Industrialization in Malaysia: Changing role of Government and Foreign Firms

by

Bethuel Kinyanjui Kinuthia

Abstract

This paper examines the changing role of government and foreign firms in Malaysia's industrialization process. Economists have held different views of the role of government in industrialization. Some believed that the developing world was full of market failures and the only way in which poor countries could escape from their poverty traps was through the forceful government intervention. Others opposed to this view argue that the government failure was by far the bigger evil and that it should allow the market to steer the economy. Reality has been different from expectation from either side. From a country dependent on agriculture and primary commodities in the sixties, Malaysia has today become an export-driven economy spurred by high technology, knowledge based and capital intensive industries. The market oriented economy and government policies that maintain a business environment with opportunities for growth and profits have made the country a highly competitive manufacturing and export base. Multinationals have been at the forefront in this process and working hand in hand with the government through a process known as 'hand holding'. As firms move up the value chain, their requirements change and to remain competitive in a global environment, the government has had to change its policies and approach to ensure that this objective is not compromised. Based on this evidence we conclude that for successful industrialization, developing countries will require flexible governments that facilitate the development of the private sector. This approach will generate greater benefits than would otherwise occur if developing countries were to adopt either government or market based development trajectories.

1. Introduction

Ever since Industrial Revolution from late eighteen century, economic progress and development have been closely identified with Industrialization. This thinking has continued to influence policy makers especially so in developing countries (Jomo 1993). In the last two decades East Asia re-emerged as the most dynamic region in the world economy, as it had been before the eighteen century rise of the West. Malaysia, located in South East Asia, is one of the fastest growing economies in the world and in many ways a Third World success story. From a country dependent on agriculture and primary commodities in the sixties, Malaysia has today become an export driven economy spurred on by high technology, knowledge based and capital intensive industries. The South East Asian success has been partly attributed to its ability to attract Foreign Direct Investment (FDI) and supportive government policies. Foreign manufacturing firms and governments have attracted extensive work by scholars seeking to appraise their role in industrialization.

Despite such intense interest, however, there is little consensus on their potential role. According to the classical theory, the benefits from FDI are derived through positive spillovers (Markusen and Venables 1999, Aiten, Hanson and Harrison 1997, Lensink and Morrissey 2001, Blonigen 2005). Multinational corporations (MNCs) are seen as an important source of the spillovers. They provide information relating to new technologies, new markets, new customers and management techniques for which domestic firms benefit. The classical proponents also advocate for a minimum government role in the market. Drawing from the experience of Latin American countries, proponents of dependency theory argue that relations of free trade and foreign investment with industrialized countries are the main causes of underdevelopment and exploitation of developing economies (Wilhems and Witter 1998, Dos Santos 1970) Due to the perceived exploitative nature of FDI, the dependency theory are in unison in calling for adoption of state policies that are deliberately discriminative of FDI in order to foster development of local industries and promote self reliance(Tandon 2002, Wilhelms and Witter 1998, Blumenfeld 1991). These two contending views continue to dominate the theories that explain the role of foreign capital and government in industrial development.

Although there is literature on the role of foreign capital in generating externalities and the role of government in industrial development, there are no studies that focus on the dynamism of both the foreign firms and government during the industrialization process which will be the focus of this paper. A comprehensive analysis would require an extensive study of the firms and government policies globally. Given the limitations of a paper we restrict this analysis to study Malaysia to obtain a deeper and a more informative analysis. The rest of the paper is structured as follows. In the next section we discuss the process of industrialization in phases. In section three we discuss the lessons learnt and lastly the conclusion follows.

2. Industrialization in Malaysia

Malaysia's industrial development can be classified into seven phases according to Industrial strategies adopted. The first phase was during the British colonial rule (1867-1957) which was largely limited to export of agricultural products and minerals mainly rubber and tin. The period immediately after independence (1957-1969) is the second phase largely dominated by the Import Substitution Industrialization strategy (ISI). Export Oriented Industrialization strategy (EOI) was introduced in 1970 until 1980, followed by the second round of ISI from 1981 up to 1986, an constitute the third and fourth phase respectively. The fifth phase marked the return to EOI in 1987 till 1996. The Asian crisis and the recovery period constitute another phase from 1997 up until 2005. We conclude by discussing the final phase where the Malaysian economy hopes to move towards global competitiveness from 2006 and beyond. We discuss the phases briefly in the next section.

2.1 Situation before Independence

Before independence in Malaysia, foreign capital had played a major mainly in the agricultural and mining sectors. Tin and rubber were the main pillars of the economy. The government used the revenue generated from mainly tin and rubber to develop infrastructure which would later be crucial in the development of the manufacturing sector. With high economic growth there was a demand for manufactured goods and foreign firms were at the forefront subcontracting to the Chinese entrepreneurs. There were positive spillover effects flowing from the foreign firms to the local firms as they adopted foreign technology and accessed external markets. It was the increasing competition from the synthetic rubber industry, the depletion of tin deposits and declining primary commodity prices that necessitated the decrease in the reliance of rubber paving way for economic diversification.

Since the late nineteenth century, Malaysia has been a major supplier of primary products to the industrialized countries; tin, rubber, palm oil, timber, oil, liquified natural gas, etc. It is the Industrial evolution of the West, with a great demand for raw materials as well as food stuffs for their growing population that led to Malaysia as well as other underdeveloped countries to become critical in meeting this demand. What was lacking in these countries was an adequate supply of capital and wage labour. In both aspects the deficiency was supplied largely from foreign sources. The commercial importance of Malaysia was enhanced by its strategic position athwart the seaborne trade routes from the Indian Ocean to East Asia. Merchants from both these regions, Arabs, Indians and Chinese regularly visited. Over the years there was an increased migration of Chinese attracted by the opportunities in trade and as a wage labour force for the burgeoning production of export commodities. The indigenous people also engaged in commercial production (rice, tin), but remained basically within a subsistence economy and were reluctant to offer themselves as permanent wage labour (Drabble 2000: 149-177).

Before independence in 1957, tin and rubber in particular were the main exports commodities in Malaysia .They both accounted for 85 percent of export earnings and 48 percent of Gross Domestic Product (GDP). Tin output grew from 6 thousand tons in 1871, reaching a peak of 88 thousand tons in 1946 before falling to 59 thousand tons in 1957. Rubber also grew from 400 tons in 1906, increasing to 698 thousand tons in 1947 before falling to 663 tons in 1957(Rasiah 1993:55). At the start of the nineteenth and twentieth Century, tin mining has largely been in the hands of the Chinese. Direct Western interest in tin mining only emerged after the colonial government had restored sufficient law and order in Malaysia due to the existing feud between the Chinese and the Malay rules. This security establishment under British colonialism was instrumental in drawing FDI into mining although these efforts were not very successful. FDI later established a dominants position in output growth in tin through the use of superior dredging technology, not withstanding favourable access to mining lands (Drabble 2000: 107-117).

The main success was in rubber which begun as part of Western experimentation (Drabble 2000:108). The cultivation of rubber-yielding trees became commercially attractive as a raw material for new industries in the West, notably for tires for the booming automobile industry especially in the U.S. The demand for rubber was so high to the point that its demand quickly surpassed tin as Malaysia's main export. FDI was the main force behind the growth of rubber cultivation, not withstanding the subsequent restrictions imposed on smallholders. The relatively simple cultivation technology led to its rapid absorption by local producers. FDI also played an important role market expansion for the local producers and the main Western investors in tin and rubber were the British, Americans, French and Dutch. FDI became so strong in Malaysia such that in the 1950s there were 958 foreign companies in the federation (Rasiah 1993: 50-53).

Although other primary goods e.g palm oil, timber and pine apples, later become important it was the revenue from tin and rubber that was used to generate fiscal linkages by the colonial government in Malaysia. The colonial state used this revenue to finance infrastructural development; Railway lines, roads and ports (See table 1) and Malaysia's infrastructure was generally more developed than in almost any other British colony (Jomo and Rock 1998).

Table 1 Malaysia: Development Plans, 1947-63

	Planned Sectoral allocation (Per Cent)		
Malaya	Economic Projects	Infrastructure	Social Services
Draft Development plan(1950-5)			
Initial	10.3	63.8	25.7
Revised	18.5	72.3	9.2
1st Malaya Plan (1956-60)	24.5	46.1	18.1
2ns Malaya Plan (1961-5)	23.4	47.9	17

Source: Extracted from Drabble 2000: 162

This expansion in infrastructure 'subsidized' the manufacturing growth as it bore relatively little taxes during the colonial period (Rasiah 1993:53). Fiscal linkages also expanded in education and health and with a steady growth of Malaysian economy , there was sufficient demand generated to stimulate the deployment of Western firms in Malaysia. The colonial government emphasized mainly export oriented raw materials production and British manufactured imports. As a result the local industry was largely confined to processing raw materials for export and producing certain items for local consumption, especially if favoured by preservation and transport cost consideration (Jomo and Edward, 1993).

The development of domestic industry was largely under *laissez fair* conditions. However the colonial government did promote manufacturing but without significant subsidies or protection and only in rural area industries. Most of the industries established then utilised local raw materials in Malaya mainly rubber than tin. Available evidence suggest that tin smelting, engineering, light consumption goods and rubber, pineapple, copra oil, palm oil and other primary commodities formed the main planks of manufacturing until 1914 (Rasiah 1993: 56). Local production of rubber products increased due to the promotional efforts of the Rubber Growers Association which sought ways to check falling demand due to the world depression (Rasiah 1993: 59). The Rural Industrial Development Authority was formed in

July 1950 to promote rural industry and welfare of the smallholders which was largely not a success (Rasiah 1993:67).

