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**THE IMPACT OF FOREIGN DIRECT INVESTMENT UPON
PARENT COMPANIES' COMPETITIVENESS:
AN EMPIRICAL STUDY ON SINGAPOREAN INDUSTRIAL
MULTINATIONAL ENTERPRISES**

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**THIS THESIS IS DEDICATED
TO MY PARENTS AND HUSBAND
TO WHOM I AM DEEPLY INDEBTED FOR
MANY THINGS IN MY LIFE**

ABSTRACT

Academic research on foreign direct investment (FDI) has concentrated primarily on its motives and means of market entry. In contrast, comparatively little work has examined the impact of FDI upon an investing firm, and of this, the focus has in the main concentrated on just one dimension, namely the impact upon its financial performance.

This study argues for the need to incorporate non-financial measures such as the impact of FDI upon an investing MNE's performance in key functional areas that include its technology, production, marketing, human resource and procurement management. It also argues for the need to assess the impact of FDI through detailed case studies on *individual* MNEs.

It presents empirical evidence gathered from three Singaporean industrial MNEs: *Yeo Hiap Seng Limited*, *Wearnes Brothers Limited* and *Times Publishing Limited*. The findings confirm that the diversity of environments which they are exposed to, provides them with multiple stimuli and subsequently allows them to develop capabilities and learning opportunities not open to domestic firms.

The findings also strongly suggest that all the three case companies see the current losses incurred by their overseas subsidiaries as part of the price

they are willing to pay in order to achieve their long-range corporate goals. Indeed, despite suffering from poor financial returns from their FDI, all of them regard their foreign operations as "successful" in marketing and/or technical terms.

In other words, this study refutes the body of literature (i.e. explanations of FDI based on economics) which suggests that a firm will undertake FDI particularly only in those countries where it perceives the highest gain in financial returns.

Conversely, this study suggests that a firm's choice of foreign market entry mode will depend on its strategic motives for overseas expansion. It also strongly suggests that MNEs are willing to accept trade-offs (e.g. short-term profits) for their long-term corporate goals (e.g. to establish an integrated manufacturing and marketing network in their major markets and/or increase overseas market share).

Lastly, this study provides conclusive empirical evidence to demonstrate that the performance of an MNE's particular overseas investment and its impact upon the parent company's competitiveness has significant influence upon its subsequent FDI decisions and characteristics.

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ACRONYMS & INITIALS

APEC:	<i>Asia Pacific Economic Cacus</i>
ASEAN:	<i>Association of Southeast Asian Nations</i>
EC:	<i>European Community</i>
EDB:	Singapore Economic Development Board
FDI:	Foreign direct investment
GDP / GDP:	Gross Domestic Product / Gross National Product
GSP:	<i>Generalised System of Preferences</i>
H-K:	Hymer-Kindleberger
IDI:	<i>International (Outward) Direct Investment Unit</i>
LIUP:	<i>Local Industrty Upgrading Programme</i>
MNE:	Multinational Enterprise
MOL:	Singapore Ministry of Labour
MTI:	Singapore Ministry of Trade & Industry
NAFTA:	<i>North American Free Trade Area</i>
NIEs / NICs:	Newly industrialising economies / newly industrialising countries
NPB:	National Productivity Board
NPB:	Singapore National Computer Board
OEM:	Original Equipment Manufacturers
OLI:	Ownership, locational, and internalisation advantages
PLC:	Product life cycle
R&D:	Research and Development
SES:	Singapore Stock Exchange
SMEs:	Small and Medium Enterprises
TDB:	Singapore Trade Development Board
TPL:	<i>Times Publishing Limited</i>
UNCTC:	<i>United Nations Centre for Transnational Corporations</i>
YHS:	<i>Yeo Hiap Seng Limited</i>

PART I

RESEARCH BACKGROUND

CHAPTER ONE

INTRODUCTION

1.1 Research Background

Even as recently as 1988, foreign direct investment (FDI) was undertaken almost wholly by multinational enterprises (MNEs) based in industrialised countries (see **Table 1.1**). Although recent figures on FDI have shown that direct investments from developing countries continues to account for only a relatively small share of the world's total FDI, outflows from this region is growing at an increasing rate. In absolute terms, the outflow of FDI from developing countries doubled from US\$159 billions in 1985 to US\$330 billions in 1988 (United Nations, 1990).

Table 1.1 Percentage Distribution of Outward Direct Investment by Country / Region, 1960-1988

Source Country / Region	1988	1985	1975	1960
United States of America	31.7	35.1	44.0	47.1
United Kingdom	17.8	14.7	13.1	18.3
Japan	10.7	11.7	5.7	0.7
West Germany	9.4	8.4	6.5	1.2
Switzerland	7.1	6.4	8.0	3.4
Netherlands	6.8	6.1	7.1	10.3
France	5.6	3.0	3.7	6.1
Canada	4.9	5.1	3.8	3.7
Italy	1.8	1.7	1.2	1.6
Sweden	1.2	1.3	1.7	0.6
Developed economies	97.1	97.2	97.7	99.0
Developing economies	2.9	2.8	2.3	1.0
World Total	100.0	100.0	100.0	100.0

Source: *United Nations Centre for Transnational Corporations* (UNCTC, 1990, 1988).

A number of authors have undertaken studies on the internationalisation of firms from developing countries, and some of these works have focused on their FDI (Kumar, 1990, 1982; Dunning, 1988, 1986; Levy, 1988; Khan, 1986; Buckley and Mirza, 1985, 1988; Monkiewicz, 1986; Wells, 1983; Lall, 1983; Lecraw, 1981, 1980, 1977; O'Brien, 1980; 1977; Kumar and McLeod, 1981; Heenan and Keegan, 1979). However, while there are clearly some quantifiable and unquantifiable features common to the process of economic development in all developing countries, the value of using "developing countries" as an analytical category for in-depth studies of FDI is limited. This limitation is significant when we consider that the term groups together countries as diverse as Brazil and Bangladesh, Singapore and Sierra Leone, South Korea and Senegal or Taiwan and Tanzania.

Recently, some researchers have begun to focus their attention specifically on the internationalisation of firms from the more advanced developing economies such as the four "tigers", namely, Hong Kong, Singapore, South Korea and Taiwan (McDermott, 1991; Pang and Hill, 1991; Aggarwal, 1990, 1985; World Bank, 1989; McDermott & Young, 1989; Hyun and Lee, 1989; Wortzel and Wortzel, 1989; Kwag, 1987; Lecraw, 1985; Lim and Teoh, 1986; Pang and Kormaran, 1985; Koo, 1985; Chen, 1983; Kumar and Kim, 1984; Ting, 1982; Jo, 1982). However there is still very little information available on Singaporean FDI at firm-specific level compared to South Korea, Taiwan and Hong Kong, and although Singapore is a relatively significant foreign investor compared to the other "tigers" (see Table 1.2).

Table 1.2
Annual Investment Outflows from Singapore,
Taiwan and South Korea, 1959-1992 (US \$ Millions)

Country	Singapore	Taiwan	S. Korea
1959-79	NA	59.26	NA
1976-79	734.21	---	23.05
1980	961.85	42.11	21.10
1981	998.63	10.76	40.08
1982	1242.20	11.63	129.37
1983	1329.23	10.56	113.16
1984	1428.15	39.26	56.97
1985	1343.57	41.33	117.16
1986	1546.19	56.91	171.99
1987	1762.80	102.75	332.72
1988	1782.08	218.74	153.11
1989	3148.06	930.97	324.98
1990	4448.70	1552.21	891.24
1991	NA	1656.03	NA
1992	NA	887.26	NA

Note:

- (a) All these figures may be grossly understated since it is not mandatory for a firm to have official approval from its home government before it undertakes FDI.
 (b) Official data on Hong Kong's outward FDI are not available from home country (1).

Sources:

- (i) Singapore: Singapore Department of Statistics (1992, 1993), "Singapore Investment Abroad, 1976-1989"; "Singapore Investment Abroad, 1990".
 (ii) S. Korea: *Korea Statistical Yearbook* (1991) and Bank of Korea (1993).
 (iii) Taiwan: Investment Commission Ministry of Economic Affairs, Republic of China (August 1991).

Perhaps one of the major reasons why Singaporean outward FDI has been given only a cursory treatment compared to the other three "tigers" is that all the authors who focused specifically on Singapore overseas investments were unable to gain access to the official data from the Singapore authorities. In fact some researchers (e.g. Hill and Pang, 1991; World Bank

(1989); Lim and Teoh (1986), Pang and Karamon (1985); Lecraw, 1985) even allege that the Singapore government does not collect or keep this information despite the fact that official data (albeit unpublished) on Singaporean outward investments is available since 1976 from the Singapore Department of Statistics (see **Chapter 4**).

Other reasons for the little attention given to Singaporean outward FDI may be because Singapore is more dependent on inward investment (see **Chapter 4**) than Taiwan, South Korea or Hong Kong. Singapore is also the smallest economy amongst the four tigers

Generally, as recognised by Hill and Pang (1991) themselves, it can be said that much of the statistical information on Singaporean FDI in the literature could have been based on logical speculations rather than hard empirical evidence since the authors rely on only secondary data from the host countries to reach their conclusions.

Moreover, in their analyses, some researchers have not specifically separated FDI undertaken by foreign subsidiaries of MNEs based in Singapore from FDI undertaken by Singapore-owned firms (e.g. Aggarwal, 1990, 1985; Lecraw, 1985; and Wells, 1983). In this researcher's view, broad generalisations caused by the lack of reliable secondary data, can lead to significant bias in research methodology and conclusions.

There are some other limitations in these studies as well. Pang and Kormaram (1985) for instance, have reached their conclusions without separating FDI from portfolio investments in their analyses. In Lecraw's

(1985) study, conclusions are drawn using only the data on Singapore's stock of FDI for 1980 in a few Asian host countries (e.g. Thailand, Malaysia, Indonesia, the Philippines and Hong Kong).

More importantly, currently, the Singapore government is encouraging Singapore-owned enterprises to engage in FDI to complement its economic development strategy of attracting foreign inward investment (*Financial Times*, 20 January 1993; *The Straits Times Overseas Weekly Edition*, 2 January 1993, 6 February 1993; 7 November 1992; 17 June 1989, *Economic Committee Report*, 1986). However, a survey of the literature on FDI, in general, has revealed that there is still no strong empirical evidence on how, and why, some firms benefit from their FDI and some do not.

Lastly, it has been suggested by some authors (e.g. Kim and Lyn, 1991; and Savary, 1984) that contrary to the explanations found in conventional FDI theories (see **Chapter 2**), firms which undertake overseas direct investment need not necessarily possess any monopolistic advantages (e.g. technological and management advantage) over firms in their host countries. Instead, FDI is the result of their strategic choice to acquire competitive advantages or to expand their operation geographically. However, how far does this phenomenon apply in the selected sample of Singaporean firms' FDI strategies and what are its implications on their performance?

1.2 Objectives of the Study

This study aims to fill this information gap in the theoretical and empirical literature on Singaporean outward FDI and the impact of FDI upon the Singaporean investing MNEs' performance by meeting the following research objectives:

- (i) to examine the nature and extent of Singaporean outward FDI at both macro and micro level (i.e. the size, types, trends, modes of entry, industrial and geographical distribution of Singaporean FDI);
- (ii) to ascertain the motivations for FDI of individual Singapore-owned MNEs- the "push" (e.g. constraints of home country endowment and demand conditions) and the "pull" factors (e.g. availability of large market size and raw materials in the host country);
- (iii) to determine the impact of the nature of a Singaporean MNE's FDI activities upon its parent company's performance;
- (iv) to establish the impact of the extent of a Singaporean MNE's FDI activities upon its parent company's performance;
- (v) to explore the relationship between a Singaporean MNE's international business experience (e.g. length of time in servicing overseas markets, diversity of market previously served) and the impact of FDI upon its performance;
- (vi) to explore the relationship between the preparation and feasibility studies made by a Singaporean MNE prior to embarking on FDI and the

impact of FDI upon its performance;

(vii) to identify the lessons to be learned by both the investing Singaporean MNEs and the Singapore government in the formulation and implementation of outward direct investment policies.

1.3 Research Propositions

Based on the existing theoretical and empirical literature (see **Chapters 2, 3 and 4**), the propositions generated are listed as follows:

Proposition 1. Singaporean MNEs use overseas postings as tools to develop a pool of Singaporean “international managers” in the parent operations (Kim and Lyn, 1990; Kwag, 1987).

Proposition 2. Singaporean MNEs invest in the industrialised nations to acquire advanced manufacturing technology and marketing intelligence (Merritt, 1991; Young et al 1991; McDermott, 1991; Porter, 1990; Kim and Lyn, 1990; Kwag, 1987; Jones, 1986; Savary, 1984).

Proposition 3. Singaporean MNEs which have been motivated to undertake FDI by the “pull” factors such as market size and availability of raw materials, tend to perform better financially than those motivated by the “push” factors such as high local production costs and small domestic market (Buckley et al, 1988; Jones, 1986; Tweedale, 1986; Sawers, 1986).

Proposition 4. The more experienced a Singaporean firm is in international business in terms of the length of time and the diversity of overseas markets which it has been servicing prior to engaging in direct

investment, the better the impact of FDI upon its performance (Bartlett and Ghoshal, 1989; Buckley et al, 1988; Jones, 1986; Young et al (1991), Sawers, 1986; Johanson and Vahlne, 1977).

Proposition 5. The mode of FDI entry (e.g. whether by joint venture, wholly-owned greenfield investment or by acquisition) has a significant impact on a Singaporean MNE's performance overseas (Kim and Lyn, 1990; Young et al 1989; Beamish, 1988; Kogut, 1988; Buckley et al, 1988).

Proposition 6. There is a significant correlation between a Singaporean MNE's overseas performance and the amount of preparation and feasibility studies made by the firm before it has decided to engage in FDI (Buckley et al, 1988).

Proposition 7. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on the parent firm's overall profitability (Grant, 1987; Dunning, 1985; Shaked, 1986; Savary, 1984; Vernon, 1971).

Proposition 8. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact upon the parent company's manufacturing technology, production, marketing, human resource and/or procurement management (Porter, 1990; Jones, 1986).

1.4 Research Methodology

To verify the preceding eight propositions, between June to August 1992, this researcher carried out personal interviews with senior executives of the three case companies (i.e. *Yeo Hiap Seng Limited, Wearnes Brothers Limited and Times Publishing Limited*) in Singapore using a semi-structured questionnaire. **Chapter Five** considers the use of case studies as a research strategy and the appropriateness of personal interviews as a means of data collection for this research. It also reviews other sources of evidence to augment and corroborate the data collected from these interviews. An overview of the sampling procedures and the criteria used to select the target companies is also given in the chapter.

1.5 Method of Analysis

The unit of analysis is the individual Singaporean MNE. To analyse the data collected during the personal interviews with senior executives in the three case companies and other sources (e.g. documentary evidence), this researcher used mainly "pattern matching" and comparative methods (Yin, 1987; Cook and Campbell, 1979) based on the conceptual models (see **Chapter 3, Figures 3.2 and 3.3**) and the research propositions developed. To draw in-depth inferences of the complex inter-dependent and interactive relationships of the variables studied in each case, these methods were supplemented by content analysis and explanation-building modes of analysis.

1.6 Definitions and Terminology

"Collective terms are a useful shorthand if they encapsulate an idea or thing with some degree of accuracy; but they are dangerous if they are thought to be self-definitive or explanatory".

Fieldhouse (1986, p.9).

Since 1960, the term "multinational corporation/enterprise (MNC/MNE)" was first developed by Lithenthal (1960, p.1), researchers have used various definitions with varying degrees of precision to denote a wide range of business entities and commitments. A distinction has also been made between FDI and portfolio investments (e.g. Hymer, 1976; Drucker, 1964; Vernon, 1973; Steiner and Cannon, 1966; Behrman, 1969; Aharoni, 1972; Dunning, 1974; Hood and Young, 1979; Caves, 1982; Shaked, 1986; Buckley and Casson, 1991).

Clearly, a universally accepted definition of MNE for empirical work still does not exist. Generally, as a means of distinguishing an MNE from other forms of business entities, most researchers tend to use one or some of these criteria:

- (i) the number of countries in which a company has its FDI activities (e.g. in at least one or five countries outside home country);
- (ii) the significance of its foreign markets (e.g. foreign sales account for at least 20% of total sales);
- (iii) the amount of capital investment committed abroad;
- (iv) the behavioural characteristics of the top management (e.g. "think

internationally" or has a genuine global perspective); and the proportion of employees abroad.

The essence of direct investment is that it involves not just ownership of a share in an asset but the acquisition of a controlling interest in it. However, what constitutes "control" over a foreign subsidiary is, again, not universal. A controlling interest may or may not involve holding a large percentage (if not the majority) of the equity (Shaked, 1986). In addition, countries differ in regard to the minimum percentage of equity ownership that they include as a FDI (as distinguished from portfolio investments) in their international payment data records. Given these inherent problems, it is essential to clarify some of the terms used in this study.

