted capital (Figure 2). In accordance to the organisation, the most effective projects consisted of sugar cane, rice, milling wheat flour, cassava, and vegetable processing. The others are reforestation and forest product processing projects.

There have been 50 countries and territories investing directly in agricultural-forestry-fishery section of Vietnam so far. Among them, in 2007, the Asian countries such as Taiwan, Japan, China, Hong Kong account for 60% of the total granted capital in the agricultural sector, especially Taiwan contributing 28% (FIA Vietnam, 2010). Regarding European countries, investment from France and British Virgin Islands amounted to 8% and 11% respectively. Nevertheless, countries, whose agricultural sectors are developing strongly such as United States, Canada, and Australia, tend not to invest in agricultural sector in Vietnam (HIDS, 2009; FIA Vietnam, 2010).

**FDI by regions**

Within 20 years, FDI has become nation-wide but focused mainly in important locations in 3 main areas: Southern, Middle, and Northern of Vietnam. They are considered as key points to restructure the local economy and support socio-economic development.

Up to 2007, key locations in the Northern of Vietnam have received 2,220 valid projects with the total capital of US$24 billion, contributing 26% to total projects, 27% of the total nation’s granted capital. Among them, most of the projects are located in Hanoi. Number of the projects in Hanoi is 987, totally equivalent to US$12.4 billion granted capital, accounting for 51% of granted capital. Southern key areas have attracted 5,293 projects with total investment capital of US$44.87 billion by the end of 2007, accounting for 54% of granted capital (FIA Vietnam, 2010). In particular, Ho Chi Minh City is the city with the largest number of 2,398 projects, approximately US$16.5 billion, accounting for 36.9% of the total granted capital of the region. It is followed by Dong Nai which has 918 projects in process with total granted capital of US$11.6 billion, making up 25.9% to the region’s granted capital. Binh Duong is the third ranked with 1,570 projects and US$8.4 billion granted capital contributing 18.8% of total granted capital of the region (FIA Vietnam, 2010).
Key locations in Middle Vietnam have the smallest number of projects. Particularly, during the time from 1987 to 2007, 491 projects have been attracted into these areas, equivalent to total granted capital of US$8.6 billion, contributing 6% of the total granted capital of the country. One of the biggest projects in the region is the Vung Ro Oil Refinery with the granted capital of US$1.7 billion (FIA Vietnam, 2010). Although this sector has been able to attract significant FDI, especially in projects relating to entertainment and resorts, it is still considered to be below its potential.

Overall, though there are several especially preferential policies from the government for those regions, still they could attract only limited FDI due to their geographic and economic conditions.

5. FDI Outcomes in Vietnam

In terms of production and business activities, in the last 20 years, the FDI sector has contributed to the development of national socio-economic in terms of creating significant value, positively contributing to the country’s budget and creating jobs.

The share of FDI sector towards contributing to GDP has been increasing over the years and becoming an important component of the economy. The continuous increase of FDI and its contribution to GDP every year is an illustration. Between 1991 and 1995, its average contribution to GDP was 6.3%. This number grew to 10.3% within next five years. In the period from 2001 to 2005, the contributing proportion reached 14.6% averagely. Especially in 2005 FDI sector accounted for about 15.5% of GDP, higher than expected. The number continuously increased between 2006 and 2009, making up more than 17% to GDP.

In the period 1991-1995, the total revenue value reached US$4.1 billion, of which export value excluding crude oil was US$1.2 billion, contributing 30% to the total revenue. This increased steeply in the period between 1996 and 2000, particularly total sales value was up to US$27.09 billion, of which exports exclusive of crude oil was US$10.59 billion, making up 39% of total revenues, increasing 6.5 times then its last five years. From 2001 to 2005, the total value of sales increased to US$77.4 billion with the export value of US$34.6 billion apart from crude oil, contributing 44.7% to total revenue, growing 2.8 times than the five year period from 1996 to 2000. In 2006 - 2009, the total sales value was
over US$69 billion including US$28.6 billion of export value (exclusive of crude oil), equal to 41% of total revenue (FIA Vietnam, 2010).