Output foot wear, soles and heels, sheeting, matting, foam rubber, rubber compounds, tubing, hose and miscellaneous products and tyres grew substantially in the 1950s. Production of foot wear, tyres and tubes in Malaysia grew substantially to enable exports even as production of other consumer goods expanded (Rasiah 1993:56). By 1957, Malaysia was already exporting food, beverages and tobacco. Rising demand for housing boosted the demand for cement and large scale wood processing. Manufacturing output grew by 15.3 percent per annum in the period 1955-1957 and its contribution to GDP was only 8 percent (Rasiah 1993:61). The absence of state subsidies and protection discouraged the growth of the large manufacturing enterprises and firms in Malaysia were small; averagely employing 20 workers while the majority employing less than 10 workers. They accounted for 6.4 percent of employment in Malaysia (World Bank 1955:422). FDI was instrumental in the development of the manufacturing sector and positive spillover effects were already flowing to the local firms as well as market outlets in the emergence of the modern manufacturing sector in Malaysia. There was already a substantial level of technology spillover from foreign firms to the local firms. In addition to employee transfers, Western firms subcontracted engineering and construction work to local Chinese firms.

However through the 1950s, the primary commodity sector was facing problems in the international market and demand for primary products from Malaysia became stagnant. The external trade balance deteriorated from the middle of 1950s after the ‘Korean War Boom’. Technological innovations in the developed countries which had previously imported rubber and tin from Malaysia, led to the production of substitute commodities for primary products such as synthetic rubber, causing serious effects on Malaysian economy whose foreign exchange was dependent on tin and rubber due to reduced prices and low demand. This necessitated the decrease in the reliance of tin and rubber. However unlike the Latin American countries, the instability in prices did not lead Malaysia to diversify the economy since its balance of payment account was in surplus, and the Malaysian government was not facing the exchange constraints (Alavi 1996). In addition it is important to note that although the agriculture was important in Malaysian development, it had not reached a ‘turning point’ at which it could provide a powerful stimulus to Malaysian Industrialization through the supply of raw materials and a source of effective demand for the products of industry (Drabble 2000:233) and therefore was not the reason for diversification.

It was the future gloomy forecasts of the economy and the move towards political independence that led to a change in the development policy. The decline in rubber prices and the anticipation of the inevitable exhaustion of tin deposits made the diversification of the economy imperative (Jomo and Rock 1998). A World Bank mission was sent to Malaysia in 1955 to access its economic future, which reported the inability of tin and rubber to sustain employment due to population increases in future. This team recommended the diversification into other forms of export agriculture into manufacturing. It particularly recommended Import Substitution Industrialization strategy through tariff protection, encouraging local entrepreneurship, attracting foreign capital, offering new tax and other incentives, provision of industrial estates facilities and infrastructural development. This recommendation was adopted by the government (Alavi 1996). The political independence in 1957 also marked the turning point for significant structural changes in the economy due to serious government intervention through various industrial policies to promote the industrial sector. By 1955, there were already signs of restructuring of the economy with the share of agriculture beginning to decline (Drabble 2000: 176).

2.2 Situation after Independence

After independence the government embarked on the import substitution strategy aimed at developing industries largely in a protected domestic market aimed at producing goods that had been previously imported. During this period the government pursed an Industrial policy that was aimed at protection of domestic industries while at the same time providing incentives to attract foreign firms. Most of the foreign firms mainly involved with basic activities of assembly of some of the products they had been marketing previously. The fastest growing industries were textiles, electrical machinery and motor vehicle assembly. The government also formed institutions whose mandate was to promote and monitor industrialisation in manufacturing. By 1970, the ISI policy had led to average consumer prices in Malaysia to rise above 25 percent of world market prices and the infant industries did not show signs of growing up. It therefore became apparent that ISI policy could not be successful beyond this point which prompted a change in the development strategy .

Industrialization in Malaysia is considered by many scholars' e.g Jomo and Rock (1998) and Alavi (1993) among others, to have begun after independence, although as we have seen from the discussion above, the manufacturing sector had already begun developing way before independence. After independence in 1957, the new government embarked on the Import Substitution Industrialization strategy (ISI) following the recommendation of experts. This strategy sought to encourage foreign investors to set up production, assembly, and packaging plants in the country to supply finished goods previously imported from abroad. What existed was very largely promotional effort geared to the provision of an investment climate favourable to the private sector and more especially foreign private enterprise (Wheelwright 1963: 69). To promote such efforts the government directly and indirectly subsidised the establishments of new factories and protected the domestic market (Jomo 1993). Through this industrial policy the government focused on the development of infrastructure and the rural sector, while industrialization was left to the private sector a decision that was largely a political compromise between the parties making up the ruling alliance (Kuruvilla, 1995). The state restricted itself to the creation of a favourable climate to attract foreign investment in import substitution industries. The state enacted the Pioneer Industries (Relief from Income Tax) Ordinance (PIO) of 1958, and also created the Malaysian Industrial Development Finance Corporation, which was responsible for providing investment capital and for the development of industrial estates.

The PIO granted two year income tax exemption to new manufacturing establishments classified as pioneer. This incentive was extended to three years for fixed capital investment between RM100,000-RM250,000, and five years for fixed capital investment exceeding RM250,000 (Rasiah 1993:76). These incentives among others attracted labour intensive manufacturing industries for domestic market (Ritchie 2004). Tax incentives had been offered to pioneering industries since 1958 but from the beginning of the 1960s, with the establishment of the Tariff Advisory Board, import-substituting was encouraged by providing protection through import duty and quotas which was considered to have been the greatest incentive (Jomo, 1993) and that tax concessions merely made the protection even more valuable. This view was in contrast to Lim’s (1973: 255) who claimed that protective tariffs were not used as a major instrument of industrial development for the period 1959-1968. It is estimated that the weighted average effective rate of protection rose from 25 percent to 65 percent by the end of the decade(table 2), although this was considered small compared to other developing countries but were equivalent to very large subsidies.

Table 2 Protectionism in Malaysia (1962-1982)

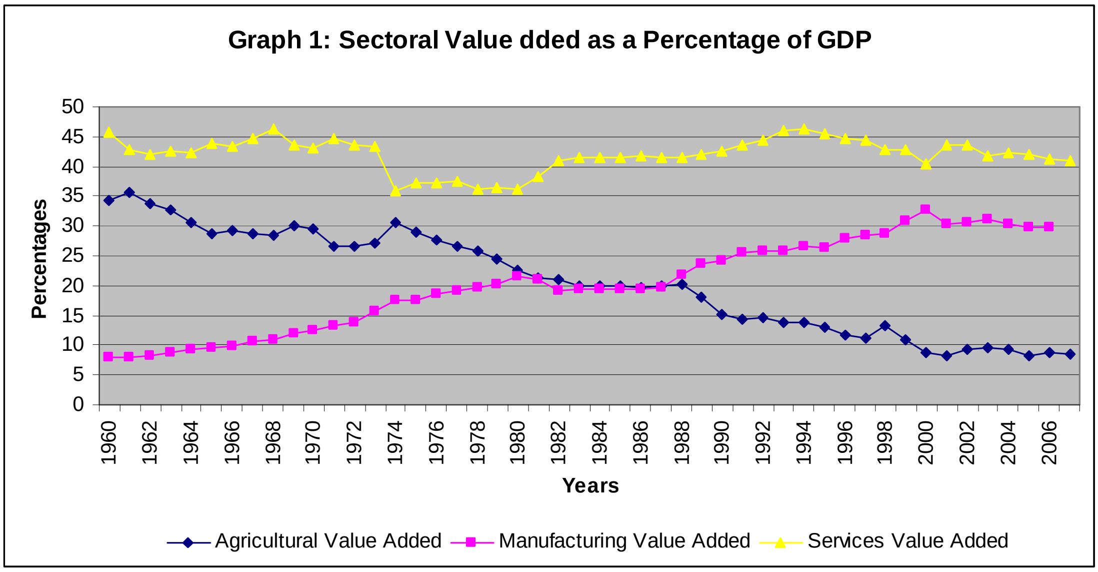
Year	Effective rate of Protection in Manufacturing Sector (%)
1962	25
1966	50
1969	65
1972	70
1979	24
1982	23

Source: Jomo (1993)

Thus subsidies given by the structure of protection to manufacturing companies in Malaysia have been substantial (Jomo1993). There were also non financial incentives which included severe control on labour organizations: unions were not allowed in pioneering industries e.g textiles and electronics (Rasiah and Shari 2001).

However, contrary to the proponents of infant industry protection, the imposition of tariffs was not part of a comprehensive strategy of spawning local firms. The main impetuous for manufacturing came from foreign firms, that expanded their operations to benefit from the protected domestic market many of which merely carried out minor assembly of products, which they had only been marketing previously Industrial investments were quite responsive to government efforts. British investors in particular seeking to maintain and increase their colonial market share made full use of the incentives and especially so after the introduction of the Tariff Advisory Board, the creation of the Federal Industrial Development Authority (FIDA) which later became Malaysia Industrial Development Authority (MIDA) aimed at spearheading the promotion and monitoring of manufacturing growth and with enactment of the Investment Incentives Act in 1963, 1966 and 1968 respectively (Rasiah 1993:76).