Based on the objectives of this research, the availability of official data, and the need to facilitate a comparison of the findings of this study with previous empirical works, as well as the arguments presented in the existing theoretical literature, the following definitions are used:

(i) A Multinational Enterprise

A multinational enterprise (MNE) is defined as an organisation which owns (in whole or in part), controls and manages income-generating assets in more than one country (Hood & Young, 1979, p.3).

(ii) Singaporean Enterprise

A Singaporean enterprise is defined as a Singapore registered company having at least fifty per cent of its paid-up capital beneficially owned by citizens or permanent residents of Singapore. The investment in an overseas project by a Singaporean enterprise must be made through a

Singapore holding company incorporated in Singapore. The holding company is called an overseas investment enterprise (*Singapore Economic Development Board, International Outward Investment Unit, 1992; Singapore Department of Statistics, 1993*).

A Singaporean MNE is, therefore, a Singaporean enterprise which owns (in whole or in part), controls and manages income-generating assets in more than one country.

(iii) Singaporean Subsidiaries, Associated Companies and Branches

Singaporean overseas subsidiaries and associate companies refer to companies incorporated outside Singapore in which the Singaporean enterprise owns at least 20 per cent of the total paid-up shares, indicating that it is in a position to exercise significant influence over key policies (e.g. financial and operational policies) of its overseas business. Overseas branches are wholly-owned by a Singaporean enterprise and operate under the same name as the Singaporean parent company (Singapore Department of Statistics, 1993).

(iv) Singaporean FDI

Singaporean FDI refers to the amount of paid-up shares of overseas subsidiaries and associated companies (i.e. at least 20%) held by a Singaporean enterprise. For overseas branches, the net amount due to the local parent company is taken as an estimation of the magnitude of direct investment.

In other words, Singaporean FDI excludes FDI undertaken by the subsidiaries of foreign MNEs located in Singapore and those enterprises

that are incorporated in Singapore for tax purposes but are owned and controlled by non-citizens or permanent residents of Singapore.

1.7 Scope of Study

This research focuses on FDI by three listed Singaporean industrial MNEs (i.e. *Yeo Hiap Seng Limited*, *Wearnes Brothers Limited* and *Times Publishing Limited*) globally and in all types of activities related only to their core manufacturing business. It excludes FDI by these three MNEs in the service sector like banking, recreational and residential property development.

1.8 Significance of Study

The main contribution of this study will be the empirical evidence gathered from the three company case studies. It is anticipated that the findings on the impact of FDI on individual Singaporean MNEs' performance will add empirical evidence to existing strategic management and international business literature which has increasingly proclaimed the linkages between multinationality and the performance of firms.

Moreover, because this empirical study uses a case study approach, it in itself is a contribution to the existing knowledge of the FDI phenomenon. There is already a large literature devoted to the analysis of aggregate data about contemporary MNEs.

Furthermore, since the existing literature in the fields of Economics and International Business tend to focus primarily on Singapore's economic achievements, its export-led growth strategy, and its success in playing host to foreign MNEs, it is anticipated that this empirical research will fill

the information gaps on Singaporean outward FDI.

Lastly, since the Singapore government has explicitly announced that developing and nurturing local MNEs will be its major industrial policy priority in the 1990s, it is anticipated that findings in this research will also make a useful contribution to the decision makers in individual Singaporean enterprises and/or to the policy makers in the *Singapore International Direct (Outward) Investment Business Unit* in formulating their overseas investment policies.

1.9 Limitations of Study

This research uses a case study approach. Because case studies do not rely on statistical analyses of aggregate data, no set of cases, irrespective of its size, can be reasonably generalised to a larger universe. Neither it is possible to generalise from one case to another.

In other words, this approach only permits one to generalise a particular set of empirical evidence on the impact of FDI upon the investing Singaporean MNEs to a broader body of knowledge within the context of the research problem focused in this study.

1.10 Organisation of this Study

This research is organised into four main parts. *Part I* presents the rationale of this study, the research objectives and propositions. It also provides a list of the definitions of the terminology used in this study. Lastly, the chapter outlines the research methodology used and its limitations.

Part II , which consists of Chapters Two to Five, reviews previous empirical research and considers the theoretical perspectives of this study. Chapter Two, begins with a critical review of the main economic theories of FDI which have been expounded over the last three decades. This is followed by a review of the business strategy and policy literature. Lastly, it presents a dynamic analytical framework of FDI which encompasses the concepts from both the economic and business strategy/policy approaches.

Chapter Three reviews the analytical frameworks used by previous researchers for evaluating the impact of FDI upon groups of investing firms based on their financial performance *per se*. It argues for the need to use the case study method and to incorporate both financial and non-financial measures when assessing how and why some firms benefit from their FDI and some do not.

Chapter Four reviews Singapore's industrialisation strategies and the progress it has made since 1961, the year its industrialisation programme was first launched. Detailed statistics are presented to provide an overview of how its economic and industrial structure has evolved over the last thirty years. The chapter concludes with a *SWOT* analysis of the Singapore economy.

Chapter Five considers the use of case study as a research strategy and the appropriateness of personal interviews as a data collection method. It also considers other possible sources of evidence that can be used to augment and corroborate the data collected from the interviews. Lastly, it gives an overview of the case sampling procedures and the criteria used to select the target case companies.

Part III, which consists of Chapters Six to Eight, presents a series of empirical evidence from the three case companies (i.e. *Yeo Hiap Seng Limited, Wearnes Brothers Limited and Times Publishing Limited*). The cases are presented separately and employs a consistent structure. The general structure of presentation for each case company is as follows:

- Company Background;
- Nature and Extent of FDI;
- Company's Motivations for FDI;
- Series of Empirical Evidence on How FDI Impacts upon Company's Performance
in:
 - (i) production & technology management
 - (ii) marketing management
 - (iii) human resource management
 - (iv) procurement management and
 - (v) financial management.
- Factors Influencing Performance
- Links between Research Findings and Propositions and Conceptual Frameworks
- Case Summary and Conclusions.

Finally, *Part IV* presents the main conclusions and implications of the literature review and the findings of this study. It discusses the contributions of this research to the theoretical and empirical literature and research limitations. Lastly, it provides a proposal for future research.

Chapter One

Notes:

1. This information that data on outward flows of Hong Kong's foreign direct investment from the home country is unavailable has been confirmed by the following organisations in the colony:

- (i) *Hong Kong General Chamber of Commerce;*
- (ii) *Hong Kong Government Census of Statistics Department;*
- (iii) *Hong Kong Government International Department;* and
- (iv) *Hong Kong Government Publication Centre.*

PART II
**THEORETICAL PERSPECTIVES
AND PREVIOUS RESEARCH**

CHAPTERS 2, 3, 4 & 5

CHAPTER TWO

INTERDISCIPLINARY EXPLANATIONS OF FOREIGN DIRECT INVESTMENT: A CRITICAL REVIEW

"There is no such thing as a once and for all explanation of international business. Firms change; so do the production and marketing conditions within which they operate. It is the interface between the changing value of the variables, the behaviour of firms, and of countries in which they locate which require us to continually monitor and restructure our thinking".

Dunning (1990, p. 11)

2.1 Introduction

By the late 1980s, the shortcomings of particular theoretical approaches as catch-all explanations of international production seem to have become clearer even to their keenest advocates (Cantwell, 1991). Indeed, many papers have critiques of just one particular FDI theory or all of the existing FDI theories (e.g. Itaki, 1991, 1989; Macharzina and Engelhard, 1991; Cantwell, 1991; Buckley, 1990, 1987; Casson, 1986; Mainardi, 1987; Kojima and Ozawa, 1984; Gray, 1982; Aggarwal, 1982; Calvet, 1981).

Despite some shortcomings, since Hymer's seminal work in 1960 (1976), each FDI theory has contributed to the advancement of the theoretical analytical framework for the FDI phenomenon.

This chapter aims to illuminate how some of the earlier explanations of FDI which were deemed valid at the time they were expounded but, instead became less applicable or even irrelevant due to the evolvement of competitive advantages of firms and countries or by the diversity of strategic behaviour among individual MNEs. It also aims to highlight the links between a particular firm's motives for FDI (i.e. firm-specific strategic issues) and the explanations of the firm's response to its internal and external environmental opportunities or constraints via the FDI route rather than other forms of international market entry and development modes.

The chapter begins with a critical review of the main economic ^①theories of FDI which have been expounded over the last thirty years. It considers how the applicability of each of the main strands of these theories have evolved from 1960 to date. This is followed by a ^②review of the business strategy and policy literature which, in this researcher's opinion, may be used to supplement FDI explanations based on the economic approach, so as to encompass the diversity of strategic behaviour of different firms, or even that of the same firm over time.

Lastly, it presents a conceptual model which is formulated by this researcher in an attempt to integrate the latest developments in both the economic and business strategy/policy approaches into a dynamic analytical framework of FDI.

2.2 The Developments of the Main Strands of Economic Theories of FDI from 1960 to Date

Table 2.1 summaries the main strands of FDI theories based on the economic approach from 1960 to date. The following sections discuss how they have evolved over these three main periods:

- (i) the 1960s to early 1970s
- (ii) the 1970s to mid-1980s
- (iii) the late 1980s to date.

(i) The 1960s to Early 1970s: FDI as a Trade Replacing Activity and/or Means to Exploit a Firm's Monopolistic Advantages

The first serious attempt to explain the FDI phenomenon only began during this period, although multinational activities were known to have existed as early as 1867 (Dunning, 1983; Fieldhouse, 1986). This period also witnessed a marked shift in pattern of FDI with US outward FDI in Europe reaching unprecedentedly high levels (see **Chapter 1, Table 1.1**). The main FDI theories expounded during this period were therefore aimed at explaining FDI from the USA. For example, they focus on factors which would influence or enable US firms to replace trade with FDI and the location of such trade replacing activities.

Table 2.2 shows that the development of these theories in this period is probably led by the evolutionary nature of the international environment (e.g. the formation of trading blocks, the innovatory capability or industrial development in some countries).

Table 2.1 A Summary of the Main Strands of Economic Theories of FDI

Theory / (Author)	Explanation	Illustration / Empirical Research
<p><i>Hymer-Kindleberger</i> (Hymer, 1976) (Kindleberger, 1969)</p>	<p>The existence of imperfections in good and factor market plus government intervention prevents the appropriation of all the returns to the monopolistic advantages a firm may enjoy when it coordinates its international operations through the market mechanism rather than within the firm. FDI ensures more control of these advantages and permits full appropriation as long as the investing firm can surmount the fixed cost of "foreignness" involved in overseas production.</p>	<p>Hymer argues that under the assumption of market imperfections, a firm possessing advantages in production technology and business techniques will be able to transfer the advantages abroad at a marginal cost close to zero" (Hymer, p.219). According to him, this is evident in the disproportionately high incidence of manufacturing companies which have moved abroad in industries characterised by high technology and marketing intensity.</p>
<p><i>Product Life Cycle</i> (Vernon, 1979, 1974, 1971)</p>	<p>FDI is a "natural evolution" in the life of a product. At the early stages of innovation, there are both country-specific and firm-specific reasons to keep production at home. In later stages, as its innovation diffuses; and as its competition and demand increases in foreign markets, the innovating firm engages in FDI to defend its position in place of its technological leadership.</p>	<p>When its product is at its introductory stage, an innovating firm will usually produce at home when its domestic market is large and there is a need to coordinate closely its R&D, production and marketing functions . As the product matures, a firm will need to sustain its competitive advantage through new markets, economies of scale and cost advantages by producing in less advanced countries and serve the home market or third country market through exports from its overseas subsidiaries.</p> <p><u>Empirical Research:</u> Supported - Stopford, 1974; 1976; Franko, 1976; Yoshino, 1976.</p>

(continue)

Table 2.1 (continued)

<p>"Follow the Leader" or "Exchange of Threat" (Knickerbocker, 1973)</p>	<p>An advantage may be conferred on the first firm that enters a market via FDI. Therefore, once a firm sets up a subsidiary in a foreign market, its rivals will follow it by also engaging in FDI to negate any advantage which the first firm may have gained via FDI or rival firms cross invest in each other's market to stabilise competition.</p>	<p>Knickerbocker found that two thirds of the 2000 US firms studied were found in at least a seven-year industry cluster and half of the total were in a three-year industry cluster. In Graham's argument, it is company A and B investing, each will be on hand to retaliate in case one of them makes an offensive move.</p> <p><u>Empirical Research:</u></p> <ul style="list-style-type: none"> • Supported - Flowers, 1976; Graham,, 1985, 1978, 1975)
<p>Currency Premium Aliber (1983, 1971, 1970)</p>	<p>Although engaging in FDI is perceived to be more risky and costly than investing in domestic market, the existence of different currency areas implies that some currencies are "harder" than others in a certain period. This currency premium a firm enjoys in a stronger currency area acts as impetus or permits the firm to engage in FDI in a weaker currency area.</p>	<p>Aliber asserts that the appreciation of the US dollar against European currencies explain US FDI inflows into Europe during the 1950s and 1960s.</p> <p><u>Empirical Research:</u></p> <ul style="list-style-type: none"> • Supported - Alexander & Murphy , 1975; Logue & Millet, 1977; Kohlhagen, 1977. • Not supported - Chuanunthan & Sachamanga, 1982; Gray, 1982; McClaim et al , 1978; Scaperlande, 1975.
<p>Product Differentiation (Caves, 1982, 1974, 1971)</p>	<p>Product differentiation induces FDI because differentiated products can be protected from exact imitation by patent trademarks, differences in sales terms and conditions; FDI is a means of exploiting a firm's competitive advantage in R&D, marketing and management skills.</p>	<p>It is argued that successful implementation of differentiating activities such as packing, colouring, performance, style and advertising necessitates that a firm locate its production and marketing operations near its market.</p>

(continue)

Table 2.1 (continued)

<p>Comparative Advantage (Kojima, 1982, 1978; Kojima and Ozawa, 1985)</p>	<p>Firms engage in FDI to overcome the comparative disadvantage in factor endowment in certain industrial sectors in its home country</p>	<p>According to Kojima and Ozawa, high labour costs and labour costs and labour shortage in Japan explains the influx of Japanese labour-intensive activities into Southeast Asian regions in the late 1960s to 1970s (and perhaps into other LDCs in these recent years).</p>
<p>Transaction Costs (Hennart, 1988, 1982)</p>	<p>FDI permits a firm to reduce its transaction costs, information costs and bargaining costs of coordinating operations and technological change at various stages of production that may not be possible when the separate stages of production are owned separately.</p>	<p>A firm enjoying technological advantage will generally undertake FDI if this route to enter into foreign markets allows it to minimise the absolute difference between the (transaction) costs for finding a licensee or distributor and (organisation) costs for coordinating operations in different countries.</p>
<p>Internalisation (Buckley, 1988, 1987; Buckley and Casson, 1989, 1987, 1985, 1981)</p>	<p>A firm undertakes FDI when the benefits of internalising the transaction within the firm by FDI outweigh the gains which can be obtained from exporting, licensing agreements or other contractual management agreements.</p>	<p>According to the advocates of this theory, FDI enables a firm to minimise the transactions cost, (e.g. time lag, communication costs and buyer uncertainty), across national boundaries, for its key intermediate products such as knowledge, marketing and management skills whereby it has ownership-specific advantages vis a vis its prospective host country firms.</p>

Source: Compiled by this researcher

**Table 2.2 Formation of Major Regional Trading Blocs
(1957 to 1967)**

Regional Trading Blocs	Year Established
European Community (EC)	1957
European Free Trade Area (EFTA)	1960
Latin American Integration Association (LAIA)	1960
Central America Common Market (CACM)	1960
The Association of South East Asian Nations (ASEAN)	1967
The Andean Group	1969
Caribbean Community (CARICOM)	1973

Source: Compiled by this researcher

According to Hymer (1976), FDI represents the transfer of technical knowledge and the flow of business techniques and skilled personnel abroad but where the investing firm still retains its control. He drew upon the ideas expounded in the industrial organisational theory and the theory of the firm (e.g. Bain, 1956; Coase, 1937). Under the auspices of imperfect competition, Hymer (1976) argued that FDI enabled a firm to expropriate the maximum economic rent of its firm-specific advantages or monopolistic advantages (e.g. supremacy in production technology and marketing skills) once it could surmount the fixed "costs of foreignness" (1976, p.48) involved in operating abroad (e.g. language barrier and lack of knowledge about the host country's legal systems and demand conditions).

Kindleberger (1969) further enunciated the particular monopolistic advantages which could be exploited through FDI. For example, economies of vertical or horizontal integration, possession of patented production technology or special team-specific managerial skills, favoured access to financial capital or advantages which arose indirectly from government enacted restrictions or incentives.

Overall, implicit in the *Hymer-Kindleberger* (H-K) argument is that the MNE is an instrument of monopoly capitalism. Apart from its emphasis on the desire of firms to strengthen their market positions through "full appropriation" of their returns under the auspices of imperfect market conditions, the H-K theory focused little or no attention upon the strategic issues of FDI.