For the FDI sector, export value part has also increased rapidly. For example, the total export value of the whole period 1991-1995 was US$1.2 billion. The number grew up to US$10.5 billion in the period from 1996 to 2000, which was over 8 times higher than previous era. Five years later, it reached up to US$34.6 billion, tripled the figure of the earlier period. Particularly the numbers of each year from 2002 to 2005 were increased by 25%, 38%, 39%, and 26% respectively. The 2006 export value in foreign invested sector was US$12.6 billion, accounting for above 57% of the country. The number has continuously increased and reached US$ 27.3 billion, which contributed 56.8% to the total national export value (FIA Vietnam, 2010).

In the early years when the law of foreign investment began to be implemented, few preferential policies for this sector were made by the government. However, it was shown that the sector has contributed positively to the state budget. The inflow to the state budget from FDI sector has been increasing over the years. Especially in 2006 the number was over US$1.29 billion, 39.5% higher than the previous year and contributing 12% to the total state budget income. The period between 1991 and 1995, due to the preferential policies of government towards FDI sector, its contribution was limited at US$115 million. However, in the next five years this figure rapidly increased to US$1.49 billion, over 10 times higher, since the preferential tax policies for several businesses were expired of date. From 2001 to 2005, the sector contributed US$ 3.6 billion to the state budget, doubled the number of the previous five years. The inflow to the state budget from this sector continuously increased in consequent years. Notably the contribution in only 2006 is US$1.4 billion, equivalent to that of the whole era from 1996 to 2000 (FIA Vietnam, 2010).

FDI sector has also created jobs and stable income. According to Ministry of Planning and Investment Portal (2010) and FIA Vietnam (2010), from 1988 to 2007, there are more than 1.26 million direct labours. Number of employees was gradually increased by periods. In particular, the figure at the end of 1995 was only 210 thousand, which increased steeply to 379 thousand direct labours five years later. At the end of 2005, it increased 2.5 times, due to the fact that number of the implemented project was increased remarkably. Numbers of labours in 2006 -2009 were increased by 9.9% and 12%, showing that the demand of employees for projects is bigger and bigger (Ministry of Planning and Investment Portal, 2010; FIA Vietnam, 2010).
FDI outcomes could also be assessed in various aspects such as economical, social, and environmental.

**Economical aspects**

Firstly, from economical point of view, FDI brought significant benefits as well as detriments as following:

From 1990 to 1995, the value of FDI has significantly varied. It was 13.1% in 1990 and grew up to 32.3% in five year time (FIA Vietnam, 2007). However, due to the influence of financial crisis in the region, the figure gradually reduced in the next five years. At the end of 2000, FDI contributed only 18.6% to the total investment in Vietnam. From 2001 to 2005, it made up 16% of the total investment. Particularly, the rates were 16%, 14.2%, 14.9% in 2003, 2004 and 2005 respectively (FIA Vietnam, 2007; HIDS, 2009). According to Statistical Yearbook report (2010); the FDI in 2006-2007 accounted for 16% in average.

With these values added to the national investment, FDI has contributed to boost the country’s economic growth. For instance, from 1991-2000, GDP has continuously increased at the average rate of 7.56% per year (FIA Vietnam, 2007). According to reports of FIA Vietnam (2010), GDP in the period from 1991 to 1995 grew up 8.18%, of which agricultural, forestry and fishing industry, construction, and services accounted for 2.4%, 11.3%, 7.2% respectively. The rate from 1996 to 2000 was 6.94%, of which agricultural, forestry and fishing contributed 4.3%, construction 10.6%, and services 5.75%. Comparing to those of 1990, the total domestic production in 2000 was doubled. Moreover, GDP continued to increase and reached 7.5% in the period 2001-2005, of which agriculture, forestry and aquaculture accounted for 3.8%, construction 10.2%, and services 7%. The number in 2006 reached 8.17%, including 3.4% from agricultural, forestry and fishing industry, 10.37% construction, and 8.29% from services. It slightly increased to 8.48% in 2007, of which agricultural, forestry and fishing industry was 3.4%, construction 10.6% and services 8.6%.

Secondly, FDI contributes positively to restructure the national economy and labour, and also improves industrial production capacity:

During 20 years, FDI played an important role in the economic development and has become a key source of the total investment of the nation by encouraging the
development of industry and creating more jobs. A number of foreign invested projects were completed and have been working efficiently. Projects relating to power, oil and gas, heavy and manufacturing industry which were foundations for consequent stages were speeded up to operate.