The ISI did in some way contribute to the development process in Malaysia. It helped diversify the economy, reduce excessive dependency on imported consumer goods, utilize some domestic natural resources, created opportunities for employment and contributed to economic growth (Alavi 1993). The manufacturing sector grew steadily from 8 to 13 percent from the 60s to 1970 (Graph 1). In addition the pioneer industries program achieved its objective with the number of firms granted pioneer status rising from 18 in 1959 to 246 in 1971. By 1968, these firms contributed to about one third of value added but in certain industries e.g textiles, petroleum products, metals and electrical goods, the proportion was three quarters or more (Drabble 2000:235). However, it was not long before the ISI was faulted. The initial role of FIDA did not bring the quick results the government wanted and the ISI implementation was poor (Rasiah 1993: 77). The initial impetuous to industrial growth soon petered out as the frontiers of the domestic market were reached. In addition the heavy importation of capital and intermediate goods used in the production of final consumer goods did not help alleviate the balance of payment problems but instead aggravated it. The linkages with the domestic industry were limited and the much needed reduction in unemployment did not take place because of low labour absorptive capacity of the manufacturing sector and the much anticipated spillovers of surplus production into the export market did not take place (Alavi 1993, Kind and Ismail 2001).



Source: World Development Indicator, 2008

The high profits earned as a result of protection, caused companies to lobby Malaysian politicians and to offer them directorships on boards of subsidiaries of companies. As a result rent seeking became widespread in Malaysia (Jomo1993). The local companies did not have an incentive to produce for exports, the ISI tended to be limited on final consumer goods with the protection being higher on those goods than on the intermediate manufacturers. It's foreign firms that benefited from ISI and by 1970 more than three fifth of the manufacturing companies were foreign owned who enjoyed high profits and repatriated them out of the country. There was also regional concentration of industries causing large manufacturing plants to be concentrated in urban centres and the smaller ones were pushed out and unprofitable (Jomo 1993).

It’s the limited participation of ethnic Malays with a share of about 1.5 to 2 percent (Kuruvilla, 1995) and mainly concentrated in unskilled jobs, (in comparison to Chinese 22.8 percent and Indians 10.9 percent, foreign interests accounted for 62.1 percent) that made it apparent that the ISI approach succeeded in strengthening the economic position of the Chinese and the Indians (Ritchie,2004). This resulted in much anger and eventually to the ethnic riots in 1969 and massive reversal in election results. The government was then forced to review its development strategies.

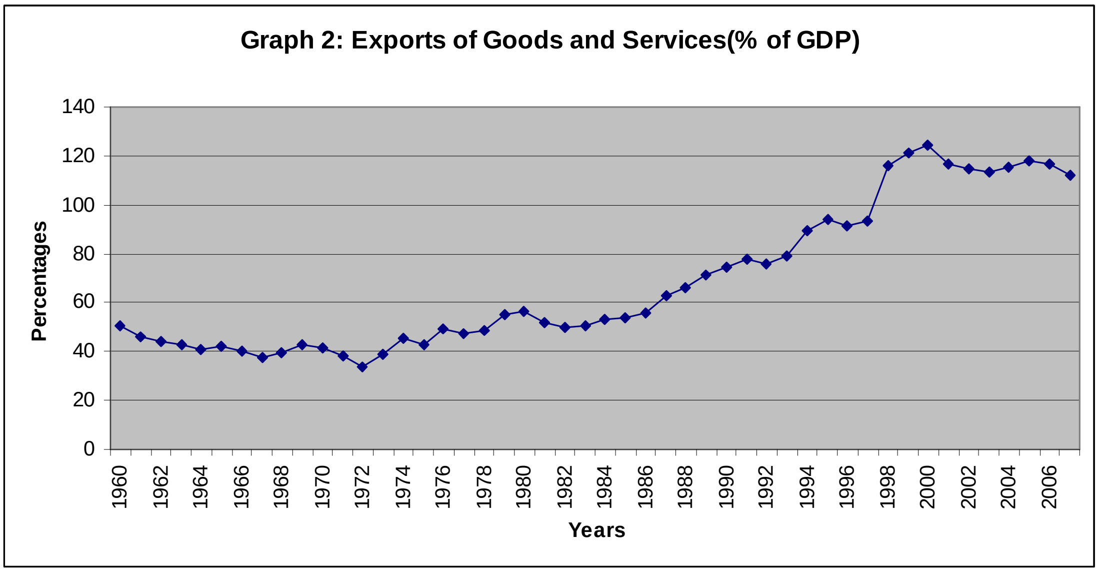
2.3 Export-Led Industrialization

The ethic riot and high unemployment that existed in the late 1960s coupled with reduced revenues from rubber and tin, forced the government to consider its development strategy. To do so the government launched a new agenda aimed at diversifying the economy through developing the manufacturing sector and employing the Export Oriented Strategy. Foreign firms were the preferred vehicle due to political reasons. At the same time the government did not abandon the ISI and established new entities and legislation to support the indigenous Malays. By end of 1970s this strategy was largely a success but not without concerns. There were largely no linkages with the rest of the economy in as much as exports of manufactured goods had grown tremendously.

By the end of the 1960s the limitations of industrialization based on ISI were becoming clear, and there was also a demonstration effect from East Asian ‘Tiger’ economies which were pursuing export-oriented industrialization. In Malaysia this began with enactment of the Investment Incentives Act in 1968 which widened the range of industries eligible for inducements such as deductions for overseas promotional campaigns, exemption from payroll tax for companies exporting more than 20 percent of total production and so on (Drabble 2000:237). The government in response to the social tension of 1969 launched the New Economic Policy (NEP) which coincided with the change in the direction of the industrial policy from ISI to export-oriented Industrialization strategy (EOI) a switch that gave fresh impetuous to industrial growth (Jomo and Edwards 1993). This new emphasis was supported by the NEP whose primary objective was to eradicate poverty irrespective of race and to eliminate the identification of occupation with race and ownership of assets. Manufacturing was considered as a strategic sector for the achievement of these objectives and therefore the industrialization strategy during the Second and subsequent Malaysia Plan periods were aimed at addressing the objectives laid down in the NEP.

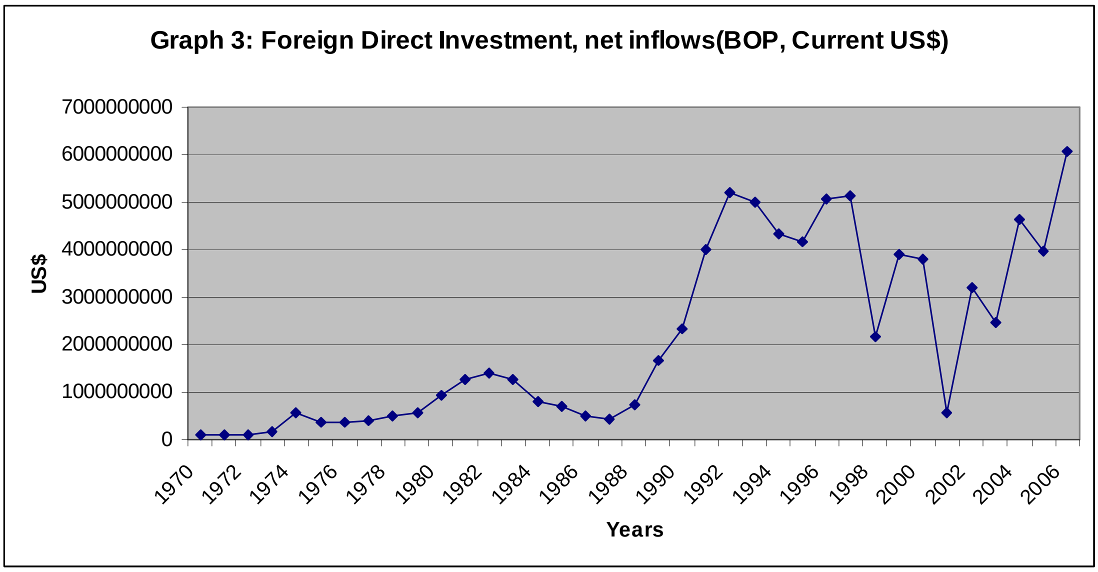
By early 1970s government efforts to encourage export oriented industries were in full swing. Free Trade Zones(FTZs) and Licensed Manufacturing Warehouses (LMWs) were established to facilitate and encourage Malaysian manufacturing production for export using imported equipment and materials based on targeting foreign firms. The existing infrastructure, political stability, large supply of trainable labour force, a friendly government and financial incentives were important factors that led to the foreign firms relocating their operations in Malaysia (Rasiah 1993:79). Such export industrialization strategy was consistent with the emerging new international division of labour, with transnational industries relocating various productions, assembly and testing processes to secure locations offering reduced wages and other production costs.

In as much as the Malaysian government had laid down the ground work to attract FDI, it is important to recognise the role played by MIDA. In the early 1970s after its incorporation in 1967, it established overseas offices whose main aim was to target potential FDI and encourage them to invest in Malaysia. It acted as the first contact for investors who intended to set up projects in the manufacturing and its related support services sectors in Malaysia. MIDA aggressively executed its mandate, and working with the various states in Malaysia was able to convince firms to relocate to Malaysia. This led to the first influx of export oriented firms (see graph 2&3).



Source: WDI 2008

At a time when semi conductor assembly boom in developing countries was reaching its peak and Singapore was trying to upgrade from labour intensive assembly to more complex activities, MIDA spotted the opportunity and made concerted efforts to target electronic industries MNCs in the USA. However in as much as this could have been the case, it does appear that MIDA purposefully targeted FDI in sectors that had the potential for growth and it so happened that electronics was among them (Lall 1995).



