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DEWAN AUDITORIUM KAMPUS BANDAR

UiTM MELAKA

14-15 OGOS AUGUST 2007

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FACULTY OF BUSINESS MANAGEMENT, UiTM MELAKA

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Does Location Advantage Matter? An Analysis Of FDI In Malaysia

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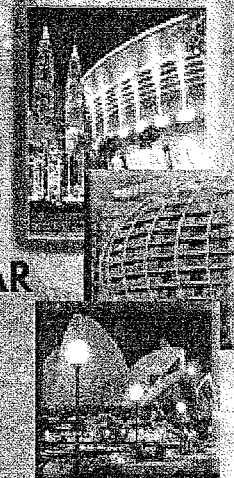
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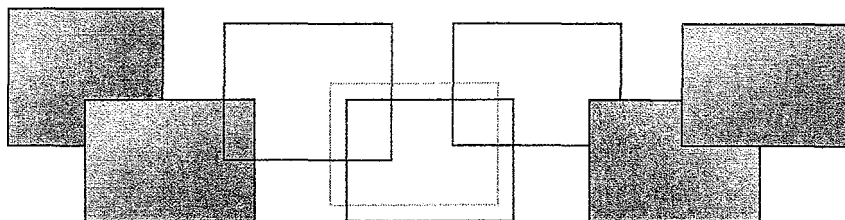
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Abd Halim Mohd Noor & Sazril Ambri Shahrim

ABSTRACT

Multinational Corporations (MNCs) have long played important roles in Malaysia's industrial development. Increasingly, in addition to the valued contributions of MNCs in terms of export revenue and employment, access to global markets is of paramount importance. This paper examines '*location advantage*' in influencing inward foreign direct investment (FDI) in Malaysia. Introduced by Dunning (1979), location advantage is part of the eclectic paradigm which is a general framework for determining the extent and pattern of FDI activity. It integrates various theories of the firm, organisation and trade. Selected theoretical approaches are also reviewed in explaining the basis for FDI and MNCs' existence. Encapsulating all theories is the ability of MNCs' to create and sustain their competitive advantages. The study utilized several proxies to determine the case for location advantage. The findings concur with similar studies in the literature.

1.0 INTRODUCTION

The purpose of this study is to determine host-country factors that influence Multinationals Corporations' (MNCs)¹ decisions to invest. Entry strategies may differ for each MNCs due to difference in risk, advantages opportunities and cost factors. Volumes of literature have been devoted to explaining the determinants of MNCs. However, it is acknowledged that the determinants of FDI by MNCs are in themselves linked to the attractiveness of host countries. Notwithstanding the relevance of other contending economic theories relating to MNCs, this study reviews the involvement of MNCs in developing countries, especially Malaysia.

This paper is organized as follows. The following section provides background of FDI in Malaysia and followed by a brief literature review on theories of MNCs. Section 4.0 presents the research design while Section 5.0 presents the finding. The paper concludes with a discussions and implications of the findings.

¹ In line with standard practice in this area of study, the MNC is defined as a firm that operates in two countries or more, including its home country.

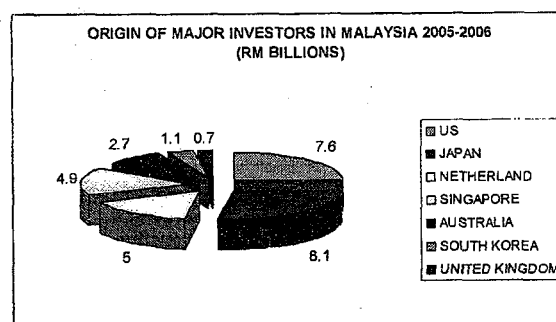
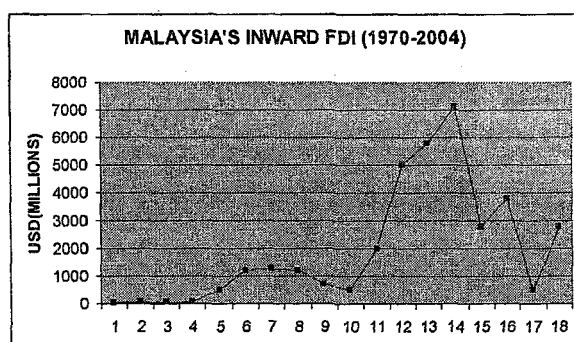
2.0 FDI AND INDUSTRIALISATION IN MALAYSIA

Malaysia's industrialisation strategies which began after Independence were influenced by internal economic conditions and global trade scenarios. The process of industrialisation has transformed Malaysia from a resource-based economy, dependent mainly on rubber and tin, to a more balanced economy with a growing contribution from the manufacturing sector. Malaysia's industrialisation process is synonymous with the presence of MNCs. MNCs are major players in Malaysia's process of industrialisation

MNCs presence in Malaysia began with British-based MNCs in the primary industries, especially in the tin and rubber industries during the colonial era. In the early years of Independence (the late 1950s to the early 1960s), import-substitution was the main stimulant of industrial investment. However, a change in emphasis towards export oriented industries in the latter half of the 1960s, witnessed the influx of US based MNCs, later to be followed by Japanese and European based MNCs. Presently, the MNCs contribute significantly to Malaysia's employment opportunities and exports. The argument that the MNCs were 'footloose' was dispelled when most of them stayed on, even though they had exhausted their incentives. Even during the Asian crisis, the indications were that the MNCs continued their operations in the country. However, competition for inward investments is stiff with China attracting more than 80% of foreign investment among the developing economies. Any uncompetitiveness associated with Malaysia would be detrimental to its prospects. Hence, it is important for Malaysia to maintain its competitiveness.