According to the report of, the growth rates of the sector are higher than that of the country and have been increasing continuously over the years. In particular, the growth rate was 23.79% in 1991, 40% in 2005 and 41% in 2006 (FIA Vietnam, 2010). These figures suggest that the FDI factor has remarkably contributed to encourage economic restructuring in terms of industrialisation and modernisation.

Production value of the sector in the last 5 years contributed averagely 42.5% to that of the country. In specific, the percentage in 2000 which was 41.3% increased to 43.7% in 2004 and 2005; especially the rates of provinces such as Binh Duong, Dong Nai, Vinh Phuc, reached 65-70% (FIA Vietnam, 2010).

FDI has not only created many new industries, but also strengthened the capacity of industries such as oil and gas, information technology, chemicals, automobiles, motorcycles, electronics, leather and footwear, textiles and so on. Currently FDI is accounting for 100% production of industrial products including oil and gas, computer equipment, washing machines, air conditioning; 60% of steel production, 33% of electronics, 76% of precision medical equipment, 49% of shoes and leather, 55% of fibres, and 25% of garments (FIA Vietnam, 2010).

To sum up, foreign invested sector plays a key part in forming and developing Vietnamese industries including industrial parks and high-tech zones. It also provides conditions to use less fertile land effectively.

Thirdly, in terms of the balance in industries and territories, an imbalance was created:

It is a fact that profit is the main objective of every investor. That means any project or business which has high rate of return will catch more attention of foreign investors. In contrast, the others which are vital for people but make insufficient profit may fail to attract FDI.

In order to operate projects easier, foreign investors are generally attracted by places which have good conditions including well-equipped socio-economic
infrastructure. For this reason, big cities, lowland, and harbour provinces have more advantages. In contrast, poorer locations in highland regions which need to speed up the economic growth rate are not the first focus of the investors; even these areas offered them more incentive conditions. Therefore, it led to an unexpected result that places which have higher level of development attract more FDI, whereas those which are less developed receive less investments. Like a cycle, the imbalance is becoming bigger and bigger.

Fourthly, FDI helps to promote technology transfer:

The FDI flows have significantly contributed to promote technology transfer into Vietnam in order to develop a number of important economic sectors such as telecommunications, petroleum exploration and exploitation, chemical, mechanical manufacturing electronics, car, motorcycle, and so on. Especially, a lot of international companies have invested in high-tech projects. For instance, Intel Corporation invested US$1 billion into Vietnam in the project producing high-quality electronic components. It is indicated as one of the biggest foreign invested projects in Vietnam (FIA Vietnam, 2010).

Most of the projects have adopted sophisticated management methods and also have been generally influenced by the strategy of mother companies. Therefore, the efficiency of FDI areas is generally higher than others. In agriculture-forestry-fishery, FDI has created some new products with high technical content. New products in agriculture, forestry and fishery with high quality are illustrations of this.

However, there is a gap in technology transfer. Generally speaking, levels of equipments and technologies installed in foreign invested businesses are higher than those of domestic firms in the same fields. Nevertheless, in some cases, foreign investors took advantage of weaknesses in Vietnamese laws and poor abilities in inspection and supervision to import some backward machinery technologies or even discarded machineries from other countries. Also, book value of imported equipments which are recorded in invoices is normally higher than the average global market price. As a result, some unethical investors appear to have used this as a tool to make bigger proportion in their joint venture with Vietnamese companies.

The foreign technology transfer into Vietnam is regularised by contracts between parties and approved by the State Agency of science and technology. However, it is very difficult for countries who receive investment, including
Vietnam, to assess the accurate value of technology, especially high-tech productions. Foreign businesses transferred technology and trading methods to domestics on one hand and on the other hand, they forced domestic enterprises to strengthen their competitiveness to survive in the context of globalisation.

*Another impact of FDI is on the State Budget and the economic balances.*

FDI sector is increasing to contribute to the Vietnamese budget. For example, in the period from 1996 to 2000, the contribution of foreign invested enterprises, not including income from crude oil, was up to US$1.49 billion, which is 4.5 times than the previous five year time. From 2001 to 2005, inflows of the state budget from FDI sector grew to over US$3.6 billion with the increased speed of 24% per year averagely. Especially in 2006 and 2007, the sector had contributed over US$ 3 billion, which was double than that of the period 1996-2000, and equal to 83% in the five year time from 2001 to 2005 (FIA Vietnam, 2010).