Source: WDI 2008

One notable case is Penang, the second smallest state in Malaysia, which had initially prospered as a free port, but the free port status was affected in the mid 1960s when the centre of economic and administrative developments shifted to Kelang Valley making it to under go a period of economic stagnation.With the launch of NEP marked the advent of the EPZ in Penang, that was set up through the initiative of Tun, Dr. Lim with the support of Tun Abdul Razak , the second Prime Minister in Malaysia. Through establishment of the Penang Development Corporation (PDC) in 1969, which worked as the Penang's principle agency of the State, to coordinate growth in accordance to the States master plan, was pioneered the establishment of Malaysia's first FTZ at Sungai Kluang in Bayan Lepas. This initiative attracted eight pioneers who have been in Malaysia ever since which include Clarion (M) Sdn Bnd, National Semiconductors Electronics Sdn Bhd, Robert Bosch (M) Sdn Bhd, Microsystems International (M) Sdn Bhd, Litronix(M) Sdn Bnd and ITT(M) Sdn Bhd. Their magnetic pull resulted to an influx of other new multinationals. To add momentum to the drive in industrial development, PDC sent trade missions overseas to canvass for investment in developed countries like the United States of America, Europe, Australia and Japan where the cost of labour was high (PDC 1990).

The development of export processing industries in Malaysia was so rapid and two main types of export oriented industries developed. Firstly resource based industries which were involved in increased processing of older (rubber and tin) and newer primary commodities (palm oil and timber) for export. The processing of these natural resource based exports continued to grow for sometime but growth was constrained by increase in production costs, tariffs and other trade barriers from government in industrialised countries who preferred importing raw materials. It is non resource based exports that has been by far more important since the 1970s in terms of growth and employment. This growth was concentrated in the EPZs and LMWs (Jomo 1993). The development of FTZ in Malaysia was very important both in absolute terms and as a proportion of overall total manufacturing activity which makes it unique among developing countries (Warr 1987:30)[1].

In order for the government to prevent future re emergence of ethnic tension, it had to ensure that the growth now generated was distributed in line with the NEP objectives. The State as a result for the first time became a significant actor in ISI investment and therefore the ISI was not abolished with the introduction of the EOI policy. State intervention was justified on the grounds that the Malays did not possess the wealth or the entrepreneurial ability to start new businesses. The State went a step further and enacted the Industrial Coordination Act (ICA) of

[1] Cited by Alavi (1996), Jomo and Edwards (1993) and Lall (1995).

1976, which gave the Ministry of Trade and Industry (MITI) complete power to direct and control the development of the industry, including powers to issues licenses to industries based on their compliance to NEP goals (Kuruvilla 1995). The ICA had a debilitating effect on non –malay investment which fell dramatically in the second half of the 1970s (Rasiah 1993:79).

The involvement of government in ISI investment generated fears of nationalization which resulted in a temporal reduction in private and foreign direct investment (See graph 3). As a result private sector investment fell drastically from expected levels of 12 and 14 percent to about 3 percent of GDP in 1976. This shortfall and the utilization of government funds to buy shares (undersubscribed by the Malay business community for which they were reserved) resulted in major resource crunch, which led to borrowing from international banks raising foreign debt from 8.45 percent in 1975 to almost 11 percent by 1967-77. This resource crunch led the government to articulate a mixed policy. The government decided to increase its involvement in the development of heavy ISI mainly because there was a fear that the 30 percent ownership of corporate wealth by the Malays by 1990 was likely not to be achieved since by 1978 the Malay participation had only reached 12.4 percent (Kuruvilla 1995).

In addition to ISI the government was to encourage private and foreign direct investment during the period 1977-1980 through policies emphasising investment incentives, the development of infrastructural facilities, numerous taxes, labour and other incentives. Electronics and textile industries were specifically targeted and most of these foreign firms were labour intensive. Initial entry in the electronics industry involved manual assembly of semi conductors. It was followed after some time by similar assembly in audio and other electric and electronic products. Foreign companies manufacturing for export were exempted from the ICA policies on Malay share ownership and labor laws that might have discouraged foreign investment were relaxed or went un enforced. Unions were excluded from key industries and the export sector (Lall, 1995). This new phase saw the beginning of massive foreign investment in the electronic sector by the US and Japan companies (Kuruvilla 1995). Hence low wages and a favourable investment climate thus accounted for Malaysia’s early export growth.

By the end of 1970s foreign firms contributed a significant proportion of fixed assets, output and employment (Rasiah 1993:80). Employment expansion was significant and absorbed labour surplus but was mostly in low wage employment (Kanapathy 2000, Simpson 2005). Although ethnic based intervention increased after the 1970s, it had little effect on foreign investment, as export processing foreign firms continued to enjoy total equity ownership. The government through introduction of incentives subsidised these firms. The administration of FTZs and LMWs, however introduced bureaucratic restrictions that prevented the development of links between them and firms operating in the principle custom areas. Firms applying for financial incentives generally had to meet high levels of exports and imports (Rasiah 1993: 79).

On the other hand EOI did exhibit several concerns. It had had little effects on net foreign savings, which has been a major criticism of the ISI strategy. Also in as much manufacturing employment had managed to increase significantly during this period the wages within the FTZs were very low, in fact by 1978 the average real wage was lower than in 1963. There was very little technological transfer or development of skills in the industries established in the EPZs and few linkages with the rest of the economy (Jomo 1993). The degree of the linkages between FTZ firms and the domestic economy, through the purchase of domestically produced raw materials and capital equipment had been disappointing (Warr 1987)[2]. The export of manufactured goods was also limited to a narrow range of products and there was minimum development in the manufacturing sector (Lall 1995). These concerns caused the government to reconsider its development policy which ushered in the second round of ISI in Malaysia.

2.4 Second Round of ISI Industrialization

The period 1981-1986 was very dynamic with the government embarking on heavy investment industrialization strategy with a view of enhancing linkages between multinationals and local industries. The recession and oil shock in the 1980s caused slow growth and high unemployment. The resilience of the manufacturing sector and a favourable economic climate in Malaysia assisted in revamping the economy. There was also a renewed focus on the role of SMEs in development especially in job creation and industrial deepening.
The government was very careful not to lose foreign direct investment and during this period put in place measures to curb outflow of capital at the same time favourable domestic and international environment enables foreign firms to relocate in big numbers to Malaysia. The ISI strategy did not yield the desired results due to high investment outlay leading to extensive external borrowing which was not sustainable. The severe 1985 recession made the government rethink this strategy ushering in a new era focusing on the Export Oriented Strategy.

[2] Warr (1987) as cited in Jomo (1993).

In order to redress the problems of EOI in the 1970s a second round of ISI based on heavy industries was launched. This strategy was aimed at deepening and diversifying the industrial structure through the development of more local linkages, small and medium enterprises owned by the indigenous (Bumiputra) and indigenous local capabilities. The export oriented industries were beginning to face competition and were looking for new avenues to source for local materials, including labour since the wages had already begun to rise. This realization was as a result of a world recession in 1980 which caused adverse effects on the Malaysian exports. The exports earnings which were doing well in the 1970s were now threatened and prices of most major export items declines sharply and the Malaysian ringgit appreciated steadily in real terms posing serious problems on the export of manufactured goods. During this time imports continued to grow, especially capital goods causing balance of payment problems to Malaysia for the first time (Alavi 1995).

With a substantial EOI sector, superimposed on the ISI which has been promoted during the 1960s, the government in 1980, through Dr Mahathir Mohammed, who was the minister in charge of industries, announced a heavy industries policy geared to achieving the twin objective of accelerating industrial growth and improving the economic position of the Malays. The heavy industries targeted under this new program included the national car project, motor cycle engine plants, iron and steel mills, cement factories, a petrol refining and a petrol chemical project, and a pulp and paper mill (Kanapathy, 2000). The government established the Heavy Industries Corporation of Malaysia (HICOM) in 1980, a public sector company to go into partnership with foreign companies in setting up industries in the areas identified above. These industries were expected to 'strengthen the foundation of the manufacturing sector…..by providing strong forward and backward linkages for the development of other industries' (Athukorala and Menon, 1996).

The ISI industrialization had been modelled after South Korea, which had vigorously promoted heavy industries since 1972-1979. This model was similar to the 'Look East Policy' that the Malaysian Government adopted, under the leadership of Prime Minister Mahathir Mohammed (Jomo 1993). This policy appeared to have initially appeared as a campaign to promote more effective modes of labour and discipline associated with the Japanese but it was subsequently seen as a fairly wide ranging series of initiatives to become a 'newly industrialise country' by emulating the Japanese and the South Korean 'economic miracles'. The implementation of this program led to public development expenditure for heavy industries rising significantly from RM 0.33 Billion in 1981-1985 to RM 2.33 Billion between 1986 and 1990, mostly financed through external borrowing leading to a rise in total foreign debt from about $15.4 billion in 1981 to $50.7 billion in 1986, the latter being at 76 percent of

GNP far above the average for less developed countries of 47.9 percent (Simpson 2005,Drabble 2000:261) .The external borrowing led to an appreciation in the real exchange rate making the manufacturing sector less competitive resulting in slow growth.

Apart from enormous injection of public funds, the targeted industries were heavily protected through tariffs, import restrictions and licensing requirements. For instance the effective rate of protection for the iron and steel industry rose from 28 percent in 1969 to 188 percent in 1987. The level of protection for motor vehicles assembly and cement industries was so high that these industries operated at negative value added at free trade prices. In other words they would not have survived without protection[3]. In addition, the state also made efforts to enable the motor plant to purchase components and parts from FTZ firms (Rasiah 1993:81). The state also begun to encourage foreign firms particularly those enjoying financial incentives to integrate production vertically and expand local sourcing. It extended further financial incentives to foreign firms through the Promotion of Investment Act (PIA) in 1986. With this the government provided Investment Tax Allowance (ITA) to firms whose pioneer status had expired, and gave several generous benefits for export promotion, research and development and training (Rasiah 1993:82). However these policies were not properly coordinated (Rasiah 1993:81, Jomo 1993).