The following table illustrates Malaysia's inward FDI for the past twenty-five years. It peaked in the early and mid-1990s and currently is attracting more FDI. The United States and Japan are the biggest investors in Malaysia. Bulk of FDI is in the electronics industry.

Table 1



Source: Malaysia, Economic Reports, various years.

3.0 THE ECLECTIC PARADIGM

Introduced by Dunning (1979), the eclectic paradigm is a general framework for determining the extent and pattern of MNC activity. It integrates various theories of the firm, organisation and trade. According to the eclectic paradigm, three conditions must be satisfied in order for a firm to undertake foreign direct investment. These conditions concern advantages that a firm has in terms of ownership (O), location (L) and internalisation (I) - which have become known as the OLI framework.

Ownership advantage, as explained by Dunning (1995), is the advantage that MNCs have over domestic firms. This advantage includes both tangible and intangible assets such as manpower, capital, technology and organizational skill to list a few. These must provide MNCs with sufficient advantage to outweigh the disadvantage of doing business abroad. Assets that are specific to a particular location such as a conducive business environment, political and economic stability and trade policies are known as the location advantages. The ability of MNCs to use owner-specific advantages abroad is also considered as the location advantage in the eclectic paradigm. Location advantages are host country's natural endowments, macroeconomics stability, cultural factors and governmental regulations, among others. These variables are in the ambit of the host-country. Macroeconomics stability is the main determinant of location advantage (Baniak, et al, 2002). These advantages, though important, are not sufficient to explain why MNCs set up production abroad.

Internalisation is basically based on industrial organisation theory. Work on internalisation can be traced to the writing of Coase (1937). In his work, Coase explained the creation and growth of domestic firms through internally undertaking various activities rather than using the market. The process of internalisation takes place when firms find market transactions more costly and inefficient than internal co-ordination. Examples of costs using the market include the cost of determining the appropriate price of the product or services in question, contractual costs, associated risks and any taxes that have to be paid for the transaction (Casson, 1982). As such, internalisation is basically a process undertaken by firms to minimise cost.

This explanation is later transcended by further explanations of MNCs (Rugman, 1981). An extra dimension of the activities of firms was added by Dunning (1992). He noted that internalisation theory essentially tries to explain why the cross-border transactions are organised by hierarchies rather than market forces.

Critics of the eclectic paradigm, however, argue that internalisation and location factors are sufficient in explaining the activities of MNCs. Among criticisms of the paradigm is that raised against the 'ownership advantage'

(such as patents and management superiority) which critics considered double counting since the advantage actually originates from the internalisation process of MNCs (Itaki, 1991). A further limitation of the eclectic theory is that it only considers conditions necessary for DFI but not choices between other alternatives e.g. licensing, joint ventures, etc. (Markusen, 1995).

4.0 RESEARCH DESIGN

A. Data

Statistical Report by the Department of Statistics, Malaysia serves as the major source of data for this study. Other sources of data include annual reports by UNCTAD, Bank Negara Malaysia and Human Development Reports. The data comprises from 1980 to 2006.

B. Dependent Variable

The dependent variable in this study is level of FDI. FDI is measure by FDI inflows (USD millions). As highlighted FDI plays an important role in developing country's economic well-being. A high level of FDI inflow is indicative of a sound economic management and a high degree of competitiveness vis-à-vis other countries.

C. Independent Variables and Hypotheses

Based on the literature and following Lewis (2000) and Pantzalis (2001), this study identifies five factors that influence FDI in Malaysia: Gross Domestic Product, exchange rate, unemployment rate, illiteracy rate and number of professional engineers.

GDP is an indication of the level of country's economic growth. Countries with higher GDP attract more FDI. Such countries are able to provide conducive environment for MNCs to operate. It also has a demonstration effect where arrival of MNCs will attract more MNCs to the country. GDP serves to measure performance of a country. Continuous increase in GDP is an indication of good economic performance. A country which registers good performance will attract FDI. It is hypothesised to be positively related.

The exchange rate is a reliable indicator of a country's economic well-being. It is indicative of a country's socio-economic stability. An economically stable country tends to exhibit a stable and predictable exchange rate. MNC will be attracted to invest in such countries since they have to protect their assets from the fluctuation of their countries. Unstable exchange rate will be a major

barrier in financial forecasting towards the future planning of MNC's operation.