Unlike Hymer (1976), Vernon (1966, 1974) was more interested in: "Where do US MNEs invest?". Vernon's work, therefore, placed more stress on country-specific factors influencing both the origin of the competitive advantages of firms, and the location of value added activities arising from them. It suggested that the location of production of a product follows its life cycle. Vernon (1966, 1974) argued that the US factor endowments, domestic demand conditions and market structures were country-specific advantages which enabled US firms to gain technological supremacy.

According to Vernon's product life cycle (PLC) theory, the production of innovative products would initially be located in the country (i.e. the USA) in which they originated. A firm would serve its overseas markets via exporting. But as foreign demand expanded, the firm's production

might be shifted to its large export market (e.g. Europe) and continue to serve its smaller markets [e.g. the lesser developed countries (LDCs)] via exports from the home country. As the products became more standardised, production in the home country might be displaced and some products may be exported from its overseas production bases (e.g. Europe). Eventually, as the products reached some degree of maturity, production would be relocated abroad to countries where the firm could gain a cost advantage (e.g. to the LDCs). At this final stage of the PLC, the firm may serve the home country through exports from its overseas subsidiaries.

2.2.1 Limitations of Hymer-Kindleberger (H-K) and Vernon's Product Life Cycle (PLC) Theories

Hymer (1976) and Vernon (1966, 1974) did not look at the strategic issues of cross-border activities nor did they examine the competitive advantages which might arise from the act of multinationality *per se*. They also ignored the possible interface between the activities of foreign MNEs in the USA and the activities of US MNEs in their host countries.

The *H-K* theory also failed to explain the two-way flows of FDI between countries, particularly between those countries with similar factor endowments and market conditions (Cantwell, 1991; Calvet, 1981). It also took the existence (and ownership) of a firm's monopolistic advantages (e.g. its technological supremacy) as given, and omitted to consider the costs of operating abroad (Casson and Buckley, 1976).

Furthermore, while Hymer (1976) considered using licensing as an alternative to FDI, Vernon (1966, 1974) completely ignored it. Unlike the

H-K theory, Vernon's PLC model did not explain resource-based or efficiency seeking direct investment because it focused only on the investing firm's technological capability. Neither did it address organisational issues or the kind of advantages that can arise from firm-specific characteristics.

Lastly, both theories did not shed any light on whether the collapse of colonial imperialism (e.g. the British and French empires) during this period and/or the devastation of Western Europe and Japan by the Second World War had actually had an indirect catalytic effect on the growth of US FDI.

(ii) The 1970s to the Mid-1980s: FDI as a Consequence of the Nature of MNEs and Markets

In this period, the emphasis on explaining FDI shifted away from the use of trade related variables to the characteristics of the MNEs and the markets involved. For example, some researchers focused on the differences between the advantages possessed by local and foreign firms (e.g. Caves, 1971, 1974) while others used the tools of locational economics to explain both the origin and the exploitation of competitive advantages of firms (Kojima, 1978, 1973).

Like those FDI theories expounded between the 1960s and the early 1970s, theories developed during this period were still predominately from researchers (Caves, 1971, 1974; Knickerbocker, 1973; Aliber, 1970, 1971) mainly concerned with explaining FDI by US MNEs in developed countries. Knickerbocker (1973), for example, (1973) looked at the strategic behaviour of US firms in oligopolistic industries; Caves

(1971, 1974) at the influencing factors of product differentiation; and Aliber (1971, 1970) specifically at the imperfect foreign exchange and capital markets. However, according to Kojima (1978, 1973), the characteristics of Japanese FDI and MNEs are distinct from those of US FDI and MNEs. He attributes the distinction to the differences in the home countries' factor endowments and industrial structure.

According to Knickerbocker (1973), the concept of defensive investment which was first postulated by Lawfalussy (1961) for uni-national firms could be broadened and used to explain the "clustering" of MNEs in oligopolistic industries. He argued that FDI might confer an advantage on the first firm which entered a foreign market via FDI rather than export. Once one firm set up a foreign subsidiary in a particular country, its rivals would do likewise. This "follow the leader", approach enabled the rivals to negate any advantage which the first firm had gained (Knickerbocker, 1973).

2.2.2 Limitations of the "Follow the Leader" Theory

Although empirical work by Flowers (1976) and Graham (1975, 1978) generally supported Knickerbocker's (1973) findings on the correlation between market structure and the pattern of FDI, this "follow the leader" argument in itself could be interpreted in other ways. For example, Knickerbocker's (1973) analysis also showed a strong positive correlation of clustering with profitability index of stability and cohesion in the environment of the targeted MNEs' domestic market.

In other words, a profit-oriented motive could also be deduced from his findings rather than just a defensive investment caused by market

structure. Moreover, even if oligopolistic strategy *per se* is assumed for the clustering, this "follow the leader" theory failed to explain the initial investment made by the first firm.

Furthermore, Knickerbocker's results (1973) could also be used to support an alternative argument. For example, it can be argued that the "follow the leader" behaviour may not be oligopolistic in nature but rather is simply an acknowledgement by other firms that the critical investor possesses the firm-specific advantage of leadership in market intelligence (Buckley and Casson, 1991, 1976; Aggarwal, 1980; Hood and Young, 1979). This move may enable the 'followers' to exploit any change in the foreign market such as rising demand or improved potential for long term growth market. However, despite these ambiguities in the results, Knickerbocker's concept of defensive FDI is still of some merit.

The concept of oligopolistic reaction to perceived or actual competition provided some useful insights into the influence of market structure and industry-specific factors on the pattern of FDI. It has also contributed to the advancement of some other theoretical approaches. For example, the theoretical argument of oligopolistic reaction has also been incorporated into the later version of the PLC "*Mark II*" model (Vernon, 1983) as a result of some studies done during the 1970s.

In these empirical studies, Vernon's PLC analytical framework was also extended to embrace FDI by MNEs from countries other than the USA (e.g. Stopford (UK, 1974, 1976) and Franko (Continental Europe, 1976) and Yoshino (Japan, 1976). These studies all confirmed the importance

of locational advantages of home and host countries in shaping the industrial and geographical distribution of FDI.

On the other hand, according to Japanese researchers (Kojima, 1978, 1977, 1973; Ozawa, 1979), the explanatory power of the "follow the leader" and the PLC theory (or indeed most explanations of FDI based on the American experience) cannot be extended to Japanese MNEs. In other words, there is a "Japanese Model of FDI" or a "comparative advantage theory of FDI" (Kojima, 1978, 1977, 1973).

According to Kojima (1978, 1977, 1973), while US MNEs engaged in sectors where the USA had a comparative *advantage*, the Japanese MNEs contrast were in sectors where Japan had a comparative *disadvantage*. US firms engaged in FDI to exploit oligopolistic factor and product markets as well as to circumvent trade barriers. Using the macro-economic and industry-cycle approach, he (1978, 1977, 1973) supported his argument by citing the cases of Japanese firms in labour-intensive industries and declining heavy industries which were forced to relocate overseas (especially to less developed countries) as a result of comparative disadvantages such as labour shortage, rising labour costs or lack of natural resources.

Ozawa (1979) reinforced the distinction between Japanese and US FDI to the adaptive behaviour of the entire Japanese economy to changing world economic conditions, rather than to firm-specific factors. Implicit in his argument is that there was no case for oligopolistic reaction. He identified the following factors as key determinants of Japanese FDI:

(i) protectionism against made in Japan products,

- (ii) Japan's strong dependency on imports of natural resources,
- (iii) Japan's labour shortages, rising labour costs, and
- (iv) investment incentives offered by LDCs to foreign investors.

2.2.3 Limitations of the Comparative Advantage Theory

Criticisms of this theory is well documented. In essence, critics of this theory refute the clear distinction between the so called "trade-oriented Japanese type of FDI" and the "trade-destroying American type of FDI" as alleged by Kojima (1978, 1977, 1973). For example, the theory cannot satisfactorily explain FDI flows which are based more on the need to exploit economies of scale, product differentiation and other manifestations of market failure. (Dunning, 1989, 1988; Mainanadi, 1987; Clegg, 1987; Seymour, 1987; Buckley, 1983, 1987, 1985, 1981; Casson, 1986; Calvet, 1984; Rugman, 1980; Mason, 1980).

Moreover, Kojima (1978, 1977, 1973) appears to have ignored the possible efficiency gains of FDI. For example, these gains could come from geographical diversification, the exploitation of the economies of joint supply, better commercial intelligence, and the avoidance of costs of enforcing property rights (Gray, 1982).

Furthermore, the recent FDI activities of large, well established Japanese electronics and automobiles MNEs (e.g. *Matsushita*, *Nissan*, *Sony*, *Toshiba* and *Toyota*) in the European Community (EC) and the USA certainly demonstrate some strong oligopolistic elements. There is strong empirical evidence that many Japanese MNEs, like their US counterparts, are engaging in FDI for mainly market-oriented reasons rather than for

resource-based or cost reductions reasons [e.g. Euro-Jerc (1991, EC); Morris, 1988 (UK); and Kujawa, 1986 (USA)].

Indeed, Japanese MNEs have clearly moved away from "defensive investment" to "offensive investment" in world markets. Witness, for example, their acquisition binge in the USA and the decentralisation of their research and development (R&D) activities. For instance, besides Tokyo, *Sony's* R&D activities facilities are also located in Germany (Stuttgart), the USA (New York), Taiwan and Singapore (*Singapore Investment News*, 1989).

Moreover, as Ohmae (1985) has noted, a need to gain access to and monitor technological developments in industries such as biotechnology and robotics is motivating some Japanese MNEs to establish R&D facilities in Europe and the USA.

Lastly, it can be argued that for any country which considers its outward FDI as vital element of the country's economic development strategy, home government exerts some influence on the pattern of outward FDI. However, when taken from a country-specific perspective, it is also important to relate corporate behaviour to time, as the economic system of a country tends to be evolutionary in nature (Porter, 1990; Dunning 1990).

Like the comparative advantage theory, Aliber's currency premium theory tries to explain the FDI phenomenon from a macro-economic perspective. According to Aliber (1970, 1971), the pattern of FDI may be explained in terms of differences in capitalisation rates caused by

variations in the attributes of national currencies. He argued that the existence of different national currency areas implied that firms in a stronger currency area would be able to borrow at lower costs and capitalise the same amount of expected earnings on their FDI at a higher rate than firms in a weaker and less stable currency area, *ceteris paribus*. This argument implies that when the currency of a firm's home country appreciates against its prospective country, there will be sufficient incentive for the firm to undertake FDI in the latter. This view is supported by the recent increase in FDI in the USA by MNEs from Japan, South Korea and Taiwan.

2.2.4 Limitations of the Currency Premium Theory

Although some studies during this period generally supported Aliber's theory (e.g. Alexander and Murphy, 1975; Logue and Millet, 1977; and Kohlhagen, 1977), others over the same period and thereafter have shown that the depreciation of foreign exchange rate in a country did not necessarily lead to an inflow of FDI into that country (e.g. Chunanuntathan and Sachamarga, 1982; McClain, 1983; Gray, 1982; Boatwright and Renton, 1978; and Scaperlanda, 1975). From these varying results, the evidence suggests that fluctuations in exchange rates, and in structural or transactional imperfections in international capital finance, may influence the *timing* of a FDI decision rather than its cause.

Clearly, an MNE can gain or maintain a competitive edge over a uni-national firm by virtue of its ability to dominate its geographically dispersed assets and goods in different currencies. Conversely, a firm's competitive edge may be attributed to its ability to gain cheaper or

privileged access to some capital to finance its operations or expansion, rather than due to the existence of different currency areas (Hood and Young, 1979; Gray, 1982; Aggarwal, 1980; Dunning, 1988),

Moreover, these advantages in the financial aspects *per se* are not sufficient to explain the amount or distribution of FDI by industry as well as the reason why the foreign involvement should take the form of direct investment rather than portfolio investment. Indeed, in many respects, the currency premium theory can be regarded as an extension of portfolio capital theory to incorporate market failure rather than a theory of FDI *per se* (Dunning, 1990).

Furthermore, the fact that less developed countries often lack strong domestic capital markets weakens the applicability of *Aliber's Currency Premium Theory*. Its relevance is also questionable when relating to the issues of cross-hauling of direct investment between weak and strong currency areas (Hood and Young, 1979).

Overall, despite its shortcomings, *Aliber's theory* does provide some insights into the possible influence of financial-specific variables on FDI. Unlike the *Comparative Advantage Theory* and *Aliber's Theory*, the *Product Differentiation Theory* (Caves, 1974, 1971) tries to explain the FDI phenomenon from a micro-economic perspective. Caves (1974, 1971), argues that most firms undertake FDI to achieve vertical and/or horizontal integration. The vertical type of FDI is undertaken when it wants to avoid oligopolistic uncertainty in sourcing raw materials and to create barriers to entry for likely competitors. For the horizontal type of FDI, Caves agrees that the inducement came from product differentiation

because differentiated products could be protected from exact imitation by patents or high costs of imitation, trade marks, differences in sales terms and conditions.

In other words, implicit in Caves's argument (1974, 1971) is that for FDI to occur, knowledge must be easily transferable within the firm and across national boundaries, but less easily transferable between different firms, whether in the same or different countries. Since it is not easy to separate product differentiation from either the production process or the marketing activity of the firm, there is potential for the firm to earn higher profits by retaining the knowledge within itself.

2.2.5 Limitations of the Product Differentiation Theory

A number of subsequent empirical studies on US FDI in the UK and Canada support Caves's hypothesis that product differentiation promotes the growth of MNEs (Lall, 1980; Baldwin, 1979; Bergester, Horst and Morgan, 1978; Horst, 1972; Dunning, 1973; Bauman, 1975). However, some of these studies have also, at the same time, suggested that multinationality is also associated with economies of scale, concentrated market structure, large firm size and managerial skills.

Moreover, it can be argued that the consistently high incidence of multinationality of firms involved in the manufacturing of products like automobiles, detergents and toiletries, and electronics products (e.g. audio-visual products) in today's world markets where product differentiation has been significant also appears to support Caves's theory.

Lastly, it is argued here that while a firm may be able to derive some competitive advantages from product differentiation, having these advantages alone is not sufficient for the firm to engage in FDI. There are differences between a firm's motivations for product differentiation on the one hand and geographical diversification on the other. There are also cost implications (but apparently, Caves had overlooked them) in producing directly overseas. The following section examines how contributions during the 1970s have evolved and at the same time considers the contributions made from the later part of this period to the mid-1980s.

(ii) The Late 1970s to the mid-1980s: FDI as a Response to Both Macro and Micro Economic Factors, and Stages of Home Country Economic Development

During this period, two major attempts were made to refine, integrate and synthesise the various strands of FDI theory based on the micro and macro economic approaches developed during the 1960s and early 1970s *videlicet* the internalisation, eclectic and stages of development cycle theories (e.g. by Dunning, 1977; 1979, 1981, 1983, 1985; Rugman, 1980; Hennart, 1982; Buckley and Casson, 1976; Casson, 1983; Buckley, 1985). These theories emphasise transaction cost market failure and have been referred to as the "Reading School" of thought (Kindleberger, 1984, p.183). Indeed, these general economic theories have become the dominant explanations, *albeit* their generality and shortcomings, for the FDI phenomenon even up to today.

The origins of the concept of internalisation can be traced back to the works of Coase (1937), Bain (1956), Penrose (1956, 1971), Williamson

(1975) and Hymer (1976). For example, this concept is similar to Hymer's emphasis on a firm (which has ownership advantages) undertaking cross-border vertical and horizontal integration for "joint maximisation" (1976, p. 71) to "internalise or supersede the market" (1976, p. 60). However, in these earlier works (Hymer, 1976; Williamson, 1975), the relationship between market imperfections and internalisation was still not explicitly expressed or enunciated.

Moreover, unlike the proponents of the earlier FDI theories, as noted by Dunning (1990), the internalisation economists focused more on the role of the MNE as a "transactor" (rather than a "producer") which coordinates the use of intermediate products produced in one country, with subsequent value added activities in another (e.g. Buckley and Casson, 1990, 1985, 1981, 1976; Casson, 1982, 1982a, 1979; Buckley, 1983; Hennart, 1982; Rugman, 1980; Hill and Kim, 1988; Teece, 1983, 1981, 1977; Anderson and Gatignon, 1986; Swedenborg, 1979; Lundgren, 1977; Brown, 1976).

According to the transaction costs theorists, by undertaking FDI a firm can reduce dissemination risk and therefore economise on the transaction costs of licensing or other forms of contractual management agreements. If the reduction in transaction costs exceeds the bureaucratic costs of establishing and running an internal market to transfer know-how, establishing a wholly owned subsidiary will be the optimum choice.

In essence, the main thrust of the internalisation theory is about minimisation of transaction costs. It is mainly concerned with: "Why do firms, rather than markets organise cross-border transactions?".

According to the advocates of this theory, a firm has multi-functional operational activities (e.g. Buckley and Casson, 1976). For example, in addition to the routine activities of manufacturing products and delivering services, it has other operational functions such as marketing, R&D and employee training. On the other hand, the markets for key intermediate products (e.g. expertise/knowledge in marketing, R&D and management) are imperfect. Transactions costs (e.g. costs of foreignness, costs arising from communication, co-ordination and control at a distance, and time lags) will need to be incurred to transfer these intermediate products between independent buyers and sellers located in different countries. FDI will occur when a firm finds it more beneficial to use and co-ordinate its intermediate products within its own organisation, with subsequent value added activities outside its home country.