The world global recession in the early 1980s and the second oil shock worsened the situation as the government embarked on counter cyclical expenditure in the hope of stimulating the economy. The heavy development expenditure caused a huge rise in the budget deficit and due to uncertainty the interest rates rose and servicing the debts become difficult. The second external shock led to a decline in world prices, and in turn decreases in prices of important export commodities in the mid 1980s. Oil prices fell by 50 percent, rubber prices by 7 percent, tin prices by 47 percent and palm oil prices by 63 percent (Emsely, 1996: 78)[4]. By this time Malaysian manufactured exports had grown enough to offset the declines in primary commodities (Crouch, 2001) although manufactured imports also increased substantially (Jomo 1993).

Foreign firms within the EPZ continued to dominate the manufacturing exports with firms in electrical and electronic products taking the lead having accounted for 15 percent of manufactured output in 1981 and 23 percent in 1986, but at least half of the total manufactured exports since 1981(Simpson 2005). The recession of 1985 believed to have been partly caused by a reduction in the global semiconductor industry contributed partly to a

[3] Edwards et al. 1990 as cited by Kanapathy 2000.

loss in Malaysia's competitiveness leading to a drop in manufacturing exports compared to 1984. During the period 1984-1986, the manufacturing sector particularly the labour intensive such as electronics and textile industries, laid off workers about 100,000 and this constituted a significant proportion of Malaysia's working population of about 5.95 million in 1985. The GDP also contracted by 1 percent in 1985, the first negative growth rate in the country's modern economic history (Onn 1990).

The recession was accompanied by an outflow in capital causing the exchange rate to fall sharply in 1986. This depreciation in the exchange rate led to a reduction to the cost of production in Malaysia as real wage costs declined over the mid 1980s with the rise in unemployment as well as new labour policies and laws weakening organised labour's bargaining power and enhancing labor flexibility. In addition this depreciation in exchange rate coincided with the relaxation of the guidelines imposed under the ICA and a reinforcement of tax concession under PIA (Jomo 1993). These factors made Malaysia a very attractive place for investment and combined with external market conditions resulted to an resurgence of export oriented foreign firms (see graph 3). This also led to an improvement in Malaysia's Balance of payment position.

The recession was also a blessing in disguise as unemployment in 1985 soared to 7.6 percent. This prompted more people to start their own businesses and initiate self employment. The establishment of Small and Medium Enterprises (SMEs) was seen as important not only to address unemployment but also to deepen the industry and the government in 1985 Budget, granted them a special rebate of 5 percent of adjusted income for 5 years and another 5 percent if the manufacturing company complied with the NEP requirements. Under the PIA of 1986, small businesses received all the incentives previously enjoyed by only the big firms. With strong emphasis from the government to achieve revitalization and industrial deepening, the number of loans allocated for the SMEs in 1985, increased considerably. The importance of SMEs in Malaysia had been stressed earlier in 1982 in a World Bank report. By 1985 SMEs in Malaysia accounted for 75 percent of the total number of firms in the manufacturing sector, 15,068, contributed to about RM 1.02 billon in fixed assets and generated about 54.3 percent (124,000) job opportunities in 1985(Onn 1990).

Based on the challenges the manufacturing sector was facing in the 1970s the government was justified in establishing heavy industries. Unfortunately this strategy did not yield the desired results. The Malaysian government begun to experience stiff international competition

---

[4] As cited by Simpson (2005)

and required heavy protection without which most of the industries could have survived. The government argued that since the local Chinese that dominated manufacturing industry had neither the interest nor the technology to invest in projects that offered uncertain returns, it turned to foreign investors to establish joint ventures. As a consequence this heavy industrialization strategy became overly dependant on foreign partners, contractors and consultants (Simpson 2005). The recourse to external funds helped public enterprises to escape the surveillance and discipline that could have been imposed by the federal government had there been a greater reliance on the Treasury as a source of funds (World Bank 1989:14).[5]

At the same time the performance of the heavy industrialization program was weak. Being capital intensive, it was expected to have long gestation and payback periods, but even relative to these expectations, its performance was disappointing (Jomo 1993). The Stated owned industry had poor financial returns or even negative, and the lack of experience and capabilities led to prolonged teething problems (Lall 1995). The failure of ISI was due to the absence of efficient enhancing intervention by the government (Rasiah and Shari 2001). With all these weakness the government did not have a choice except to revert to EOI and this time the government established a comprehensive plan that would address the problems in the manufacturing sector.

2.5 Second Round of EOI industrialization.

During this period the government embarked on reforms aimed at addressing the challenges in the1980s. With a reorientation of the economy towards the exports and new incentives to attract foreign firms Malaysia registered tremendous growth in the 1990s. The government established new institutions as well as reconstituting existing ones to cope with the new challenges posed by high growth. Inspite of doing so problems relating to competitiveness of the local industries became pronounced and selective policies began to be employed to address this problem. Foreign firms began to upgrade their products as they moved to the higher end of the value chain to remain competitive. However this proved to be a real challenge which demanded a rethinking of the development as the country was now facing a globally competitive environment and a tight labour market.

The sluggish performance of private investment, both domestic and foreign, in industry in the early 1980s, combined with falling official revenues, led to the formation of plans specifically

[5] As cited by Jomo (1993).

focused on the manufacturing sector. The first of these major planning instruments for Malaysia as a whole was the Industrial Master Plan (IMP) of 1986. The IMP concluded that the ISI sector had not developed behind tariff protection to the level where industries were competitive internationally and that the EOI sector was still narrowly based on two major industries electronics/electrical machinery and textiles which accounted for 65 percent of manufactured exports in 1983. It was also noted that the expected spillover effects were not forthcoming as almost 90 percent of components in the semiconductors were imported, there was dependence of foreign technology and only limited amounts could be transferred, a lack of skilled workers and inadequate incentives to expand exports (Drabble 2000:257). The IMP was to last from 1986-1995 and provided a long term indicative plan for the development of specific sub-sectors, policy measures and areas of special emphasis.

The recommended policy was implemented to enhance private investment and develop a more focused policy reorientation. Twelve sub-sectors were given a high priority status. These comprised of seven resource based industries and five non resource based industries to be developed over the ten year period. The resource based industries were food processing, rubber, palm oil, wood based, chemical and petrochemical, non ferrous metal products and non metallic mineral products industries. The non resource industries were: electrical and electronics, transport equipment, machinery and engineering, ferrous metal, and textile and apparel industries (Alavi, 1996). The main focus points were a renewal of export orientation and a more liberal trade regime. Based on the IMP recommendations, fiscal incentives to promote investment were consolidated and major improvements were made to induce investments, linkages, exports, training and research and development. The list of the products to be promoted was under continuous review and a program for industrial rationalization and restructuring to enhance industrial efficiency was launched. The incentive system was tied to industries in which Malaysia had a comparative advantage and those products that were of strategic importance to the country hence the term 'priority products'(Kanapathy 2000). The government went ahead to privatise most of the state owned enterprises.

The industrial incentives were given not only through PIA and ICA alluded to earlier but also through Investment Tax Allowance(ITA) and a major revamp of the Export Credit Refinancing Facilities(ECR) among other generous incentives. The most attractive incentive was the extension of tax relief for a further 5 years for companies that incurred expenditure in fixed assets of RM 25M or more, or companies that employed more than 500 employees or more, or the companies meeting other requirements which in opinion of MITI would promote or enhance economic or technology development of the country at the end of the initial tax period of 5 years. There were also special incentives to support the development of SMEs that were deemed essential to develop industrial linkages. Foreign equity guidelines were further relaxed to make it easier for foreign investors to own up to 100 percent equity depending on export targets and other conditions (Alavi 1996, Kanapathy, 2000).

In 1987 the government also froze wage increases for 3 years aimed at consoling foreign firms which feared increases in the cost of production. At the same time MIDA was overhauled by the government to become a one stop investment shop under a new name Centre of Investment (COI) where new and potential investors could go to resolve their problems and concerns. MIDA also started to use incentives to guide FDI into higher value added activities and more technology intensive processes. Prospective investors in areas of advanced technology were also targeted. In addition MIDA introduced incentives to encourage local content and began to proactively reach out to investors across the country, to connect them to approving authorities, assist in submitting applications and to act as a mediator between investors and approving authorities in expediting approvals. MIDA was now involved in assisting firms from inception to their last day of operations in Malaysia a process that later came to be known as 'hand holding'. To do so they established offices in all the 12 states with special project officers handling firms' issues in each state (MIDA 2008).

As a result FDI responded vigorously in the latter half of 1980s mainly from Taiwan and Hong kong. Japan also continued to relocate their assembly operations in Malaysia as the Yen strengthened and induced many of their suppliers to invest with them. The manufacturing sector continued to grow surpassing all expectations becoming the leading sector in output, export growth and employment. This growth in manufacturing employment was accompanied by rapid increases in both Malay employment and female employment. By this time Malay participation was also increasing in the government sector hence the growth in industry and services coupled with NEP restructuring stipulations helped reduced identification of ethnicity with economic function and urban rural location (Jomo and Edwards 1993).