In terms of influence on the economic balances, FDI also affected positively the budget balance. In addition, it was helpful to improve the current balance, the balance of international payment by transferring capital into Vietnam, and developing source of foreign exchange indirectly from international tourists, rental and machinery, materials purchases from foreign businesses.

Finally, FDI sector helps Vietnam to integrate international economy intensively and increases national exports production.

The increased rate of export turnover in the sector grew very fast and generally higher than that of the country. That is, it accounted for a significant proportion to the national export turnover. In particular, export turnovers of FDI sector reached US$10.6 billion (excluding crude oil) in the period from 1996 to 2000, which is more than 8 times than the last five years, and contributing 23% of the total export turnover of Vietnam. Moreover, the rate continuously grew up; for instance, it was 25% in 2000, increasing to 31% in 2003, 54% in 2004, and over 55% in each of 2005, 2006 and 2007. In some fields such as petroleum, shoes and leather products, FDI sector accounts for big proportion of export production. It contributed 100% to the national petroleum exports, 84% to the national electronics, computers and accessories exports, 42% to shoes and leather products, and 35% to garments (FIA Vietnam, 2010). These products are accessed to global market through the network consumption of international corporations and gradually closer to the world’s consumers. Therefore, it could
be concluded that the sector has helped the national economy to integrate to the world in every industry.

**Social aspect**

The impacts of FDI in social aspect are relating to employment, foreign relationships, and international integrations. During the last 20 years, FDI has been contributing significantly in this aspect.

Firstly, FDI played a significant part in creating jobs, increasing labour productivity, improving human resources. FDI sector has created more than 1.2 million direct jobs so far excluding indirect labours. By this way, the sector has played a part in improving social welfare and enhancing living standards. It also contributed to increase annual GDP per capita.

In addition, foreign enterprises with a lot of experiences in human resource management have gradually formed standard team of managers, high qualified and skilled employees when directly operating businesses in Vietnam. It gives labours opportunities to work with modern technology, and gain professional working style and knowledge about frontier science and technology. On the other hand, FDI in Vietnam has created a competitive environment which enhanced domestic firms to innovate their technology and management method in order to improve quality and win in competition.

FDI sector also helped to enlarge foreign relationships and integrate to local and global economy actively. FDI played a significant role in eliminating the United States embargo against Vietnam. Based on the demand that foreign companies are willing to invest in Vietnam, policies towards economic connections between domestic and foreign businesses are created. Vietnam has created favourable conditions for foreign companies to operate. This created a good environment for Vietnam to expand international economic relations and more actively promote its economic integration with the region and the world. Image and position of Vietnam has been remarkably improved by foreign investors’ supports.

However, the fast and strong growth of FDI is leading to labour abuse/exploitation in terms of lower wages and long working hours. Generally business managers pay employees less than what they deserve, and not satisfy their demands. This can result in the conflict between labour and those who employ them. It can lead to strikes which damage the operation of the firms.
Environmental aspect

According to the survey of Central Institute of Economic Management (CIEM) in 2002, most of the foreign invested companies were environmental friendly. They strictly followed Vietnamese environmental standards. There was no company infringing the environmental regulations and policies. In addition, they performed even better than domestic. In particular, the survey showed that 77% of foreign invested companies have lower environmental pollution index than allowed. Remarkably 60% foreign invested companies of food processing industry installed standard equipment to handle water disposal, while this number of domestic companies is only 10%.

There are several reasons to get such positive outcomes such as management methods, government policies, and so on. Vietnam’s advantages are political stability and social security which are secured location for investing.

Although investment environment in Vietnam has been improving much, it is still slow in comparison with other countries in the region. Since the competition to attract FDI has become fiercer and fiercer, the poorer investment environment is one of the country’s most weaknesses to rival. Another reason could be the low starting point of the economy due to long period under war conditions. Before economic reforms, the scale of economy was small with poor socio-economic infrastructure; productivity was low, whereas production cost was very high. In addition, the activities to promote internal and external resources were limited.