Clearly, the key concept of this theory is that it is not the possession of unique asset *per se* which gives a firm its advantage, but rather that the internalisation of cross-border markets may in itself enhance these advantages and consequently, encourage FDI.

2.2.6 Limitations of the Internalisation Theory

This theory ignores location costs and fails to predict the direction internalisation takes, especially on the issue of recipient host country (Clegg, 1987). It also assumes that wholly owned overseas operations are more efficient than joint ventures when the opposite may be the case (Young et al, 1989).

Moreover, this theory underestimates the importance of the competitive characteristics of countries (e.g. the strategic goals and industrial policies of the home government) in influencing the strategic behaviour of firms (Kojima, 1982). It also fails to recognise that the kind of market failure that determines a particular kind of foreign value added activity or motivates one firm to undertake a specific type of FDI, may be quite different from that which has motivated another firm. For example, the inability of the market to ensure that a seller of an intermediate product gets sufficient control over the quality of the final product (e.g. a branded consumer goods or service), may have motivated the seller to replace the market by cross-border forward integration. A firm may engage in cross-border backward integration to reduce the risk of interrupted supplies or price hikes. The desire to gain economies external to the activities in question, but internal to a firm as a whole may have also motivated the firm to engage in a multiple FDI activities in a number of locations under common governance.

Lastly, because this is an economic theory and takes firms' proprietary assets as given, it fails to encompass industrial dynamics issues, such as innovation and entrepreneurship which could have motivated firms to engage in FDI (Cantwell, 1991). It also fails to take into account the role

of management decision making (Kindleberger, 1988). Indeed, this last shortcoming is also recognised by the advocates of this theory themselves (Casson, 1990, 1987) and Buckley (1987, 1983).

The eclectic theory draws on the concepts of location and internalisation but has a third key variable, ownership advantages added to it. According to Dunning (1977, 1979, 1980, 1981, 1985) a firm will undertake FDI if and when *all* of the following three conditions have been fulfilled:

- (i) if and when its ownership advantages ("Oa") permit it to compete with firms in its host country (e.g. supremacy in production technology, marketing or management expertise, patented trademark and/or excess financial capital or favoured access to inputs);
- (ii) if and when the prospective host country has locational advantages ("La") (e.g. lower production costs, natural resources, protected large market, investment incentives and/or good infrastructure provisions); and
- (iii) if and when the benefits of internalising ("Ia") the transaction within the firm across national borders by FDI outweigh the gains which can be obtained from exporting, licensing, technology co-operation, international subcontracting and/or other international contractual management agreements.

Dunning (1985, 1981, 1980, 1977, 1979) argues that the greater the ownership advantages a firm has over foreign firms, the higher the propensity for the firm to internalise its advantages. Moreover, the more beneficial it is for the firm to exploit its advantages by using foreign country-specific endowments rather than those available locally, the more likely the firm will become an MNE.

Unlike the advocates of the internalisation theory (e.g. Buckley and Casson, 1990, 1985, 1981, 1976; Casson, 1982, 1982a, 1979; Buckley, 1983; Hennart, 1982; Rugman, 1980; Hill and Kim, 1988; Teece, 1983, 1981, 1977; Anderson and Gatignon, 1986; Swedenborg, 1979; Lundgren, 1977; Brown, 1976), Dunning (1985, 1981, 1980, 1979, 1977) maintains that FDI as opposed to exporting or licensing or any other international contractual agreement decision is not always determined by market failure considerations. This is because firms and markets do not perform identical functions. For example, only firms undertakes value added activities.

Within Dunning's theoretical analytical framework (1985, 1981, 1980) the prediction is that if a firm has only "Oa", its foreign involvement route will be in the form of licensing or other forms of management contractual agreement. But if the firm has "Oa" and "Ia", Dunning predicts that it will start exporting. The eclectic theory is therefore not a theory of FDI *per se*, as it is also concerned with the foreign involvement of firms rather than just the way that output is financed.

Compared to the internalisation theory (which focuses primarily on transaction costs but ignores location costs), the eclectic model provides a wider analytical framework to predict the direction which internalisation may take, especially on the issue of recipient host country (Clegg, 1987). It also allows testing to be done at a general theoretical and empirical level under the auspices of the "OLI" framework. In other words, as a general theory, it is more flexible than internalisation theory.

It is interesting to note that during the late 1970s and early 1980s, while the analytical framework of the internalisation and eclectic theories were increasingly being formalised and broadened to unify and synthesise the various main strands of earlier FDI theories, various authors were also seeking to explain the emergence of MNEs from developing countries and small MNEs in low-technology industries by various authors (e.g. Lecraw, 1985; 1980, 1977; Keegan and Heena, 1979; Kumar and McLeod, 1981; Wells, 1983, 1979; Lall, 1983; Aggarwal, 1985; Escho, 1985; Chen, 1983, 1984; Ting and Schive, 1981; Kumar and Kim, 1984; and Lim, 1985).

Findings of these studies on FDI from developing countries during this period suggested that MNEs from the developing countries, like those MNEs from developed countries, had certain advantages over their host country's enterprises. However, according to these studies, there were also some fundamental differences between MNEs from developed and developing countries. For example, in most cases MNEs from developing countries had advantages in small-scale and labour-intensive technologies (Wells, 1983).

Some authors (Lall, 1983; Wells, 1983; Kim and Lyn, 1990; Min and Brewer, 1987) have argued that given these differences, some of the existing or so called "conventional FDI theories" cannot be used to explain the multinational activities of these unconventional MNEs but on the other hand, Giddy and Young (1983) and Sagafi-nejad (1986) have suggested that they are applicable.

Based on the findings of his research on Indian MNEs, Lall (1983) argues that firms from developing countries are able to undertake FDI (i.e. the "causes" of FDI) because they have developed or accumulated production technology/technique for small markets in consumer goods (i.e. not capital goods). For example, they possess competitive advantages in descaling imported technology or developing products which are most suitable for Third World markets (e.g. bicycles mainly for transportation rather than leisure). Other "causes" of FDI are the need to:

- (i) extend uses of imported technology to lesser developed countries;
- (ii) reduce costs of production; and
- (iii) adapt products to specific foreign markets requirements

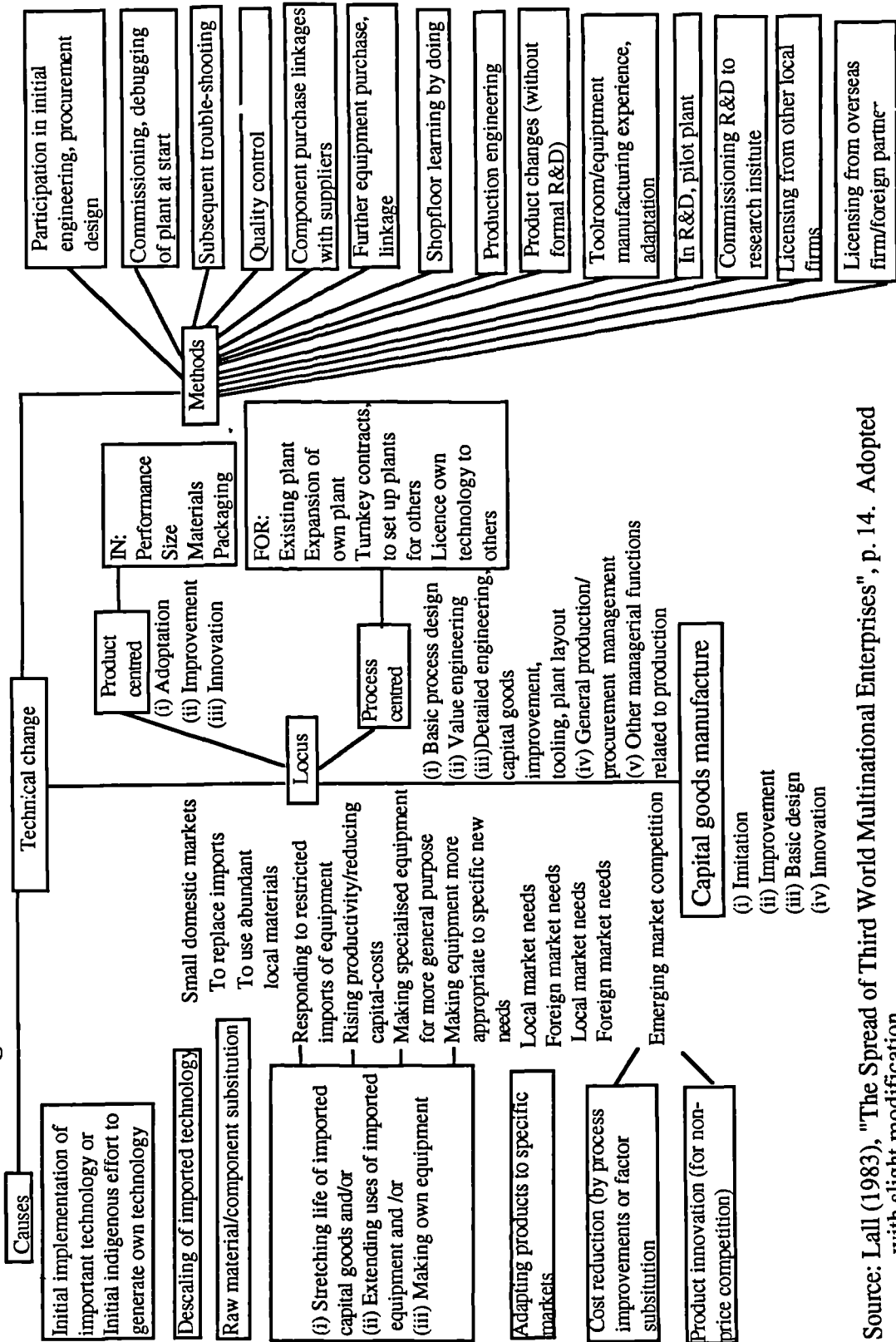
Figure 2.1 illustrates and summaries Lall's (1983) thesis.

It is also interesting to note that Dunning (1982, 1985) himself has tried to analyse FDI from developing countries by relating it to the relative expansion and development of countries within the international economy. This macro analytical framework which Dunning (1982, 1985) has developed is called the investment development cycle.

According to the investment development cycle (Dunning, 1985, 1981), an economy's propensity to engage in outward FDI depends on: (i) its stage of economic development;

- (ii) the structure of its domestic factor endowments and markets;
 - (iii) its political and economic system;
 - (iv) the degree of transactional market failure of intermediate products;
- and

Figure 2.1 A Model of Localised Technological Change



Source: Lall (1983), "The Spread of Third World Multinational Enterprises", p. 14. Adopted with slight modification.

(v) the extent, and the form of its economic, political and cultural interface with other countries.

Table 2.2A summaries Dunning's (1980, 1985) investment development cycle under these assumptions:

- (i) when the yardstick for measuring a country's economic development is its per capital income,
- (ii) when the economy in question is an open one and
- (iii) when a high degree of transactional market failure internationally exists.

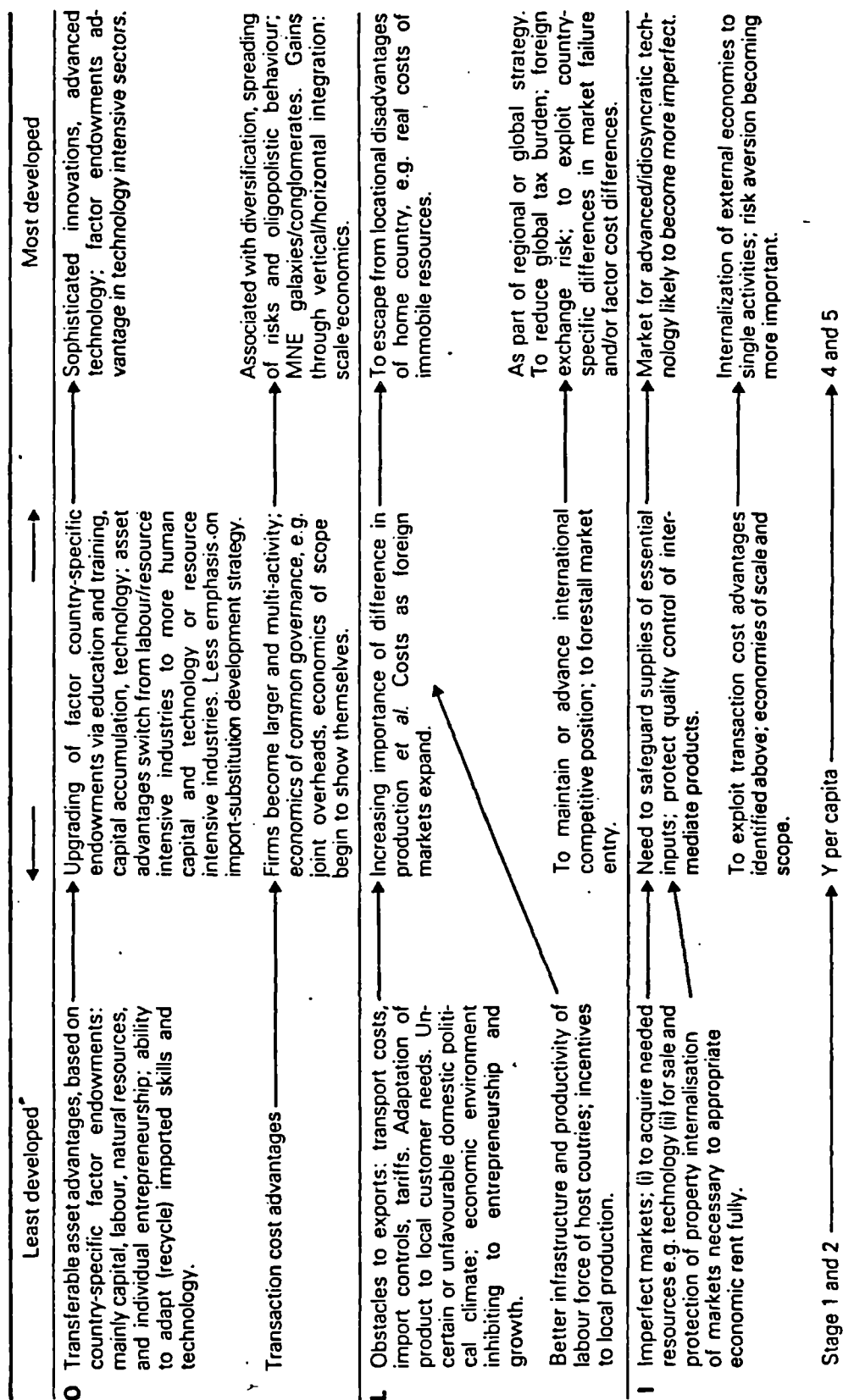
Table 2.2A Relationship of A Country's Investment Pattern and Stage of Economic Development: Dunning's Stages of Development Cycle

	Least Developed ----- Most Developed				
Stage of Economic Development	1	2	3	4	5
INWARD FDI	NIL/LOW	LOW	HIGH	HIGH	HIGH
OUTWARD FDI	NIL/LOW	NIL/LOW	LOW	HIGHER	HIGH
	Lowest -----Per Capita Income -----Highest				

Source: Illustration by this researcher

Table 2.3 is a summary of Dunning's argument (1985, 1982) of how the "OLI" characteristics may vary according to country, industry and firm specific variables, based on the concepts of the investment development cycle.

Table 2.3 Relationship Between OLI Advantages of Investing Country Firms and Development Stages



Source: Dunning, J. H. (1988), "Explaining International Production", p. 27.

2.2.7 Limitations of Dunning's Eclectic Theory

According to Itaki (1991, 1989), Casson (1987, 1986) and Buckley (1988), it is tautological to state that both the "Oa" and "Ia" are necessary conditions for FDI because the former already includes the latter. For example, Dunning (1989, 1988) appears to have failed to recognise that it is markets that are internalised and not the advantages themselves (Casson, 1987).

Moreover, the eclectic theory is criticised for being static in its approach and seems to take a firm's ownership advantages as given. It is unable to explain the firm-specific strategic-issues of FDI and firm behavioural issues such as the nature of management decision making in response to risk and uncertainty (Macharzina and Engelhard, 1991; Mainardi, 1987; Kindleberger, 1988).

2.2.8 Limitations of Dunning's Investment Development Cycle and Lall's Model of Localised Technological Change

"A major obstacle to research on developing country multinationals is the oft unwitting assumption that they represent a single generalisable phenomenon".

Buckley and Mirza (1988, p. 50)

Arguably, when the investment development cycle is applied to FDI on a global basis, it faces "a chicken and egg problem". For example, while it may be able to explain partially the current growth of outward FDI from

some developing countries, how can it explain the fact that some industrialised countries such as Britain, France and the Netherlands became net outward investors during the pre-war period without first becoming major inward recipients of FDI? What initiated FDI in these countries initially?