Low unemployment rate is necessary to attract FDI as it is indicative of the country's capability in managing its resources. Low unemployment rates, furthermore reflects government's effectiveness and efficiency in administrating the public sector. Obviously, MNCs are more attracted to invest in a country than can provide security and guarantees on their investment.

Despite the importance of macroeconomics factors, issues concerning quality of labour also need to be addressed. FDI in developing countries mainly are attracted to the low wages and the abundance of relatively educated labour force. Among the main indicator of the quality of labour is illiteracy rate. Most studies utilised illiteracy rate as proxy for the quality of labour.

Another labour issue is the technical capability of the locals. Large pool of technically competent labour force is crucial in attracting FDI. High technical capacity of host country reduces the need to train and internalize. Technically-inclined labour force will lessen the initial start-up and operational costs. The following table shows variables used in this study, the economic principles that they capture and their expected relationship with the dependent variable

Table 2

Type of Measure	Variable Proxy	Source	Expected sign
Level of FDI	FDI inflows (USD millions)	UNCTAD	Dependent variable
Level of economic growth	Gross Domestic Product (GDP) (USD millions)	Dept of Statistics, Malaysia (2006)	Positive
Economic stability	Exchange rate (RM/USD)	Bank Negara Malaysia	Negative
Current economic state and government capacity	Unemployment rate	Dept of Statistics, Malaysia (2006)	Negative
Level of education of labour	Illiteracy rate (15 years of age and older, %)	Human Development Report (UNESCO)	Negative
Level of technologically educated people	Number of professional engineer	Dept of Statistics, Malaysia (2006)	Positive

The combined effect of all independent variables on the dependent variable will be analysed using OLS regression model as follows:

$$\text{FDI inflows (USD millions)} = \text{constant} + \beta_1 \text{GDP} + \beta_2 \text{Exchange rate} + \beta_3 \text{Unemployment rate} + \beta_4 \text{Illiteracy rate} + \beta_5 \text{Number of professional engineers}$$

5.0 RESULTS

The model overall explains 80.7% of the variation in inwards FDI in Malaysia, though it is consider quite high for this type of study. All variables have the correct signs. In the regression analysis, the model encounters problems of level of significance. Only one independent variable is significant, however, the analysis has slightly alleviates the directional problem in this area of study.

Exchange rate is significant in explaining FDI inflows in Malaysia. Obviously high rate of exchange will deter FDI while low exchange rate attracts FDI. The results indicate the importance of exchange rate in attracting FDI in developing countries or any country for that matter. The findings concur with previous study by Lewis (2000).

Lewis (2000) also reports only exchange rate was significant while other variables despite correctly signed were not significant. Similarly, in this study, other variables, though correctly signed did not achieve the accepted level of significance. Level of technical capacity as proxied by number of engineers is positively signed is only significant at 25.9%.

Performance of a country is important in attracting foreign investors. FDI, though did not reach the level of significance, is correctly sign provide evidence, albeit weakly, on the importance of maintaining country's sound economic performance. Registering continuous increase in GDP is an indication of economic growth which augurs well for prospective investors.

Economic performance of a country can also be measured by its unemployment rate. The results indicate negative relationship between unemployment rate and level of FDI in Malaysia. Low unemployment rate will attract more FDI since it, as mentioned earlier, reflects good socio-economic management of a country.

Human capital is the main asset of any country. FDI is attracted to countries that have abundance of educated and technically inclined skill labours. Illiteracy rate is negatively signed, again providing weak evident on the importance of education for the masses in attracting investors. FDI or MNCs

are attracted to countries with low illiteracy rate. It is also an indication of trainable labour force.

Technically inclined labour force is the main “pull-factor” in attracting MNCs to a country as it will be translated to reduce start-up costs and smoother transferring of technical knowledge to their subsidiaries in the host country. Positively signed “Engineers” provide weak support to similar findings in various studies (Lewis, 2000; Pantzalis, 2001). Table 3 below presents the regression results.

Table 3

Regression Results

Variable	Coefficient	Significance	Expected Sign
(constant)	15877.074	1.185	
GDP	1.896E-02	.591	Yes
Unemployment Rate	-756.445	-1.661	Yes
Exchange Rate	-2742.710	-3.286	Yes
Illiteracy Rate	-195.539	-.617	Yes
Engineers	7.238E-02	.259	Yes

Dependent variable: FDI

$R^2 = 0.807$, Adjusted $R^2 = 0.747$, $F = 13.400$

6.0 CONCLUSION

Economic performance of a country is important in attracting FDI, be it in developing economies or any other economies. FDI is attracted to countries which exhibit growth potentials. These location advantages of host countries are crucial in attracting FDI. Current globalisation which witnessed FDI skewed to very few nations' highlights the need for countries to develop the location advantage. The study provides supports on various macroeconomic perspectives namely economic growth, economic stability, government capacity and the need to enhance the work force namely education and technical inclination in developing nation's location advantage.

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