With all these changes, the Malaysian economy grew very fast averaging 6.4 percent between 1980 to 1992. The uninterrupted growth from 1986 transformed the labor market from a situation of high unemployment in mid 1980s to severe labor and skill shortages by early 1990s with a significant inflow of foreign workers (Kamapathy 2000). By 1997 foreign workers constituted 20 percent of the labour force. The significance of foreign workers assisted in moderating wage increases even though wages grew in excess of productivity. In addition skill intensity in manufacturing was almost stagnant during the period of high growth, and the level of technical and tertiary education was insufficient to meet the growing demand for skilled workers (Ritchie 2004). The shortage in skilled workers led to an high wage premiums dampening investment in skills intensive industries (World Bank 1995).

This led to the replacement of the NEP in 1990 with New Development Policy (NDP) which was considered largely a success by the government having realised its main objective of using industry as a vehicle for growth and poverty reduction and increasing Malay participation in the private sector despite its failure to achieve the targeted 30 percent Bumiputra corporate equity participation in the economy. More importantly Malaysia had become one of the most successful economies in Asia prompting the World Bank(1993) to refer to this success the ' East Asian Miracle'. The NDP was based on a more coherent and systematic analysis of the needs and capabilities of manufacturing activities. It aimed at addressing the weaknesses of the NEP with more emphasis on human capital development and the role of the private sector.

Although NDP maintained most of the components contained in the NEP, it made the application of those requirements more flexible and contingent on performance particularly export manufacturing. The redistributive priorities of the NEP gave way to developmental priorities which included increasing labour supply, boosting the level of skill of the in the local workforce, advance technology in both foreign and local firms and increase the amount of local content in foreign owned export manufacturing(Ritchie, 2004). Technology had been the weakest point in Malaysia Kanapathy(2000). This has been attributed to the failure of previous policies and incentives to encourage technology transfer but rather emphasised on increased output, employment and exports by multinationals.

Bearing this in mind the government resolved through NDP to address this anomaly through reforming and expanding public sector research and development institutions, infrastructure and introduction of a wide range of incentives for private sector development. Growing the technological capacity of the country required that firms upgraded the technological content of their products and processes. To improve the quantity and quality of local firms capable of supplying MNCs, the government through MIDA changed the investment structure in favour of MNCs that were meeting its stringent for technological requirements and sharing. In addition efforts were made to improve developmental linkages between foreign and local firms. In 1993 MIDA launched the Vendor Development Program(VDP) in which more technologically advanced firms usually MNCs were given incentives to mentor upgrading processing in local vendors, which they facilitated through guaranteed contracts, a free interchange of engineers and product specification, loans with preferential terms from local banks and ongoing technical assistance from public research institutes(Ritchie 2004).

To address the labour problem the government also established in 1993 the Human Resource Development Corporation(HRDC) to facilitate firm level training through the Human Resource Development Fund(HRDF). Firms meeting the NEP thresholds were levied 1 percent of their employees salaries which was deposited in firms specific accounts available for government approved training. This training reform became very successful and by 1997, committed training places had climbed to 533, 227 with over RM 144 million collected and RM 99 million dispersed. In 1996 the government launched Small and Medium Industries Development Corporation (SMIDEC) in recognition of the need for specialised agency to further promote the development of SMEs in the manufacturing sector through the provision of advisory services, fiscal and financial assistance, infrastructural facilities, market access among others. The industrial linkage program was now brought under SMIDEC whose main aim was to support SMEs in a globally competitive environment. It involved in skill upgrading programs all across Malaysia indicating government's recognition of SMEs (Ritchie 2004).

In 1993 the government further strengthen ties with the Industry through the establishment of the Malaysian Business Council (MBC), The Malaysia Industry-Government Group for High Technology(MIGHT), and the Malaysia Technology Development Corporation (MTDC) to promote public-private corporation for upgrading. Both MBC and MIGHT brought most of important business leaders and key government administrators and directors together in regular consultative meetings. In addition, public research institutes, such as the Malaysian Institute of Micro Electric Systems (MIMOS) and the Standard and Industrial Research Institute of Malaysia(SIRIM) were created to promote basic and early state research and development in the budding technology sector and to supply development assistance of local firms. In the same year Khazanah Holdings was formed to invest in new high tech ventures (Ritchie 2004).

By 1995, multinationals had dominated the production of exports in Malaysia unlike Taiwan and South Korea where it has been dominated by local firms. During this period Malaysia registered very impressive growths in all sectors compared to the 1980s. However the failure to develop sufficient domestic linkages in Malaysia resulted in growth of industries with high import content of capital formation and industrial output. To nurture a more robust industrial sector and retain more value added in the economy there was need to avoid FDI that had low potential for linkages with the local economy and attract FDI that is conducive to developing indigenous supply capacity. This was going to continue being a challenge to policy makers as investing MNCs are not always sympathetic to the needs of the country (MITI, 1996) Due to the global and domestic environment changing rapidly, there was need for Malaysia to change its strategy. Wages in Malaysia were escalating and the industry had to compete with low wage new comers mainly India and China which with a large domestic market were largely promoting themselves as low cost-export platforms. The internal and external challenges facing the industrial sector meant that past industrialization approaches based on large scale injection of capital to boost labour productivity were no longer viable and led to the introduction of the Second Industrial Master Plan(SIMP).

2.6 Cluster Based approach to Industrial Dynamism

With the reality of Malaysia operating in a globally competitive environment, the government did not have much of a choice but to refocus its development strategy through the Second Industrial Master plan. The new focus was Cluster based approach and key strategic sectors were identified for development. The emphasis was on value addition through increased productivity. Once again new institutions had to be established to meet this new challenge and incentives were given to multinationals that were using high technology and were willing to share with local firms. The use of selective policies has been common in Malaysia. At the same time the government embarked on infrastructure development as well as development of high skilled labour. The Asian crisis was a set back but Malaysia was able to mitigate its effects through sound macro economic policies and get back on tract. However inspite of the much efforts Malaysia was not able to meet its economic targets by 2005. The manufacturing sector had begun to show signs of decline from 2000 and debate of de industrialising began and this prompted the introduction of the third IMP to address these challenges.

Dubbed the Manufacturing ++(Plus- plus), the Second IMP, launched in 1996 was formulated at a time of widespread labour and skill shortages and increasing global competition and focused on increasing productivity and competitiveness and built upon the foundations of the first IMP. With the Second IMP the focus shifted form the traditional industrial base to Cluster based approach. It emphasised the development of the industrial clusters, their key suppliers and the requisite economic foundations such as human resources, technology, physical infrastructure, supportive and administrative rules and procedures, fiscal and non fiscal incentives and business service support. It aimed to develop dynamic industrial clusters, and strengthen industry linkages, while promoting higher value added activities. Or better still the emphasis was to move the manufacturing operations from mere production to include research and development, design capability, development of integrated support supporting industries, packaging, distribution and marketing through the manufacturing plus plus strategy. This manufacturing strategy not only entails moving along the value chains but more importantly shifting the value chain upwards through productivity growth (MITI 1996).

The clusters at various levels of evolution were of various kinds. The natural evolving clusters mainly resource based including wood, rubber, palm, petroleum and chemicals. Policy driven clusters involved mainly the heavy industries that were established during the ISI strategy and included automotive, aerospace, machinery and equipment which are largely considered strategic. The third level consisted of clusters with international linkages which included electronics and electrical appliances and textile industries(MITI 1996). In 1996 the government of Malaysia launched the first investment in its technology based future, called the Multimedia Super Corridor(MSC). Conceived as a super high technology park, the MSC was intended to enable Malaysians to participate in and benefit from the global information revolution. It was planned to be a high-tech hub for government and the private sector, based on the concept of intelligence offices providing fast and easy transport of data domestically and internationally through the use of a world class voice and data communication network. It was intended to act as a magnet to attract the world's most advanced, high tech research and development companies to Malaysia. The government foresaw MSC operating as a test bed for use by information technology and multimedia researchers from around the world. The outcome of MSC is to enable Malaysia leap into knowledge intensive industries through the development of people, infrastructure and applications (Jusawalla and Taylor 2003).

A Multimedia Development Corporation (MDeC) was established in 1996. The MDeC implements and monitors the MSC program, processes the applications for MSC status, and advises the government on MSC laws and policies. A MSC International Advisory Panel (IAP) made up of experts and corporate leaders from the global community and Malaysia was instituted to provide advice on the MSC (Yusof and Bhattiasali 2008). Recognising the enormous gap that existed between Malaysia and other developed countries, the government hoped that MSC would be a vehicle that would attract high-tech Multinationals that would be willing to share some of their skills with Malaysian firms. Through MIDA a set of very attractive incentives were set a side for this.

The government also established institutions to provided skilled workers in order to ensure that such plans do not falter. It also encouraged the formation of private technical institutions to meet this demand. The privatised Telcom Malaysia began a Multimedia University and the first co hort of 1300 students was admitted in 1998. The government also reviewed laws that would have hindered the formation competitive industrial clusters at a national level, to enhance the supplying capability of SMEs and to encourage Malaysia to develop original brand names products in order to grow into multinational corporations. By January 2002, MDeC had surpassed its target to achieve 500 MSC status by 120 companies and it raised the target to 750 in 2003. Among this number it had managed to attract 50 world class companies. Through MIDA and MDeC multinationals were now encouraged to make Malaysia their head quarters(Jusawalla and Taylor 2003).

The continuing expansion of the Malaysian economy together with foreign inflows in the early and mid 1990s mounted pressure for upgrading until the bottom fell out of the economy in the late 1996 and early 1997 with the emergence of the Asian Crisis (Ritchie 2004). Following the devaluation of the Thai bhat, a wave of speculation hit Malaysia, and with its foreign exchange reserves down to US $28 billion, Malaysian Bank of Negara let the ringgit float in April 1997 to stem the speculative attacks. Between the float and January 1998 the ringgit had depreciated by about 50 percent against the dollar. The crisis in Malaysia was characterised by a significant and dramatic reversal in foreign portfolio capital, a reflection of the stock market boom that had preceded the crisis(Menon 2008). Other reasons include a combination of excess investment, high borrowings much of it in dollar denominated debt and a deterioration of the balance of payment (Girund 2003).