Dunning's model also fails to include the influence of an economy's historical/geographical background upon its FDI characteristics. For example, according to Dunning (1988, 1985, 1980), the reason why Singapore and Hong Kong are respectively the second and third largest Asian investor after Japan is because they are "both the wealthiest of the NICs" (Dunning, 1985, p.162). However, in the case of Hong Kong, there is empirical evidence to suggest that its outward FDI is very much influenced by its special economic and political relationship with China, and Hong Kong's controversial and uncertain future after 1997 (Selwyn, 1990, 1989). In addition, there is empirical evidence that the colony's FDI has also been spurred on by actual and threats of trade protectionism (e.g. exports of textiles and clothing) (Young and Hood, 1985).

Arguably, Singapore's historical entreport activities and its trading links with Malaysia before it became an independent state in 1965 may also have some influence over the nature and extent of Singaporean FDI (see **Chapter 4**).

As shown in **Table 2.3**, Dunning (1988, 1985, 1981) has applied micro derived variables (i.e. the "OLI") that influence firm behaviour at the

macro level without accounting for exogenous variables such as the strategic and competitive factors that may affect firms over time.

Buckley and Mirza (1991, 1988, 1986) argue that MNEs based in the four "tigers" can differ considerably with each other in strategic behaviour. Their motives for FDI and corporate strategies are very different from those of large established Western and Japanese but probably similar to those of small or less advanced multinationals from the developed nations. They even suggest, but without empirical evidence that "Singapore multinationals are generally the best examples of NIC multinationals (Buckley and Hafiz, 1988, p. 58).

Moreover, as argued by Macharzina and Engelhard (1991), the propensity of a firm's management to engage in FDI is encompassed in business oriented theory of a firm's behaviour. Thus, a country's degree of industrialisation can only be considered as a perceptual variable for the firm's decision-makers.

In other words, by using statistical aggregation to construct the linking variable between the individual perception of factor endowment differences and the real country-specific differences, Dunning (1988, 1985, 1980) may be over simplifying the dynamic process of FDI. For example, a survey by the World Bank (1989) found that 31 MNEs based in the four "tigers" engaged in FDI to mainly to regain competitiveness in major markets. For example, the five main factors motivating these Asian NIEs-based firms to undertake FDI include:

- (i) search for competitive advantage through the upgrading of technology and improvement in industry reputation;
- (ii) attempts to gain access to major markets;
- (iii) currency appreciation in the home country;
- (iv) increased real labour costs at home; and
- (v) procurement of raw materials.

Research by UNCTC (1988) and Young et al (1992) has also found that the prime motive for FDI by Korean MNEs is overcoming trade barriers in key markets. The World Bank (1989) also suggests that their sample of 31 MNEs have a high proportion of their total cross-border investment in East Asia because they are influenced by factors such as:

- (i) geographic proximity and familiarity;
- (ii) ethnic and cultural ties;
- (iii) favourable investment incentives;
- (iv) macro-economic and political stability in the host countries; and
- (v) local sales potential.

As for Lall's (1983) *Model of Localised Technological Change* (see **Figure 2.1**), it must be recognised that the model simply cannot be applied to FDI by Third World MNEs in the developed countries or "export platforms to third countries" types of FDI. For example, there is empirical evidence to suggest that Hong Kong MNEs have been induced to engage in FDI because of the need for export platforms for textiles, garments, and other light industrial (Chen 1984; Hood and Young, 1986). Moreover, it must be recognised that Lall's Model cannot be used to explain FDI by service-oriented MNEs from the developing countries.

In addition, there is also some empirical evidence (*Financial Times*, 15 December 1992; 1 December 1992; *Asian Business*, August 1992, June 1992, August 1991, Pyatt, 1992; Chen, 1983, 1984) that the "Chinese connections" or *Guanxi* enjoyed by ethnic Chinese-owned firms particularly from Hong Kong, Singapore and Taiwan influence their FDI decisions in China, Thailand, Malaysia and Indonesia.

According to a survey conducted by *Asian Business* (August 1992), education is also one of the key influence on Chinese-owned enterprises' FDI behaviour. For example the findings suggest that ethnic Chinese businessmen in East Asia countries such as Hong Kong, Indonesia, Malaysia, Singapore, Taiwan and Thailand like to send their children overseas to get the benefits of a Western education. But once in the West, their children also act as an information pipeline for overseas investment opportunities. In addition, their siblings will move on to manage their overseas assets after graduation.

Lastly, like all explanations based in the economic approach, Lall's Model has failed to take into account firm-specific factors such as corporate policies, resources and objectives.

(iii) The Late 1980s to Date: FDI as a Consequence of Transactional Costs rather than Locational Costs

"The modelling of dynamics is by no means complete and the issue of how best to deal with dynamic issues lies at the root of much of the current intra-Reading and extra-Reading controversies. The reintegration of the theory of the multinational enterprise with

the theory of finance, the theory of international trade and locational economics continues apace but is not yet complete".

Buckley and Casson (1990, p. xiii)

The emphasis of research on the explanation of FDI during this period is on the transactional aspects of market imperfections in international business that is based on the analytical frameworks of both the eclectic and internalisation theories (or paradigms) (Dunning, 1991, 1990, 1989, 1988; Buckley, 1991, 1990, 1988; Buckley and Casson, 1991; Casson, 1990; Hill and Kim; 1988; Anderson and Gatignon, 1986).

According to Buckley (1991) the internalisation theory has not yet fully encompassed the role of management decision making. It is recognised that a firm's reaction to uncertainty, its assessment of competition and its own competitive advantages at a given time are also crucial determining factors of the firm's business activities.

In other words, despite the theoretical advancement made since Hymer's seminal work in 1960, several issues remain unresolved. For example, the controversial difference in opinion between the internalisation theorists and the advocates of the eclectic paradigm. According to the former, Dunning's inclusion of both "Oa" and "Ia" as necessary conditions for FDI is tautological (e.g. Itaki, 1991, 1989; Buckley, 1988; Casson, 1987, 1986). On the other hand, Dunning maintains that the distinction between "Oa" and "Ia" is useful because there is a difference between "the capability of the MNEs to internalise markets, and their willingness to do so" (1988, p.3).

Dunning (1989, 1988) argues that the willingness of MNEs to internalise may explain why hierarchies rather than external markets (e.g. licensing or other forms of management contractual agreements) are the vehicles by which transactional "Oa" (Ot) are transferred overseas. However, so the argument goes, it is the capability of MNEs to internalise which explains why these Ot are exploited by one group of MNEs vis-a-vis other MNEs.

It is also argued here that Dunning's (1989, 1988) definitions of "Oa" and "Ia" may indeed be just facets of the same situation, and consequently, they sometimes appear ambiguous. It is important to recognise that the size of a firm's "Oa" and the extent to which this "Oa" can be transferred is determined by its ability to extract the maximum value added from the various factor inputs it utilises and the way in which it co-ordinates these factors of production in a particular locality. However, the distinction is useful when we consider that while some "Oa" may be internally generated (e.g. through product innovations or diversification), they can also be acquired by a firm (e.g. by a take-over of another local or foreign firm). It is presumed that the latter modality of FDI will add on to the acquiring firm's "Oa" vis-a-vis those of its competitors (including those of the acquired firm).

Another unresolved issue, which in this researcher's opinion is more pressing, is that both the internalisation and eclectic models are unable to explain satisfactorily the behavioural differences between firms in terms of strategic responses to their dynamic environmental factors (Macharzina and Engelhard, 1991; Kindleberger, 1988; Mainardi, 1987).

To a large extent, the proponents of these two models themselves also recognise this shortcoming. For example, Dunning suggests:

"Progress on advancing our understanding about the dynamics of foreign production has been less satisfactory the interface between the economic and behavioural theories of the firm needs more explicit and systematic analysis".

Dunning (1989, p.71)

Moreover, both Buckley and Casson (1990; Casson, 1990) suggest that the theory may also need to incorporate the concepts of entrepreneurship, culture and innovation. However, this researcher would argue that the concepts of entrepreneurship and innovation are perhaps useful where the environment is unpredictable and a firm's perception of risks and uncertainty may be crucial determining factors of the firm's behaviour. Differences in cultural attitudes may account for many transactions costs in the market for information because of social conventions regarding information and the appropriability of technology and not because of the technical problems of pricing the transactions of intermediate goods (e.g. expertise in marketing and production technology) (Casson (1984).

Furthermore, both the internalisation theorists and the advocates of the eclectic paradigm also generally accept the criticism that their economic models are unable to explain the level, structure and location of all types of FDI or capture the dynamics of all FDI activities over time. Indeed, in regard to the application of the eclectic paradigm, Dunning warns (1):

"precisely because of its generality, the eclectic paradigm has only limited power to explain or predict particular kinds of international production; and even less, the behaviour of individual enterprises".

Dunning (1988, p. 1)

Indeed, Dunning maintains:

"I have frequently argued that no single theory (of FDI) can be expected to encompass all kinds of foreign production satisfactorily, simply because the motivations for and the expectations of, such production vary so much".

Dunning (1991, pp. 124-125)

Lastly, there is some empirical evidence that cost of factors of production are no longer the prime determinants of FDI in the 1990s. For example, according to *International Finance Corporation*, the World Bank's private lending arm, foreign investors are more attracted by locational factors such as large market size, quality infrastructure and high level skills than cheap labour (*Financial Times*, 21 May 1992, p. 6). Another example is the "investment boom" experienced by Singapore despite the rise in its domestic production costs (*Economist*, 9 January 1993). It is reported that the island's main locational attractions are its highly educated managers, infrastructure and liberal foreign inward investment policies.

2.3 Summary of and Concluding Remarks on the Limitations of Economic Theories of FDI

The preceding chronological review of the economic theories of FDI has clearly illustrated that the validity of each theory or paradigm of FDI

needs to be considered against a specific time period and geographical location.

Moreover, for each individual firm, the explanation of its FDI activity needs to be linked to its specific motivations for FDI. It is important to emphasise and analyse an individual firm's motives for FDI because they are part and parcel of firm-specific strategic issues in management decision making which will ultimately shape the firm's response to its dynamic internal and external environmental opportunities and constraints. However, as shown above, attempts by economic theories to encompass these firm-strategic issues have been unsatisfactory.

Generally, to explain the FDI phenomenon, economic theories tend to focus on the "prerequisites of FDI" such as the need to possess monopolistic advantages or specific types of ownership advantages (e.g. *H-K* theory); specific aspects of market failure (e.g. internalisation and currency premium theory) or the interrelationships between the "OLI" variables for groups of firms/countries (e.g. the eclectic theory). **Table 2.3** provides an empirical example of how the motives for engaging in FDI within the same group of 15 UK firms may change over time.

Table 2.4 Factors behind FDI Decisions of Selected UK MNEs before 1966

Factor/Year	Pre-1914	1914-44	1945-66
	Percentage	of Cases	
Tariffs and/or host government pressure	29	38	7
Patent protection	17	--	--
Competitive behaviour	4	18	7
Market attraction/size	42	35	46
Unsatisfactory licensing agreement	--	6	7
Acquisition of another company	4	3	33
Others	4	--	--
Total no. of investment decisions	24	34	15

Source: Jones (1986), "British Multinationals", p. 8.

In summary, because the motives for FDI are so many and varied, no single theoretical approach on its own can possibly explain satisfactorily each and every FDI activity. For example, Vernon's PLC model (1979, 1974, 1966) cannot explain FDI that is resource-based; Aliber's currency premium theory (1983, 1971, 1970) cannot account for FDI within the same currency areas or cross-investment between different currency areas; Knickerbocker's "follow the leader" (1973) and Graham's "exchange of threat" (1978, 1974) explanation is relevant only to oligopolistic market conditions; Kojima's comparative advantage fails to explain either the recent rapid growth of Japanese FDI in the European Community and the USA in industries characterised by oligopolistic competition (e.g. automobiles and consumer electronics) or Japanese "offensive investment" in hi-tech sectors such as biotechnology and robotics industries (Kojima, 1978, 1979, 1982; Kojima and Ozawa, 1985); Caves's product differentiation theory (1971, 1970) is unable to account for the cost implications of geographical diversification; finally

but not least, the H-K theory, the eclectic and internalisation theory, like all the other preceding economic theories, fail to attend satisfactorily to individual investing firms' strategic-oriented issues and the dynamics of FDI (Hymer, 1976, Kindleberger, 1969; Dunning, 1991, 1989, 1988, 1988a, 1985, 1981, 1977), Buckley, 1991, 1990, 1987, 1983, 1983a; Buckley and Casson, 1990, 1985, 1981, 1976; Casson, 1987, 1986, 1985, 1981).

Table 2.5 outlines the main shortcomings of the major strands of economic theories of FDI.

It is little wonder that since 1985, Dunning has begun to emphasise that his general analytical framework of international production should be referred to as “the eclectic *paradigm*” rather than “the eclectic *theory*” (1991, p.133; 1985, p.20) and reminds his readers that the focus of the paradigm has always been on explaining the international production of “groups of firms and/or countries rather than the individual MNEs” (1991, p.117).

It must also be recognised that the advantages of the eclectic paradigm are not static. The strategic response of a specific individual firm to any particular configuration of the “OLI” may also affect the pattern and nature of these advantages at a sub sequential period of time.

Lastly, according to another group of business analysts (e.g. Porter, 1990, 1986, 1985), Ghoshal (1987), an MNE's configuration and co-ordination of value added activities is related to its global strategy which

is aiming at creating and sustaining its competitive advantages or in general, to its corporate strategic objectives.

The following section reviews and synthesises the literature on business strategy and policy by strategic business analysts such as Robbock and Simmonds (1983, 1985); Welch and Luostarinen (1988); Johanson and Vahlne (1977); Porter (1990, 1986, 1980); Ohmae (1990, 1985); Bartlett and Ghoshal (1989); Brooke (1986); Hill et al (1990); Young et al (1989); and Root (1987).

Table 2.5 Main Limitations of the Major Strands of Economic Theories of FDI

Theory/Author	Fails to Explain
<i>Vernon's PLC Model</i> Vernon (1983, 1974, 1966)	Resource-based FDI
<i>Currency Premium Theory</i> Aliber (1984, 1970, 1971)	FDI within the same currency areas or cross investment between different currency areas
<i>"Follow the Leader" or "Exchange of Threats" Theory</i> Knickerbocker (1973) Graham (1978, 1974)	FDI outside oligopolistic market conditions
<i>Comparative Advantage Theory</i> Kojima (1982, 1979, 1978); Kojima and Ozawa (1985)	Japanese "offensive investment" in hi-tech sectors (e.g. biotechnology and robotics industries) in Western Europe and the USA or FDI in industries (e.g. automobiles and electronics) characterised by oligopolistic competition
<i>Product Differentiation Theory</i> Caves (1971, 1970)	Cost implications of geographical diversification
<ul style="list-style-type: none"> • <i>Eclectic Theory/Paradigm</i> • <i>Internalisation / Transaction Cost Theory</i> • <i>H-K Theory</i> Buckley (1991); Buckley and Casson (1990, 1988, 1976), Casson (1990); Hennart (1982) Dunning (1991, 1990, 1988); Hymer (1976); Kindleberger (1968)	Individual investing MNEs' strategic-oriented motives and the dynamics of FDI*

* Applies to all economic theories of FDI

Source: Compiled by this researcher

2.4 Business Policy and Strategy Approaches

Unlike FDI theories based on the economics approach, the business policy and strategy approaches emphasise the nature of management decision-making, the role of corporate objectives and planning in influencing an individual firm's local and international business activities. Three main strands of explanations based on these approaches are reviewed:

- (i) stages of development model;
- (ii) geo-business model; and
- (iii) Porter's "diamond of factors" model.

(i) Stages of Development Model

According to some business analysts, there is some incremental, evolutionary and sequential process in firms' international involvement (Johanson and Vahlne, 1991; 1977; Welch and Luostarinen 1988; Luostarinen, 1979; Johanson and Wedersheim-Paul, 1975; Root, 1987; Brooke, 1986; Larimo, 1985). Four main stages of involvement have been identified in the "stages of development model" (2): (i) experimental, (ii) active, (iii) committed, and (iv) global involvement stage (Cavusgil, 1980; Young et al, 1989).

At the "toe in the water" stage, exporting by a firm is usually intermittent and marginal. Exporting is indirect and only very few foreign markets will be served. At this stage, export activities are considered to be marginal business (e.g. for its surplus production).

When the firm begins to explore systematically export prospects in a number of foreign market and foreign sales represent a larger share of sales, the firm is said to be in the active involvement stage. An export

marketing department may be formed at this stage to co-ordinate and integrate foreign sales with local production and demand.