6. Discussion

FDI inflow has grown rapidly in Vietnam over the last 20 years and has had significant effects on the economy, society, and environment. From economic aspect, it is believed to have helped the economy by strengthening its production capacity and technological innovation in industry, international market penetration, international economic integration, and also raising revenues for the State budget. The increasing share of FDI in GDP from 6.00% to 8.50% in the period from 2003 to 2008 illustrates this. However, it is noticed that FDI is creating an imbalance among industrial sectors and regions. In terms of society, FDI has created significant number of jobs, increasing labour productivity, and also improving human resources. Moreover, it also helped to enlarge foreign relationships and integrate the local and global economies actively. Regarding the environmental concerns, foreign invested companies appears to have strictly
followed the Vietnamese environmental standards and contributed to make better environment in the area.

The FDI inflow trend suggests that government policies have significant influence on the growth of FDI in Vietnam, especially through Foreign Investment Law. Of these, the decentralisation of power in taking FDI related decisions and reforming of the FDI policy regime are considered as two main factors influencing the FDI flow to Vietnam. On the other hand, it appears that the administrative formalities are complex and the process is slow. They are main constraints for foreign investors when entering Vietnamese market.

The nature of growth of FDI flow and the outcomes appear to have been influenced by the specific factors or environment in the national economy. That is, the NSI appears to have influenced the nature of FDI flow and the shape of outcomes. The NSI in Vietnam can be identified as the relatively well functioning/ strong type according to the conceptual framework employed for the study. The level of NSI components and the FDI outcomes identified are shown in Table 5.

| Table 5: Impact of NSI on FDI Outcomes: Evidence from Vietnam (Relatively Well Functioning/ Relatively Strong NSI) |
|---------------------------------------------------------------|---------------------------------------------------------------|
| **Level of NSI Components Identified in Table 1** | **FDI Outcomes/ Impact Identified in Table 2** |
| 1. Attractive investment destination and opened different sectors and regions to FDI. | 1. Significant contribution to GDP growth and GDP per capita. |
| 2. Medium size domestic market and increasing per capita income. | 2. High Growth in particular regions FDI flow was fostered. Regional imbalance due to specific NSI characteristics. |
| 4. Relatively strong education system, particularly tertiary. | 4. Significant contribution to export, especially since 2003. |
| 5. Availability of low-cost skilled labour, but rigid labour regulations and mobility. | 5. Significant contribution to industrial output and industrial value-added. |
| 6. Encouragement and incentives for linkages between foreign and domestic firms, universities, and R&D institutions. | 6. Significant contribution towards managerial, marketing skills, and limited technology transfers. |
| 7. Effort to foster R&D by foreign and domestic firms, universities and network of public labs. | 7. It appears that FDI has forced domestic enterprises to adopt to change in specific sectors. |
| 8. Diversified industrial sectors. | 8. Positive environmental outcomes |
| 9. Weak IPR regime, but being strengthened. | 9. Significant contribution to State budget |
| 10. Capability to set, monitor, review and change policy to suit developmental goals. | 10. Not strong; but continue to build such capability. |
Table 5 illustrates the specific strength/weakness of a specific NSI component and also shows the impact or outcomes of FDI inflow in Vietnam. This suggests that the nature of NSI components and the inter-relationship among them could influence the nature of FDI outcomes in a particular economy. In other words, the nature of growth of FDI inflow and the shape of outcomes could be significantly influenced by the national context, that is, innovation system.

7. Conclusions

We set out to explore the possible relationship between the characteristics of the NSI and their impact on FDI outcomes using the case of Vietnam and employing descriptive data. We adapted a NSI-FDI conceptual framework from Baskaran and Mammo (2009) that proposed three types of NSIs – strong, relatively strong, and weak and corresponding FDI outcomes – high end, medium or average end, and low end. Although we have used qualitative and descriptive data, we have shown that differences in the characteristics of NSI can lead to different FDI outcomes. The FDI outcomes in Vietnam, which has a relatively well functioning/relatively strong NSI, have been mixed and at the medium or average level which included significant contribution to GDP, significant exports, some technology transfer, significant capital formation, and significant domestic linkages and skills development.

To generalise, our study on Vietnam suggests that the nature and characteristics of a specific NSI can impact on how effectively the FDI flows and how it can be transformed into tangible economic benefits. Despite the limitations of the descriptive data our paper has shown that the nature and characteristic of the NSI can impact on the nature of FDI flows to a country and also can shape the outcomes, other things being equal. Therefore, it is important particularly for developing countries to build systematically their NSI in order to both attract quality FDI and to achieve better outcomes.

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