Malaysia was however able to stop the slide in its currency and stock markets without the help of the International Monetary Funds(IMF). This crisis prompted the government to make some fundamental changes in its policies towards investment which included cutting government spending by 18 percent, postponing indefinitely all public sector investment projects, freezing new company share issues and company restructuring and banning new overseas investment by Malaysian firms. Thus the government decided to temporarily disconnect the domestic capital market from the global economy in order to pursue its stimulatory policies(Menon 2008).The weaknesses facing the manufacturing sector had been worsened by the Asian crisis(Girund, 2003). Through sound macroeconomic management the economy made a massive turnaround in 1999 and the annual growth rate went to an impressive 5.4 percent compared to a contraction of 7.4 percent in the previous year (Menon 2008). Growth accelerated to a remarkable 8.9 percent in 2000 and the economy regained its pre crisis level by mid 2000 except for FDI which has taken time. The government also liberalised the economy further in 2000 and removed some of the restrictions imposed to FDI such local content requirements inline with the WTO regulations (Yean 2004).

By 2000 the manufacturing sector had become the most important contributor in Malaysia but started to show signs of contraction. This is because of loss of competitiveness caused on one hand by rising production costs arising from tightening labour market and other hand by the expansion of cheap exports from China, Vietnam and the LDCs (Rasiah 2009).At the heart of the problem lies in the incapacity of Malaysian firms to take the transition to higher value added activities (Rasiah 2009, Girund 2003). Local firms are mostly comprised of big conglomerate groups in most manufacturing activities. These conglomerates are successful, but to date have been heavily subsidised by the government often to the detriment of real managerial and technical capability development. Small firms have not developed as well and although there are efforts to support them and make them competitive these efforts are yet to bear fruits. The lack of focus on utilizing the organizations that were created to supporting upgrading along with the lack of performance appraisal of their management has resulted in a lack of support for the industrial and complementary firms in Malaysia (Rasiah 2009). The tight labour market made the government to allow foreign workers to be hired in the manufacturing industries. This has slowed down upgrading. More importantly the government did not have a clear technology development policy that focused on supporting catching up among local firms(Rasiah 2009).

By the end of the Second Industrial master Plan the government had already realised the weakness and noted that the economy did not met the targets as expected. The economic grew at 4.6 percent per annum for the period 1996-2005, falling short of the forecast 7.9 percent. All the sectors missed their growth targets except for mining and quarrying, which expanded 2.5 percent, above the 1.9 target. The faster than expected growth was attributed to the development of the oil and gas industry (MITI 2006). To address these weaknesses the government launched the Third Industrial Master Plan(IMP3) which outlined the steps that Malaysia intended to take from 2006-2020 in line with the Vision 2020 launched in 1991 where Malaysia envisaged its transformation into a developed nation.

2.7 Towards Global Competitiveness

The government of Malaysia is determined to steer the country to achieve the status of a fully developed nation by 2020. Towards this end a new industrialization strategy was launched in 2006 stressing on the importance of the service sector as the vehicle through which this vision is to be realised. This was a complete departure from the development strategy previously used where the manufacturing sector was the main driver for industrialization. The government continued to apply selective policies targeting the sectors intended to be developed and at the same time relying on foreign firms. The world economic crisis of 2008 led to a slow down in its economic growth but Malaysian economy is already exhibiting signs of recovery. It is hoped that with the economy recovering the domestic industries will continue to develop and become competitive though most enjoy government subsidies. Due to its improved and favourable location factors Malaysia is destined to be a major destinations for FDI in the near future and its on the path to become an industrialised country inspite of operating in a globally competitive environment.

The IMP3 is a 15 year blue print for industrial development in Malaysia. It is expected to drive industrialization towards a higher level of global competitiveness emphasizing on transformation and innovation in the manufacturing and services sector in an integrated manner towards attaining developed nation status under vision 2020. The key strategies of the IMP3 are built on 5 strategic thrusts of the National mission introduced in the 9th master plan. In this regard a total of 10 strategic thrusts were outlined to assists in the achievement of the macro targets and were classified in three broad categories namely development initiatives; which include enhancing Malaysia's position as a major trading nation, generating investment in target area among others, promoting of growth areas; which include sustaining manufacturing and promoting services as the main sector, and the last category entails enhancing the enabling environment which includes facilitating the development of knowledge intensive technologies and developing innovative and creative human capital(MITI 2006)..

The government identified 12 target growth industries in the manufacturing sector as well as 8 service sectors for further development and promotion given that these industries are strategically important to contributing to greater growth of the manufacturing sector as well as to export and strengthen sectoral-linkages(table 3). While manufacturing sector was targeted to take the lead in driving growth in the IMP2, the IMP3 sees the service sector assuming the leading role in driving economic growth from 2006-2020. It also anticipated that all sectors except services were going to see a decline in their contribution to GDP by 2020. As a result the Malaysian economy is expected to grow at an average rate of 6.3 percent during this period(MITI 2006).

Table 3

Manufacturing Industries	**Service Sub-sectors**
Non Resource based: • Electrical and Electronics • Medical Devices • Textiles and Apparel • Machinery and Equipment • Metal	• Business and Professional services • Logistics • ICT services • Distributive Trade • Construction • Education and Training

• Transport Equipment **Resource based:** • Petrol Chemicals • Pharmaceuticals • Wood • Oil Palm • Rubber • Food Processing	• Healthcare services • Tourist services

Source MITI 2006

The manufacturing sector has been declining since 1995. Average annual manufacturing growth fell from 11.7 percent in 1990-1994 to 5.9 per cent in 1995-99 and 4.8 percent in 2000-2005. The contribution of manufacturing, which had risen from 24.6 percent in 1990 to 30.9 percent in 2000 fell gradually to 30.1 percent in 2007. The growth rate of its share in total employment has moderated considerably. It only managed to increase its share from 2000-2007 by simply 1.3 points to 28.9 percent. Unless institutional change help drive upgrading the manufacturing sector in Malaysia is expected to contract further. These results suggest that Malaysia could be deindustrialising negatively. This is because the Malaysian sector continues to be affected by rising production costs arising from a tightening labour market and cheap exports from china and Vietman. The Malaysian sector has also failed to make transition to higher value activities(Rasiah 2009).

Although Malaysia has been affected by the 2008 world economic crisis the effects are not severe compared to the Asia 1997/98 crisis and already there are signs of the sector bouncing back especially in electrical and electronic industries and chemical industries. The country's financial system is strong and resilient and able to support business growth despite the weakening external environment. There signs of positive growth in the fourth quarter of 2009. Even though Malaysia's exports registered significant contraction in the first quarter of the year, the domestic demand continued to grow, increasing to 53% from 43% before, thus reducing the impact of the slower global demand(Bank of Negara 2009). Among the measures being taken include encouraging Malaysian entrepreneurs who have successfully built up their businesses overseas are to return home to develop their operations, given that the country is less affected by the economic downturn and remains as an attractive location for business. MIDA has a pack of incentives to assist in this (MIDA 2009).

Foreign investors continued to find Malaysia an attractive destination for investments particularly in the manufacturing sector, with the country recording a double-digit increase (38%) in approved FDIs amounting to RM46.1billion or 73.4% in 2008 from RM33.4 billion in 2007. This represented the fifth consecutive year of growth in FDIs with RM20.2 billion in 2006, RM 17.9 billion in 2005 and RM13.1 billion in 2004, reflecting foreign investors' confidence that Malaysia remained a preferred location for business operations. Existing foreign investors continued to reinvest and expand their operations in Malaysia especially into higher value added products. In 2008, foreign investments in expansion/diversification projects amounted to RM11.9 billion of which the E&E industry accounted for RM6.48 billion. Investments in the sector in 2008 were the highest recorded to-date and more than doubled the target of RM27.5 billion per annum set under the (IMP3).Thus its to early to think about deindustrialising as Malaysia seems to have put measures in place to move to the next level (MIDA 2009).

Malaysia has also been able to comply with WTO requirements especially in the export oriented industry hence the current WTO commitment do not seem to have hindered its development so far. The challenge lies in the import substitution sector which has continued to enjoy the governments protection especially in the automobile sector where the nominal tariff for complete built up units can range between 140-300 percent. In this sub-sector, protection has enabled both national car producers (Proton and Perodua) to capture up to 93 per cent of the domestic market. Furthermore, local content requirements have created about 220 vendors that are component suppliers, of which 40 are regarded to have export capability (Yean 2004). With China being a member of WTO there is greater opportunity for Malaysia but also increased competition. With more liberalization in trade and investment more and more policy instruments will be included in the WTO disciplines. This will mean that there will be a reduction in the policy instruments that can be utilised for industrial policy that is generally available for countries pursuing industrialization. Thus the immediate challenge to industrialization is to use WTO consistent policy to industrialize.

3.0 What are the lessons

The road to Malaysia industrial success has certainly not been smooth. Based on the above discussion we can derive the following lessons.