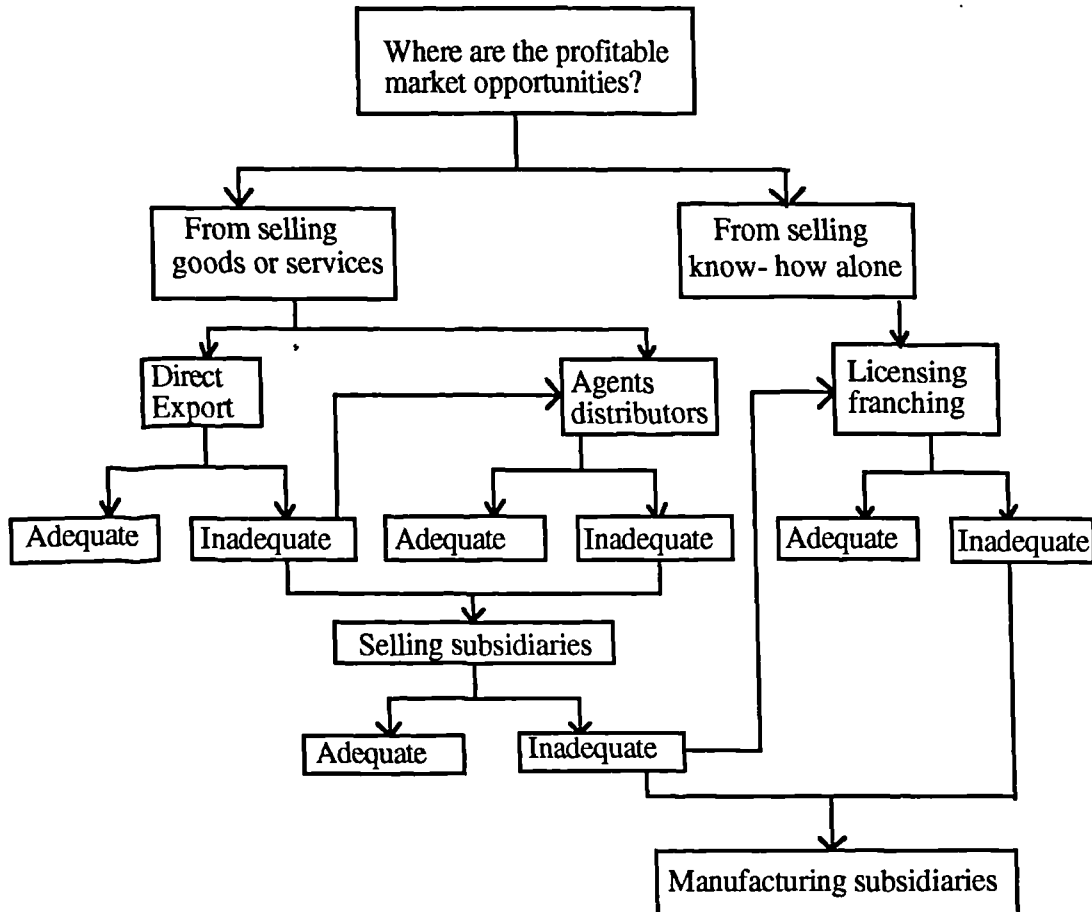
As the firm gains experience and becomes more familiar with its foreign markets, its commitment may deepen. The internationalisation process may continue with licensing and the setting up of production or sales subsidiaries in foreign markets.

Lastly, in its pursuit of competitive advantage, the firm may reach the global stage where it has a corporate global strategy with wide-ranging international activities and market servicing methods. Firms which appear to have reached this stage are large, established MNEs (e.g. *IBM*, *Sony* and *General Motors*). These are global competitors and they are likely to have a presence in the each of the Triad markets (Ohmae, 1985).

It is interesting to note that, the stages of development model on the behaviour of the MNE seems to support Bartlett and Ghoshal's hypothesis (1989) that the incentive to internationalise increases as an MNE expands its international operations. This is because the diversity of environments the MNE is exposed to, provides it with multiple stimuli and subsequently, allows it to develop capabilities and learning opportunities not open to the domestic firm.

Figure 2.2 illustrate how a firm gradually increases its internationalisation involvement which draws on the concepts expounded in the stages of development model.

Figure 2.2 The Foreign Market Entry Mode Decision Making Process



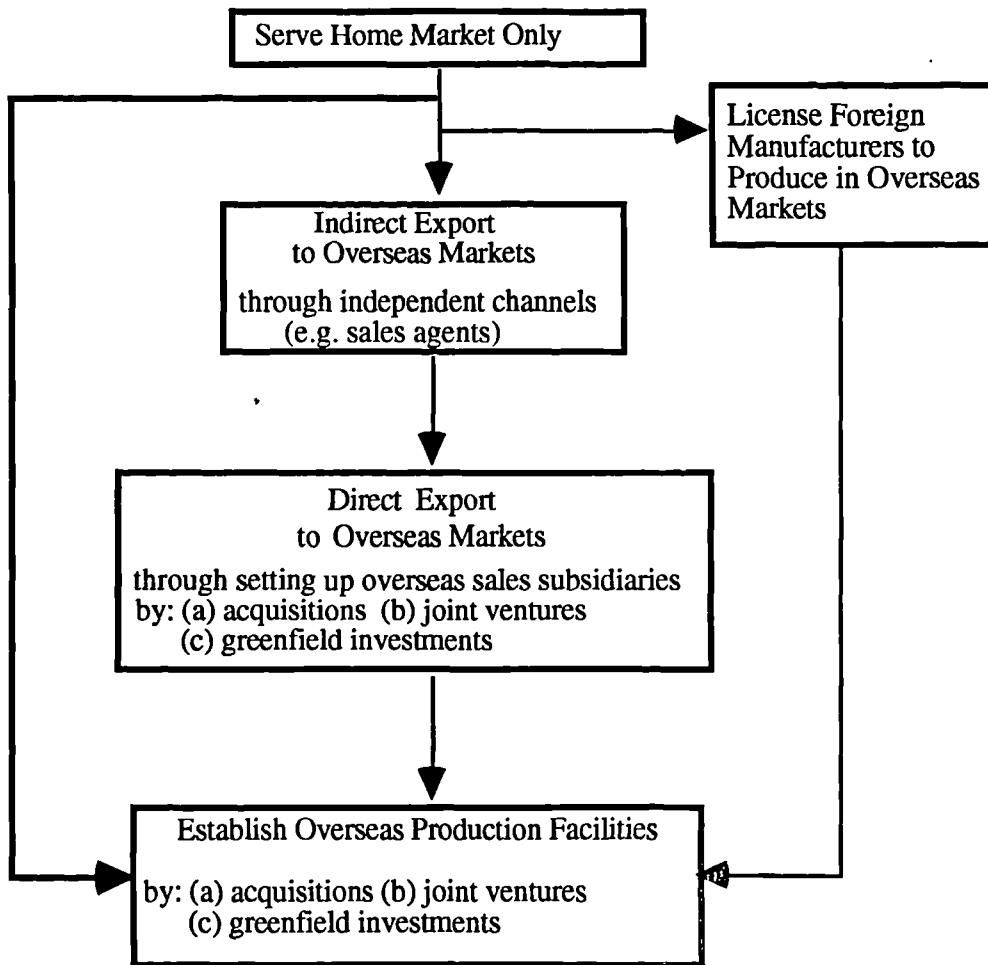
Source: Brooke, M. (1986), "International Management : A Review of Strategies and Operations", p.40.

The empirical evidence supporting the stages of development model comes largely from studies on the international operations of some Nordic-based companies (Johanson and Wedersheim-Paul, 1975; Johanson and Vahlne, 1977; Luostarinen, 1982, 1979; Larimo, 1985). In addition, some studies on the internationalisation of some MNEs based in

other countries also appear to support this incremental and evolutionary process of international involvement (e.g. Cavusgil and Godiwalla, 1982; Buckley and Robert, 1982; Buckley et al, 1982, 1979; Wells, 1984; Hood and Young, 1985).

Empirical evidence exists, however, offers weak support for this internationalisation model. Millington and Bayliss (1990) found that of a sample of 50 UK, 20 per cent had no previous experience of the market, 58 per cent jumped from licensing, direct export or agents to manufacturing subsidiaries. Hood and Young (1983) also found that a significant number of firms leapfrogged during the internationalisation process. For instance, 44 per cent of their sample of 140 American and Continental European subsidiaries in the British Isles had no involvement in the market prior to direct investment. This "direct route" to direct foreign production behaviour (see **Figure 2.2**) is also found in some Swedish firms entering the Japanese market (Hedlund and Kverneland, 1984) and in 39 per cent of the 228 cases of outward FDI by Australian firms (*Bureau of Industry Economics*, 1984).

Figure 2.3 Routes to Servicing Overseas Markets



Source: Dicken (1992), "Global Shift: The Internationalisation of Economic Activities", p.138. Adopted with slight modification.

One of the main criticisms of the stages of development model is that it is descriptive rather than explanatory. It fails to consider the fact that different foreign markets conditions (e.g. costs of inputs, infrastructure provisions, market size, government policy, degree of risk, degree of

product adaptation) may require different market entry or servicing strategies (Young et al, 1989).

Moreover, the mixed results obtained by some empirical studies (Millington and Bayliss, 1990; Cavusgil and Godiwalla, 1982; Buckley and Robert, 1982; Johanson and Vahlne, 1977; Luostarinen, 1982, 1979; Johanson and Wedersheim-Paul, 1975; Hood and Young, 1985) at different given points of time (i.e. the 1970s as against the 1980s) suggest that a combination of the firms' exogenous and endogenous factors needs to be considered to explain the diversity of routes taken by them in servicing their foreign markets.

Arguably, the applicability of the "stages of development" model is also limited in this rapidly changing environment of the 1990s when used to analyse the behaviour of some specific types of firms. For example, where hi-tech firms are concerned, in an era when product life cycles are shortening, such firms will need to react quickly to global marketing opportunity in order to sustain their competitive advantages over their foreign rivals as well as to recoup the high costs of R&D than that suggested in the model.

However, business analysts such as Robbock and Simmonds (1983, p.52) have enunciated that these advantages should be considered as merely "conditioning variables". In other words, they are pre-requisites but not sufficient conditions to explain a firm's decision to exploit these incentives to internalise by adopting an international business strategy such as FDI rather than using alternatives such as exporting, licensing,

franchising, or other forms of cross-border contractual management agreements.

(ii) Geo-business Model

According to the geo-business model (Robbock and Simmonds, 1983), a firm's perception of the benefits to be gained from its overseas operations and its relative competitive position (e.g. to its competitors' market servicing strategies and competitive advantages) are "motivating variables" which are also crucial factors in determining its cross-border activities (Robbock and Simmonds, 1983, p. 51). For example, if a firm's motives for cross-border activities are market-based or resource-based, it will engage in FDI activities which it perceives will enable it to gain economies of horizontal or vertical integration respectively. However, if the firm is seeking for efficiency in its production, cross-border activities may be undertaken where it perceives will enable it to reduce costs of inputs (e.g. with cheaper and at the same time higher skilled labour or better infrastructure provisions).

In the case of a firm wanting to acquire foreign technology, FDI may be undertaken in a location which enables it to gain access to skilled personnel or where it may undertake the types of operations (e.g. R&D or sales functions) necessary to acquire production technology or marketing intelligence that can then be used to achieve its other corporate objectives. In addition, FDI may be undertaken when there exists an opportunity to merge with, or acquire, a foreign firm which controls a technology the firm has been aiming to develop itself.

Lastly, for a firm seeking to avoid risk or defend its market, geographical diversification in direct production may enable it to minimise risks associated with fluctuations in currency exchange rates, disruptions in both supply of inputs and demand for its products.

Implicit in this so called geo-business model argument is that a rational firm with competitive advantages over firms in the prospective host country is likely to be motivated to fulfil its corporate objectives through FDI when the host country presents the opportunities which its home environment is unable to provide. In this sense, this model has helped to incorporate the role of strategic management decision making into the analytical framework for explaining some types of FDI activities (e.g. technology-seeking) which the preceding economic theories of FDI (see criticisms in sections 2.2 to 2.3) and the stages of development model have failed to address. On the other hand, this stages of development model appears to analyse in isolation each particular market entry mode decision and motive.

As noted by Hill et al (1990), a firm's choice of entry mode will depend on the strategic relationship the firm perceives between its multiple operational functions and its objectives in different countries. Trade-offs may be necessary where there conflicting objectives exist (e.g. between short term profitability and long term increase in market share). Ideally, a firm takes a systematic approach in analysing the alternatives to achieve its market entry and development objectives (Young et al, 1989).

Where there is uncertainty of the risks involved, managers' entrepreneurial drive may also be a crucial determining factors in a firm's choice for FDI against other alternative foreign market entry

modes. This perhaps explains why some authors have argued that the "rational-analytical" approach to business policy is not adopted in the "real world". According to them, firms adopt a "muddling through" or "satisficing" approach (Hogwood and Gunn, 1984; Lindblom, 1979; Simon, 1960).

Clearly, the analysis of the decision of a particular firm to internationalise its operations, the extent and modality of the firm's international involvement needs to be related to the firm's perception of the opportunities' and risks of its general internal and external environment. It also needs to take into account the enterprise's overall corporate objective or strategic-orientation. These factors are interdependent and interactive and will require the concepts of strategic management and corporate planning to supplement the explanations of FDI based exclusively on economics.

(iii) Porter's "Diamond of Factors" Model

Porter (1990), argues that to create or sustain competitive advantages through FDI, there is a "diamond of factors" which a firm needs to consider during the decision making process.

Figures 2.4 presents details of some of the firm- industry- and country-specific factors which Porter (1990) suggests will influence a firm's choice of its cross-border activities in a prospective host country. As shown, unlike the earlier models, this model looks at variables that reflect a prospective host country's innovation capacity and entrepreneurial dynamism. For example, locational specific factors such as firm structure (e.g. style of management), characteristics of related and supporting

**Figure 2.4 Factors to Consider in Choice of FDI Activities
in a Prospective Host Country**

Firm Strategy, Structure & Rivalry

- Does the style of management and prevailing types of organisational structures in the nation match industry needs?
- What types of strategies exploit national norms of organisation?
- Does the industry attract outstanding talent in the nation?
- Do investor goals fit in the competitive needs of the industry?
- Are there capable domestic rivals?

Factors Conditions

- Does the nation have particularly advanced or appropriate factors of production? In what segments? For what strategies?
- Does the nation have superior factor creation mechanisms in the industry (e.g. specialised university research programmes, outstanding educational institutions)?
- Are selective factor disadvantages in the nation leading indicators of foreign circumstances?

Demand Conditions

- Are the nation's buyers for the industry's products the most sophisticated or demanding? In what segments?
- Does the nation have unusual needs in the industry that are significant but will likely be ignored elsewhere?
- Do buyer needs in the nation anticipate those of other nations?
- Are the distribution channels in the nation sophisticated, and do they foreshadow international trends?

Related & Supporting Industries

- Does the nation have world-class supplier industries? For what segments?
- Are there strong positions in important related industries?

Source: Porter, M. (1990), "The Competitive Advantage of Nations, p. 603".

industries, the potential of the prospective host country's factor endowments and its demand conditions (e.g. the presence of superior factor creating mechanisms and sophisticated buyers) to create and sustain the firm's competitive advantages. In other words, the application of the relevant variables suggested in this model will help to capture the industrial dynamics of cross-border production such as innovation (3) which all economic theories of FDI have failed to do so.

Moreover, this model may be used to complement the economic approaches discussed earlier to explain a MNE's location of high value added activities such as R&D. There is already some empirical evidence that MNEs are globalising of their R&D activities, especially in the *Triad*. For example, since 1988, eleven European and US chemical MNEs have set up research laboratories in Japan's Tsu Kuba Science City. This place has a cluster of Government research institutes and universities (Japan Update, 1990). Another example is SKF's establishment of R&D facilities near to many leading German machinery industries and the auto sector (Porter, 1990).

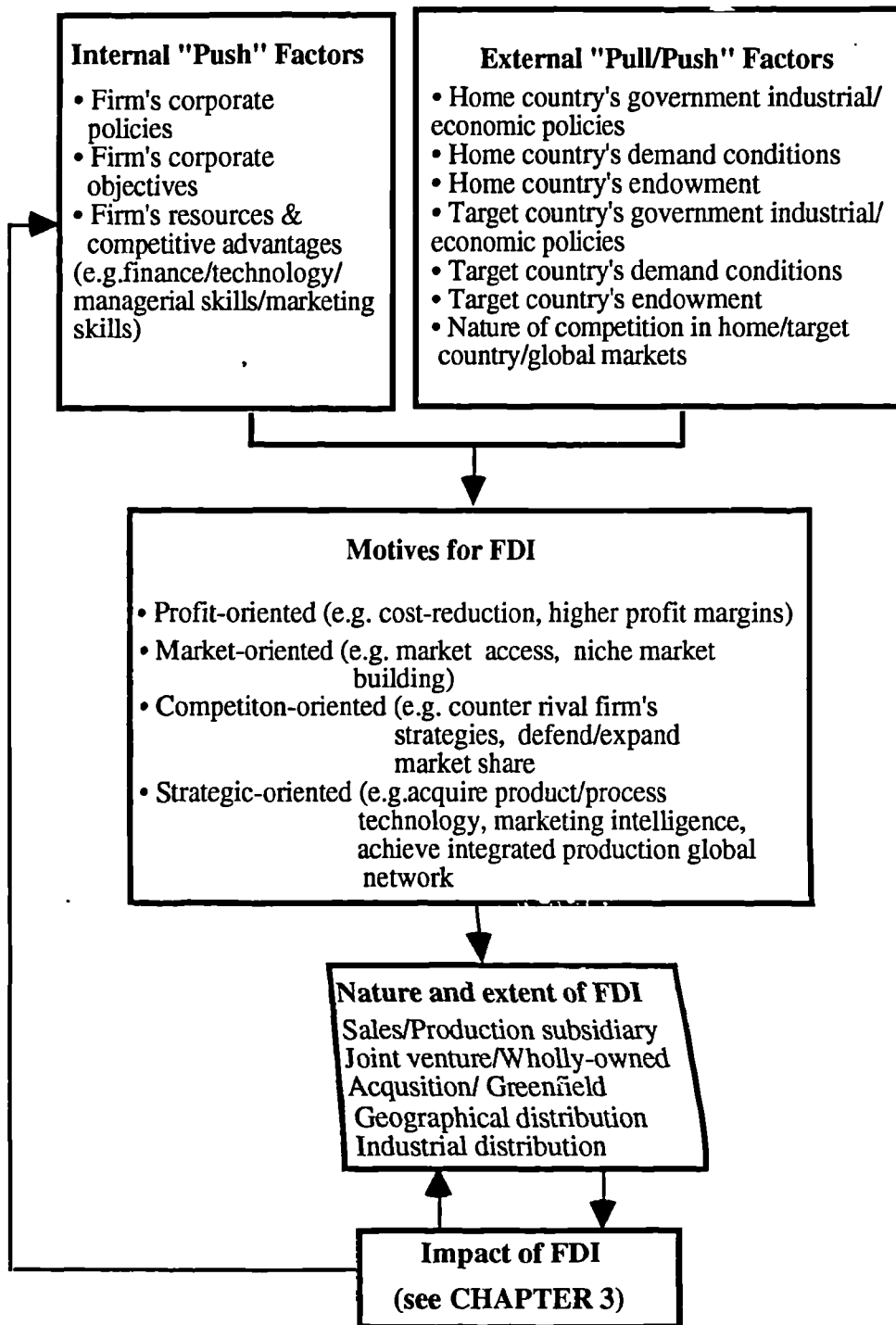
2.5 Summary and Conclusions

A wide range of variables, both endogenous and exogenous to the firm which have been identified in the literature to explain "why, where, how and when" a firm chooses to engage in FDI. However, it is important to recognise that the validity of each FDI theory very much depends on the time period of it is applied.

To explain or predict FDI and the behaviour of individual MNEs requires more than an economic approach. In other words, the complexity and the dynamics of today's international business activities and environment dictate that we take an interdisciplinary approach that is based on both economics as well as business strategy concepts to explain the FDI phenomenon.

As noted by Krausz and Miller (1974), it is quite acceptable to use a wide range of models in developing one's own contributions to a field of research. The preceding literature review has shown that explanations of FDI based on the economic approach has the inherent problem of being static. In addition, firm-specific strategic issues (e.g. a firm's non-profit oriented objectives) and the nature of management decision making tend to be ignored because the view is that a firm makes a rational rather than pragmatic choice. Thus, there is a need to supplement the explanations based on the economic approach with contributions using the business policy and strategy approaches to encompass the concepts of strategic management and planning. The latter will help to illuminate a firm's motives for engaging in a particular FDI activity (e.g. having only cross-border R&D facilities as against some or all of the other operational functions) and the firm's reaction to risks and uncertainty. **Figure 2.5** is

Figure 2.5 Explanation of FDI: A Dynamic and Integrated Analytical Framework



Source: Formulated by this researcher

an attempt by this researcher to integrate the internal and external environmental factors which may motivate a firm to engage in FDI based on the concepts which have been expounded in both the economic and business policy/strategy literature.

Figure 2.5 shows that in cases where the unit of analysis for particular types of FDI activities is the individual firm rather than a group of firms or countries, it is important to link the explanations of FDI to firm-strategic issues such as the particular individual firm's motivations for FDI or perceptions of the benefits to be gained from FDI. Arguably, the impact of a firm's initial FDI activities may have some influence on the firm's subsequent FDI characteristics and decisions. The following chapter (see **Chapter 3**) focuses on the impact of FDI upon an investing firm's performance.

Chapter Two

Notes

1. Dunning (1989) has also suggested that the internalisation theory be referred to as a paradigm rather than as a theory because the kind of market failure which determines one kind of foreign value added activity may be quite different from that of another. Although since 1985 (Dunning, 1985), in response to criticisms, Dunning has suggested that his eclectic analytical framework "be referred to as a paradigm", he himself refers to it as a general theory of FDI in some later publications (see Dunning, 1988, p. 9).

2. Because the keenest advocates of this model are largely from the Nordic countries, this model has also been called "the Uppsala Internationalisation Model" (Johanson and Vahlne, 1991, p. 11).

3. Innovation is defined in strategic terms as not only new manufacturing technologies but also new methods or ways of doing things, that sometimes appear quite mundane. It can be in the form of a new product design, a new production process, a new approach to marketing, or a new way of training employees or organising (e.g the division of labour). In short, it encompasses virtually "any activity in the value chain" (Porter, 1990, p. 579).

CHAPTER THREE

THE IMPACT OF FOREIGN DIRECT INVESTMENT UPON INVESTING FIRMS' PERFORMANCE

3.1 Introduction

The positive or negative impact of foreign direct investment (FDI) upon the performance of investing firms can be evaluated by using two broad sets of measures: (i) financial or quantitative and (ii) non-financial or qualitative variables.

This chapter begins with a critical review of the analytical framework used by previous researchers for evaluating the impact of FDI upon investing firms based on their financial performance *per se*. It then analyses those studies which have incorporated non-financial measures to evaluate the performance of overseas subsidiaries. Lastly, it outlines the various dimensions of the impact of FDI upon investing firms' performance and their contributory factors.

3.2. Impact of FDI upon the Investing Firms' Financial Performance

The empirical studies (Kim and Lyn, 1990; Collins, 1990; Grant, 1987; Michael and Shaked, 1986; Dunning, 1985; Yoshihawa, 1985; and Stopford and Dunning, 1983; Savary, 1984; Rugman, 1983; 1981) of a firm's performance overseas tend to focus primarily upon how a firm's FDI activities affect its financial performance *per se*. Moreover, the results of these empirical studies are not conclusive. The evaluation of the impact

of FDI upon the investing firms are also generally undertaken on the basis of their multinationality (e.g. comparing the performance between groups of non-MNEs and MNEs). The conclusions of these studies are also based on generalisations of an aggregation of findings.

Further research, where the unit of analysis is the individual investing firm rather than groups of MNEs needs to be done. This will provide a case-by-case evaluation of how individual organisational and firm-specific strategic issues are related to overall performance. **Table 3.1** summarises the findings of the empirical studies on the impact of FDI upon the performance of the investing firms using only financial or quantitative measures.

3.3 Limitations of Using Financial/Quantitative Measures

Table 3.1 shows that there is still a lack of strong empirical evidence that multinationality *per se* has a positive impact upon the financial performance of investing firms (Yoshihawa, 1985; Kumar, 1984; Rugman, 1983, 1981; Buckley et al, 1977). Generally, if straight comparisons are used, the results will show MNEs to be more profitable than non-MNEs (Grant, 1987; Dunning, 1985; Savary, 1984; Vernon, 1971). However, once the effects of other variables like size, advertising, R&D intensity and the industry of the firms studied are taken into consideration, the evidence is that FDI tends to be insignificantly or negatively related to the growth and profitability of the MNEs in question (Kim and Lyn, 1990; Rugman, 1983; Siddharthan and Lall, 1982; Horst, 1971).

It is also important to recognise that while financial variables such as profitability and sales turnover are very important measures of a firm's

Table 3.1 Impact of FDI upon the Investing Firms: Financial / Quantitative Measures

Research (Year)	Sample Size	Period of Analysis	Findings
A. Positive Impact			
Grant (1987)	304 UK MNEs	1973-1984	Profitability and sales among the UK manufacturing MNEs were positively related to their degree of multinationality and growth in overseas production.
Dunning (1985)	188 UK MNEs	1979	Overseas production was positively but insignificantly related to sales return.
Shaked (1986)	58 US MNEs & 43 non-MNEs	1980-1982	MNEs had lower risk in terms of probability of insolvency, equity variability and beta-coefficients.
Savary (1984)	155 French MNEs & 216 non-MNEs	1971-1974	Profitability of MNEs was higher than non-MNEs and it increased with the degree of multinationality. Size was positively related to the rate of return for non-MNEs as a group but not for MNEs.
Vernon (1971)	Fortune 500	1964	MNEs earn a higher sales return and post-tax return on assets than non-MNEs.
B. Negative Impact			
Kim & Lyn (1990)	54 foreign MNEs & 54 local US firms	1980-1984	Foreign owned MNEs in the US were less profitable than US domestic firms within the same industry. Performance of foreign MNEs also differed by country of origin. Japanese MNEs had the lowest profits and Western European MNEs had the highest. However, all MNEs spent more on R&D (especially the Japanese) than the local US firms. Among the MNEs, European MNEs spent the least on advertising and were the most debt ridden.
Collins (1990)	133 US MNEs listed in Fortune 500	1976-1985	Financial performance of MNEs in developing countries was inferior to both that of domestic firms and MNEs with FDI in developed countries. However, differences were not statistically significant.
Michel & Shaked (1986)	58 US MNEs & 43 US non-MNEs	1973-1982	Non-MNEs had higher risk-adjusted returns to stockholders than MNEs.

continue

Table 3.1 (continued)

Research (Year)	Sample Size	Period of Analysis	Findings
Rugman (1983)	50 largest US MNEs & 50 largest European MNEs	1970-1979	Neither European nor US MNEs earned abnormal profits. The majority of all MNEs had returns which were insignificantly different from all industry averages of their respective countries. European MNEs earned nearly 33% less than US MNEs which were of almost similar size.
Siddharthan & Lall (1982)	74 largest US MNEs	1976-1979	Overseas ratio had a negative influence on firm growth once firm size, advertising, R&D intensity, economies of scale and profitability were taken into account.
C. Mixed Impact			
Yoshihawa (1985)	118 largest Japanese firms	1980	MNEs earned higher return on equity than non-MNEs but experienced lower sales growth.
Kumar (1984)	672 UK listed firms	1972-1976	MNEs earned higher return on assets than non-MNEs but regression analysis showed overseas ratio to be negatively related to growth and profitability on sales.
Buckley et al (1977)	World's 100 largest MNEs	1962-1972	Firm growth and multinationality were positively correlated for the sub-period 1967 to 1972 but not the whole period of 1962 to 1972.
Hughes et al (1975)	46 US MNEs & 50 non-MNEs	1970-1972	MNEs had a lower average beta and average return to shareholder than non-MNEs but a higher risk adjusted return.
Horst (1971)	1192 US manufacturing firms	1967	Net profits were significant in determining whether or not a firm was multinational once size was taken into account.
Rugman (1981)	50 US MNEs & 50 non-MNEs in Fortune 500	1970-1979	Most US MNEs earned just normal profits. Of the 50 MNEs, only 2 had over 20% return on equity while 4 had profits which were 50% below the industry average return on equity. Around 20% of the non-MNEs made losses or earned under 5% return on equity.

Source: Derived and compiled by this researcher

performance, and are still the most widely used measure to assess performance in Western companies (Hamel and Prahalad, 1989; Rappaport, 1986; Whiting, 1985; Haynes and Abernathy, 1980), these measures in themselves have some inherent problems. Firstly, accounting standards and practices vary among countries and companies respectively. Arguably, profits can be quickly raised by trading off the present for the future. For example, in their recent study on 45 listed British companies which have gone bankrupt during the period 1988 to 1990, *Natwest WoodMac* found that most of these companies keenly applied creative accounting techniques such as off balance sheet finance, acquisition accounting and "reserve accounting" (where costs are charged against the balance sheet rather than against profits). These accounting techniques made it easier for these companies to report higher profits and harder for users of their accounts to know the real financial situation of the companies (*Financial Times*, May 26 1991, p. IV). For instance, instead of showing an operational loss of £15mn in 1988, *Polly Peck* chose to write off reserves of £170mn and subsequently was able to report a profit of £155mn in 1988, making it appear to be one of the most successful British companies in the 1980s. It is little wonder that this "excellent company" (rated as Britain's top company by *Management Today* for the period 1983 to 1985) collapsed in 1990. Similarly, it was found of the 43 "excellent companies" identified by Peters and Waterman (1982), only 14 were excellent five years later, and eight years on only six were deemed excellent (Pascale, 1990).

Secondly, in the context of MNEs, it must also be recognised that their profits may be affected by intra-firm transfer pricing practices and difficulties associated with foreign exchange conversion and fluctuations

particularly in the short run (Choi, 1991; Lee and Belvin, 1990; ISAR, 1990; Grant, 1987; Ghoshal, 1985; Rugman and Eden, 1985; Yunker, 1982; Benke, 1980; Bartlett, 1977; Dunning, 1974). In the case of difficulty associated with exchange rate fluctuations, it was reported that since 1980, *Yeo Hiap Seng Limited*, a Singaporean MNE (which has direct manufacturing investment in North America and some Asian countries) has written off US \$10.7mn against its capital reserves due to exchange rate adjustments. In 1991 alone, losses on currency conversion totalled US \$1.34m at the pre-tax level (*Business Times*, March 21 1992). In short, while the "bottom line" is indeed a very important measure of a firm's performance, it should not be the sole measure used to evaluate the impact of FDI upon an investing firm's performance. Performance is a multi-dimensional concept. Seeking to maximise on one measure involves costs in others (Doyle, 1991, 1992).

In the context of crossborder operations, undue emphasis on profitability as measure of the impact of FDI upon an investing MNE's performance will not reflect the accomplishment of other strategic objectives (e.g. to achieve long-term market share, counter competition and/or enhance its technological supremacy). It is possible that pursuing these goals may lower the profitability of the firm in the short-term but have a positive impact on the firm's financial and non-financial performance in the long term.

Consider, for example, Kim and Lyn (1990) who suggest that foreign firms in the USA do not necessarily possess any monopolistic advantages over local US firms in a specific industry (i.e. contrary to the explanations given in conventional FDI theories). These foreign firms may be investing in the

in conventional FDI theories). These foreign firms may be investing in the USA to "buy in" monopolistic advantages (e.g. advanced technology and marketing intelligence). Arguably, in such cases, the achievement of FDI objectives by the firms or the "feedback" gains to the firms cannot be captured in profit figures alone. There is therefore a need to use qualitative or non-financial measures as well. However, Kim and Lyn (1990), in common with the other researchers (see **Table 3.1**), have not studied the impact from a qualitative or non-financial perspective. This is understandable due to the fact that FDI is primarily seen as a vehicle for a firm to exploit its superior technology or other monopolistic advantages rather than a possible means to acquire monopolistic advantages and subsequently, enhance the firm's overall competitive advantage (see **Chapter 2**).

Moreover, the empirical evidence on the financial impact of FDI, based on statistical generalisation of an aggregation of data, is also inconclusive. The findings simply cannot be used to analyse the spin-off effects which FDI may have on the investing firm's manufacturing technology, management skills, marketing methods or human resource management. They also do not show how and why some firms benefit from their FDI but others do not. The empirical studies which are concerned with finding answers to some aspects of these variables are scarce (Li and Guisinger, 1991; Jones, 1986; Buckley et al, 1988, 1983; Davenport-Hines, 1986, 1986a; Tweedale, 1986; Habib and Victor, 1991).

The following section evaluates the contributions of these empirical studies which have incorporated non-financial measures to evaluate the performance of the subsidiaries of MNEs.

3.4 The Multi-dimensional Aspects of an MNE's Performance

Jones (1986, 1986a, 1986b) stresses that an MNE's "success" or "failure" in its overseas ventures may not necessarily be reflected in its profit figures. The ventures may be considered successful in technical terms. For example, Jones' (1986b) findings suggest that *Courtaulds'* German and Italian subsidiaries achieved significant technological advances which were transferred back to their British parent company. Indeed, these benefitted the parent company, even if they are not measurable in monetary terms. Similarly, according to Tweedale (1986), despite poor commercial reward of *Sheffield's* investment in the USA for the period 1830 to 1930, the technological gains made by the subsidiaries in speciality steel manufacturing were substantial. However, studies by Davenport-Hines (1986) on Vickers' FDI in during the period 1897-1945 has also shown that over emphasis on technological gains of FDI over costings also will not give a clear picture of the benefits of FDI.

While Jones (1986), Tweedale (1986) and Davenport-Hines (1986) have all used the case study approach in their research, their conclusions are only based on the information collected from the archival records of large British MNEs for the period 1890 to 1945. The nature of international business in the 1990s is very different from that of the period before the Second World War. More up to date studies need to be done on this subject.