The role of government in very important in the development process. In Malaysia the government provided first and foremost the infrastructure that was required at the different stages of development to include roads, ports, railways, airports and heavy investment in ICT and this has caused Malaysia to remain an attractive destination for foreign firms. Secondly the government developed its labour force which became competent to work in the industry. Once the labour market became tight the government was flexible enough to allow foreign workers enter the job market. The government developed incentives and subsidies and even tariffs at different stages in development based on the needs at the time and was willing to change course once the strategies did not work. Fourthly the government was instrumental in maintaining a stable macro economic environment to avoid balance of payment problems caused by outflows of capital. The government was instrumental in selecting the sectors that were considered important for development and selective policies have been pursued targeting those sectors. Thus without government intervention at various stages it would have been extremely difficult for Malaysia to industrialise.

Foreign firms can play an important role in development. In Malaysia they have not only assisted in addressing balance of payment problems but also in boosting the manufacturing sector through production of goods for export. They assisted in creation of employment, increased output, transfer of technology and established some linkages with the local firms. Foreign firms that are involves at the initial stages of production tend to be labour intensive but as they move up the value chain they demand more skilled labour and infrastructure. Using the Malaysian experience one gets the feeling that they have not been able to get the most from these foreign firms. This is mainly due the fact that foreign firms have not always assisted in the development of local firms and therefore SMEs are not as competitive. This seem to have been a policy failure at the early stages of industrialization. With incentives from the government, some foreign firms have began transferring technology to the local firms hence it may be a matter of time before Malaysia begins enjoying the benefits. Its is also important to note that Malaysia mainly attracted foreign firms in selected industries based on comparative advantage.

Closely linked to the role of government are institutions. The government in Malaysia established many institutions which were supposed to facilitate industrialization. These institutions have worked very closely with both local and foreign firms offering then various incentives and support though initiatives like hand holding among others. These institutions have evolved over time to be able to serve the firms better. Malaysia's institutions have a clear mandate and adequate funding. In an environment with many institutions, coordination is paramount which has not always been the case.

Lastly Malaysian government with good institutions has been able to use foreign firms in all its sectors, but most notably in the manufacturing sector and more recently in the services sector to spearhead development. Foreign firms in their pursuit of profits will only pursue activities that guarantee their successes. Governments on the other hand have a responsibility of ensuring that they reap the benefits arising from the presence of foreign firms through providing incentives that allow for the creation of local linkages and development of the domestic industries. Good institutions will endeavour to address the challenges that foreign firms face and through incentives can become useful links through which local firms can benefit. In as much as foreign firms have made Malaysia to be very susceptible to external conditions, there is overwhelming evidence that even under such circumstances the country has achieved great success worth emulating by other developing countries.

4.0 Conclusion

This paper discusses Industrialization in Malaysia focusing on the dynamic role of the government and foreign firms. Foreign firms have a long history in Malaysia. The Malaysian government has been able to not only create a conducive environment for them to thrive but also to benefit the country through employment creation and technology transfer among other benefits. Without the intervention by the government it is doubtful if Malaysia could have achieved much benefit. Institutions can also perform an important role in becoming vehicles through which the government interacts with foreign firms. Malaysia has pursued both export and imports industrialization strategies with the mixed results. In as much market oriented policies can be preferred as a development strategy governments ought to pursue policies that can support the development of local industries by ensuring that they benefit from foreign firms spillovers something that markets cannot gurantee.

5.0 References

Alavi, R.,1996, *Industrialising in Malaysia: import substitution and infant industry performance*. Routeledge.

Aitken, B., Hanson, G., and Harrison, A., 1997, Spillovers, foreign investment, and export behaviour. *Journal of International Economics*. vol. 43, pp.103-32

Athukorala, C.P, and Menon, J.,1996, Export-led Industrialization, Employment and Equity: The Malaysian Case .Departmental Working Papers No 05, Australian National University, Economics RSPAS.

Blonigen, A.B., 2005, A Review of the Empirical Literature on FDI Determinants, NBER Working Papers. no. 11299, National Bureau of Economic Research, Inc

Blumenfeld, J.,1991, *Economic Interdependence in Southern Africa: From Conflict to Cooperation*? Pinter Publishers, London

Crouch, H., 2001, Managing ethnic tensions through affirmative action: The Malaysian experience. In N. J. Colletta, T. G. Lim,&A.Kelles-Viitanen (Eds.), *Social cohesion and conflict prevention in Asia*, pp. 225-262. Washington, DC: The World Bank

Dos Santos, T., 1970, The Structure of Dependency, *The American Economic Review*, vol. 60, no. 2, pp. 231-236.

Drabble, H.J.,2000, *An Economic History of Malaysia, c.1800-1900, The Transition to Modern Economic Growth*. St Martin's Press, United States of America.

Giroud, A., 2003, *Transnational corporations, technology, and economic development: backward linkages and knowledge transfer in South-East Asia*. Edward Elgar Publishing.

Jomo, K.S., 1993, *Industrialising Malaysia: Policy, Performance, Prospects*. Routledge

Jomo, K.S., and Edwards, C., 1993, Malaysian Industrialization in Historical Perspective in *Industrialising Malaysia: Policy, Performance, Prospects by Jomo K.S,* pp.14-39.Routledge

Jomo, K.S., and Rock, M., 1998, Economic Diversification and Primary Commodity Processing in the Second Tier South East Asian Newly Industrializing Countries, Discussion Paper no. 136, UNCTAD.

Jussawalla, M., and Taylor, R., 2003, *Information technology parks of the Asia Pacific: lessons from the Regional digital divide*. M.E Shapiro.

Kanapathy, V., 2000, Industrial Restructuring in Malaysia: Policy Shifts and the Promotion of New Sources of Growth, in S. Masuyama, D. Vanderbrink and C.S Yue (eds), *Industrial Restructuring in East Asia*, Singapore, pp. 139-65

Kind, J.H., and Ismail, N.M., 2001, Malaysia-The Lucky man of Asia? Working Paper No. 59/01, Foundation for Research in Economics and Business Administration Bergen, Norway.

Kuruvilla, S.C.,1995, Industrialization Strategy and Industrial Relation Policy in Malaysia, ILR Collection, Articles and Chapters, Cornell University ILR School.

Lall, S., 1995, Malaysia: Industrial Success and the role of the Government, *Journal of International Development*, vol. 7, no. 5, pp.759-773.

Lensink, R and Morrisey, O., 2001, Foreign direct investment: flows, volatility and growth in developing countries. Research Report 01e16, University of Groningen, Research Institute SOM (Systems, Organisations and Management).

Lim, D., 1973, *Economic Growth and Development in West Asia 1947–1970*. Kuala Lumpur: Oxford University Press

Malaysia Industrial Development Authority(MIDA).,2008, Good Governance on Investment Promotion: Malaysia's experience. Seminar on Good Governance on Investment Promotion Lima, Peru 19-20 May.

Malaysia International Trade and Industry(MITI), 1994, *Review of the Industrial Master Plan*, 1986-1995, Kuala Lumpur.

....,1996 *Second Industrial Master Plan*, 1996-2005, Kuala Lumpur.

....,2006 *Third Industrial Master Plan*, 2006-2020, Kuala Lumpur.

Menon, J., 2008, Macroeconomic Management Amid Ethnic Diversity: Fifty Years of Malaysian Experience, Development Paper No 102. Asian Development Bank Institute.

Merkusen, J.R, and Venables A.J., 1999, Foreign Direct Investment as a Catalyst for Industrial Development. *European Economic Review*, vol. 43, no.2 pp.335-56.

Onn.C.F., 1990, Industrialization in Malaysia: Role of Small and Medium Scale Industries, in *The Malaysian Economy in Transition* edited by Buang, A. National Institute of Public Administration, Kuala Lumpur, Malaysia

Penang Development Corporation(PDC), 1990, *Looking Back, Looking Ahead 20 years of Progress.* Penang

Rasiah, R., 1995, *Foreign Capital Industrialization in Malaysia*. Macmillan Press, Great Britain.

Rasiah, R., and Shari., I., 2001, Market, Government and Malaysia's economic policy, *Cambridge Journal of Economics*, vol.25, pp.57-78.

Rasiah, R., 2008, Is the Malaysian Manufacturing Sector Facing Premature Deindustrialisation, Malaysian Institute of Economic Research, National Economic Outlook Conference 2009-2010, Kuala Lumpur, Malaysia.

Ritchie, K.B., 2004, Politics and Economic Reform in Malaysia, William Davidson Institute Working Paper No.655, The University of Michigan Business School.

Simpson, A.R., 2005, Government intervention in the Malaysian Economy, 1970-1990: Lessons for South Africa. A research report in partial fulfilment of the requirements for the degree of Master of Public Administration in the Faculty of Economic and Management Sciences, University of the Western Cape.

Tandon Y., 2002, Fallacies About the Theory of FDI: Its Conceptual and Methodological Pitfalls, *Third World Network*, vol. 275, pp. 1-4.

Wilhelms, S.K.S., and Witter, M.S.D., 1998, Foreign Direct Investment and its Determinants in Emerging Economies, African Economic Policy Paper no. 9, United States Agency for International Development Bureau for Africa, Office of Sustainable Development, Washington DC.

Wheelwright, E.L., 1963, Industrialisation in Malaysia, in Silcock T.H. and Fisk E.K. (eds.):, *The political economy of independent Malaya (*Canberra, Eastern University Press).

World Bank., 1955, *The Economic Development of Malaya*. Johns Hopkins Press, United States of America.

......................, 1993, *The East Asian Miracle: Economic Growth and Public Policy*. Oxford University Press. New York.

......................., 1995/96 *World Development Report*. Oxford University Press. New York.

Yusuf, A. Z., and Bhattasali, D., 2008, Economic Growth and Development in Malaysia: Policy Making and Leadership, Working Paper no 27, Commission on Growth and Development. The World Bank.