The following sections consider the wide range of factors which may influence the configuration of an investing firm's value added activities, and which inevitably have implications on the investing firm's performance. These factors such as the its motives for FDI, nature and

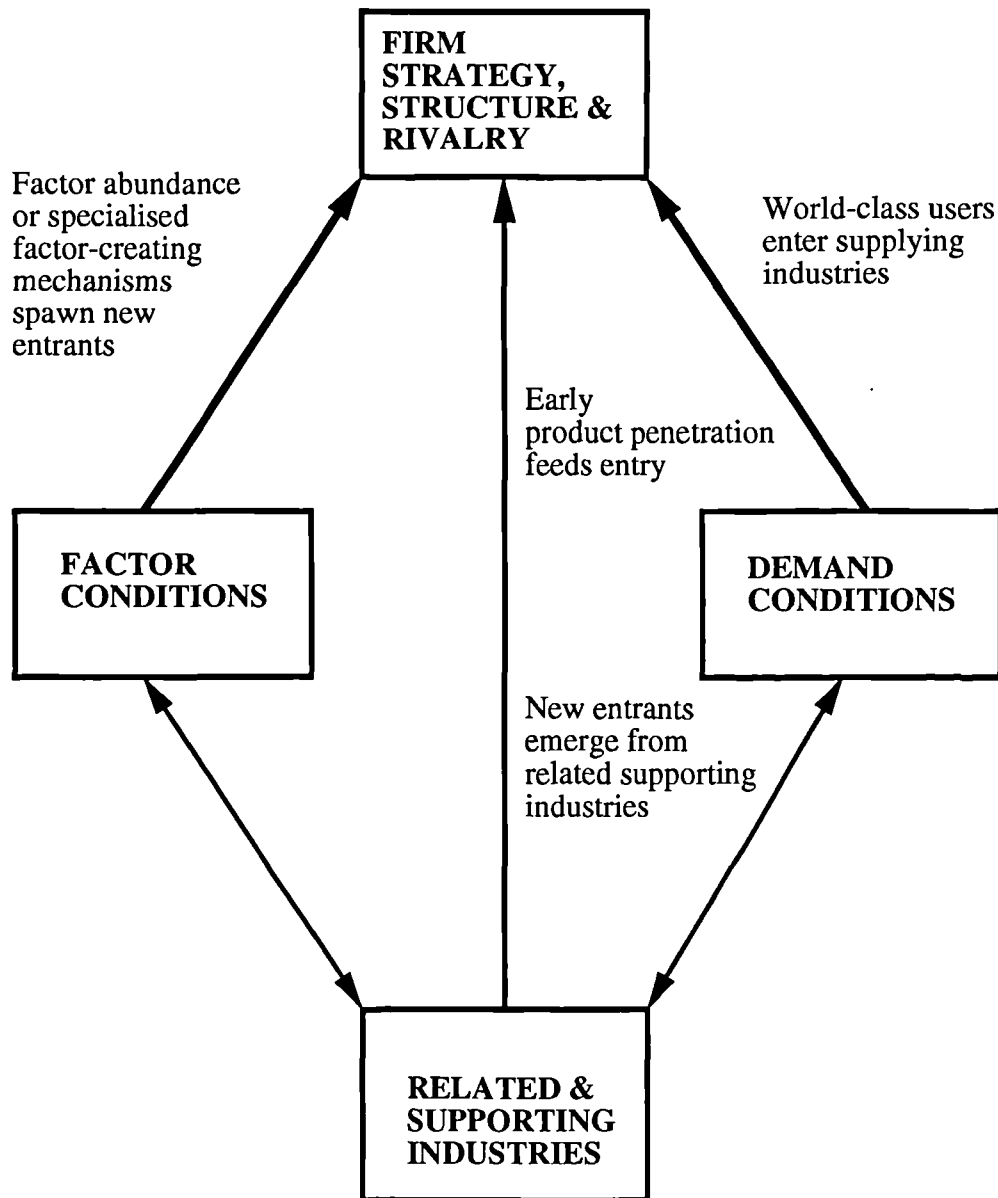
extent of its FDI activities and some related managerial issues.

3.5 MNE's Motives for FDI, Types of FDI Activities and Performance: The Links

Modern firms are multi-functional and have multiple objectives (Doyle, 1992; Manu, 1992; Buckley, 1991; Porter, 1990; Kume, 1990; Young et al, 1989; Barlett and Ghoshal, 1989, 1987; Fransico, 1982). A particular firm may undertake FDI in a specific location because it perceives the host country's environment can help it gain competitive advantage over its home or foreign rival firms in certain operational functions within its own organisational structure. This argument is in line with Porter's assertion (1990) that certain nations have special attributes that are conducive to the development of competitive advantage in certain industries (see **Figure 3.1**)

In other words, a firm may locate in a country if it perceives its environment will be able to provide it with better ongoing information and deeper insight into the product and process needs (i.e. marketing intelligence) than its home country. For example, it can be said that the factor endowment, domestic related industries and home demand conditions in Italy are conducive to the development of high fashion footwear and apparel industries while the Swiss environment and the American "Silicon Valley" is conducive to the development of superior technology in the watch industry and electronics industry respectively. This argument is also in line with some preliminary findings indicating that there has been a tendency for firms to agglomerate their technological activities in international "centres of excellence" in R&D (Cantwell, 1991; Cantwell and Dunning, 1991).

Figure 3.1 Influences of Environmental Conditions



Source: Porter (1990), "The Competitive Advantage of Nations, p.133, adopted with slight modifications

According to Cantwell (1991), general economies of agglomeration may be the most important reason that led to the further development of these established research centres. Thus, it must be recognised that the positive or negative impact of such FDI ventures on the parent company cannot be captured in profit figures alone in the short-term. Indeed, even if these ventures are successful in technical terms, it is reasonable to expect that the R&D expenses incurred may lower the overall profitability of the investing firm until the subsidiary's the innovations are fully commercialised.

Moreover, an MNE will only be able to enjoy the benefits of its multinationality if it is able to view its foreign operations as strategic components of an integrated system of value added activities. It also needs to recognise that the contributions made by a unit in the system may sometimes have to be at the expense of the unit's own direct operating profit, return on sales or investment (Simmonds, 1985; Kim and Manborgne, 1988) .

Furthermore, a firm's choice of international entry mode is influenced by the strategic relationship it envisages between its operations in different countries (Kim and Hwang, 1992; Hill et al, 1990; Watson, 1982). It follows, therefore, that to achieve an agreed strategic objective (e.g. to sustain its competitiveness through technological leadership or high market share) via the FDI route may hinder the attainment of other objectives within some of its operational units (e.g. the finance department) for a period of time.

In other words, as noted by Doyle (1992), Young et al (1989) and Ghoshal (1987), some corporate objectives may be in conflict with each other (e.g.

short-term profits against long-term market share). Trade-offs may be necessary when a firm chooses to enter a foreign market via the FDI route and these, subsequently have an impact on its performance in overseas markets. For example, a firm may have to accept some trade-offs between its security and profitability. Such "cross-subsidisation" strategies have also been adopted by *3M*, *Kodak* and *Texas Instruments* to gain competitive advantage against their Japanese rival companies (Allino, 1989; Kim and Mauborgne, 1988; and Hamel and Prahalad, 1985) and *Courtaulds* against its Continental European competitors (Jones, 1986).

Some empirical research (Kume, 1991; Kotabe and Okoronofo 1990; Doyle et al 1986; Yoshiwara, 1985; Dymza, 1984) has also suggested that Japanese companies tend to take a longer strategic management perspective than US or European MNEs. FDI is, in most cases, undertaken to achieve long-term competitive and market-oriented corporate objectives at the expense of their financial performance for a period of time (e.g. as many as seven years for Honda).

In addition, research on recent FDI by NIEs-based firms (Merritt, 1991, Young et al, 1991; McDermott, 1991; Young, 1990; McCormick, 1990; McDermott and Young, 1989; Kwag, 1987; Kim and Tespatra, 1984) have also implicitly suggested that Korean- and Taiwanese-based firms see their overseas operations as effective agents for the acquisition of advanced technology, managerial skills and marketing intelligence (i.e. ownership specific advantages) or as a means to invest in their future security. Arguably, when a firm "invests in its future" (Cox, 1980) via the FDI route, the impact of FDI upon its performance needs to be seen in terms of the long-run benefits the firm perceives it has gained.

Barlett and Ghoshal (1989) argues that the diversity of environments an MNE operates in exposes it to multiple stimuli and allows it to develop capabilities and learning opportunities not open to domestic firms. However, this hypothesis has not been subject to rigorous testing (Dunning, 1989).

The following section reviews previous studies which have incorporated qualitative measures to assess groups of MNEs' performance. It also provides performance measures which this researcher proposes for assessing the impact of FDI upon individual investing firms' performance.

3.6 Measures of Impact of FDI upon the Investing Firm's Performance

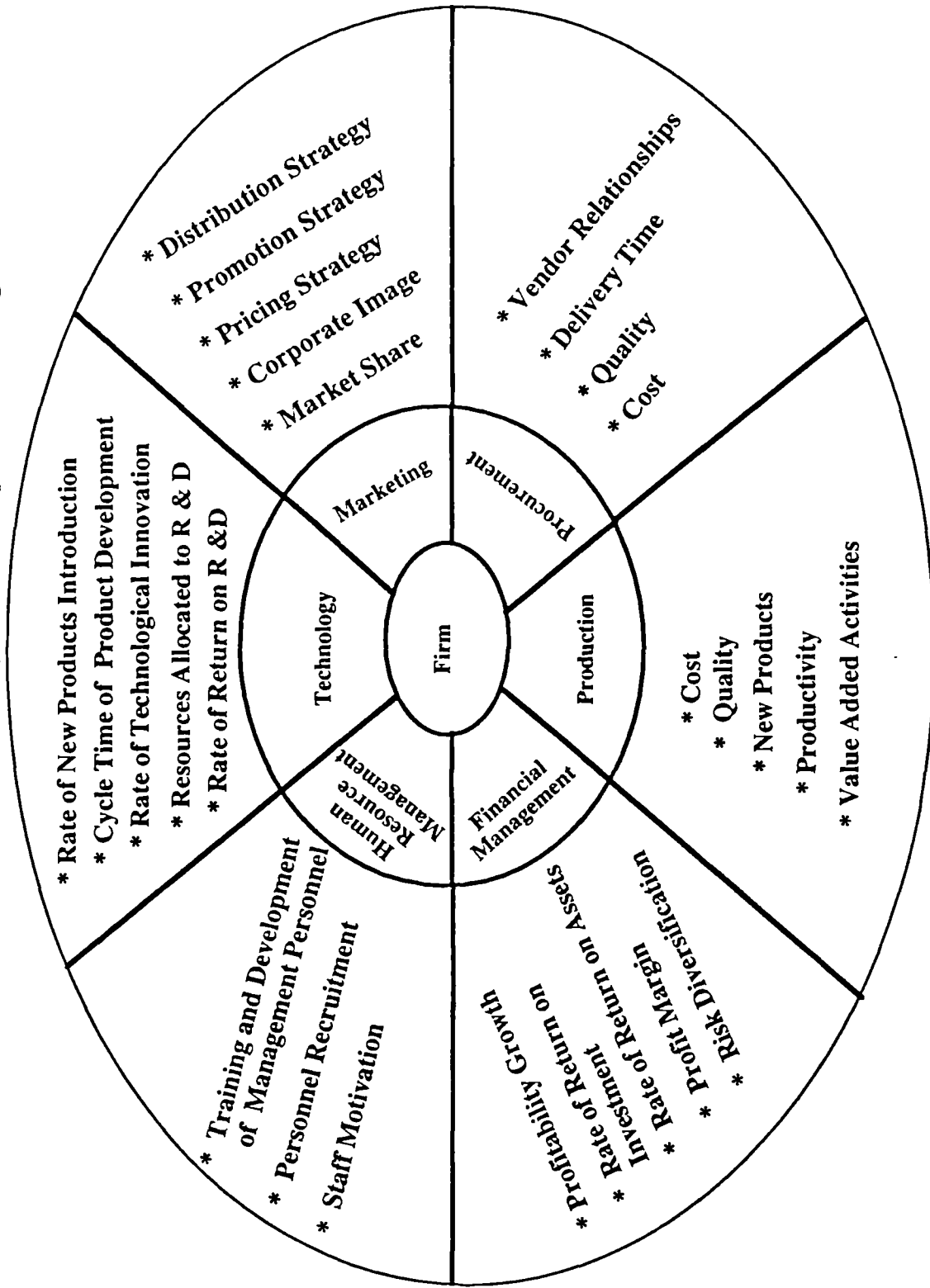
Based on the notion that firms are multi-functional and have multiple FDI objectives, it is clear that, in addition to using profitability as a measure of impact of FDI upon its performance, qualitative measures need to be used to capture the spin-off effects which FDI can have on its operational and organisational performance. A composite yardstick comprising both financial and non-financial measures is clearly a more plausible measure of an MNE's performance. For example, Buckley et al (1988) use profitability, growth, perceived success (or failure), market share and operational performance to evaluate the performance of the overseas subsidiaries of a sample of UK and Continental firms. However, Buckley et al (1988) rely on statistical generalisations of aggregate data collected from groups of MNEs. To gain better insights on how firm-specific strategic and organisational factors are related to the impact of FDI upon an MNE's performance, the unit of analysis must be the individual MNE rather than groups of MNEs as a whole.

The positive impact of FDI upon a particular MNE's non-financial or qualitative performance can be judged in terms of meeting the following criteria:

- (i) Acquisition of new technology;
- (ii) Development of a pool of highly skilled "international managers" within the company;
- (iii) Improvement in the flow of and quality of information on foreign markets, competition and opportunity (i.e. as an outpost for gathering marketing intelligence for pricing, product, distribution and promotion strategies);
- (vi) Improvement in the investing firm's corporate image;
- (v) Increased efficiency in the co-ordination and integration of manufacturing, marketing, financial, human resource management functions; and
- (vi) Diversification of risks.

Figure 3.2 illustrates the multiple measures which can be used to evaluate the impact of FDI upon an investing MNE's both financial/quantitative and non-financial/qualitative performance. However, it is not enough to know whether FDI has a positive or negative impact upon an investing MNE's performance in such dimensions as its manufacturing technology, marketing, human resource management, and financial management. It is also important to consider the factors which may have influenced the performance of the MNE's overseas venture in addition to its multinationality or the act of FDI *per se*. The following section considers the influence of these factors, exogenous and endogenous to the investing firm, which may have an impact on the investing firm's financial and non-

Figure 3.2 Measures of the Impact of FDI upon the Investing Firms



Source: Formulated by this researcher

financial performance.

3.7 Factors Influencing an Investing Firm's Performance

It has been suggested that internationalisation generally feeds upon and contributes to the development of the knowledge, skills and experience of the management involved (Welch and Luostarinen, 1988; Johanson and Vahlne, 1977; Barlett and Ghoshal, 1989). Implicit in this argument is that international business is not merely an extension of an MNE's domestic business. There are some managerial related issues in cross-border activities which may differ significantly to those in domestic operations. "Learning by doing" also contributes to management development (Tanaka, 1989; Margerison and Kakabadse, 1986 and Margerison, 1980). It is therefore important for an MNE to have some understanding of how some firm-specific and situational contingencies related to its cross-border operations may influence its performance (Guisinger and Li, 1991; Buckley et al, 1988; Jones, 1986a, 1986b) For example, an MNE's performance can be influenced by any of the following factors:

- (i) The MNE's preparation and feasibility studies prior to embarking on FDI;
- (ii) The MNE's international business experience (e.g. prior experience in dealing with a diversity of market conditions through exporting, international subcontracting before setting up a subsidiary, age of subsidiary; geographical diversity of FDI activities);
- (ii) The MNE's management structure (by function, product, region or division);
- (iii) The amount of preparation made by the firm prior to making its FDI decision;

- (iv) The mode of entry of FDI (e.g. whether by acquisition, joint venture or greenfield investment);
- (v) The types of FDI activities (e.g. whether they involve the complete production operation or merely the assembly, R&D or sales and marketing function only);
- (vi) The firm's motives for FDI;
- (vii) The degree of control the parent company has on its overseas subsidiaries in operational functions such as finance, personnel recruitment and training and R&D; and
- (viii) The choice of chief executive officer in the overseas subsidiary.

There is still a lack of strong empirical evidence on how the above stated factors can influence the an MNE's performance in its overseas market. For example, studies by Li and Guisinger (1991) have found that the age of a foreign subsidiary in the USA is positively related to its profitability. For instance, 70% of the 85 business failures examined by Li and Guisinger (1991) occurred within the first five years of the initial investment. Moreover, Buckley et al (1988) found that firms which have prior experience in foreign markets (e.g. via exporting or other international contractual management agreement) tend to be more successful in their FDI ventures. However, this correlation is not supported by findings of case studies on *Dunlop*, *Cadbury*, *Courtaulds* (Jones, 1986a, 1986b) and *Vickers* (Davenport-Hines, 1986).

According to Jones' findings (1986a, 1986b), the subsidiaries of *Dunlop* in the USA and *Cadbury* in Australia and Canada had negative returns on investment for two decades despite their prior experience as successful exporters in these markets. In the case of *Vickers*, its overall FDI

"experience for many years past was that whenever any of our money had gone abroad, we did not easily see it again" (Davenport-Hines, 1986, p. 68)(3). On the other hand, both Cadbury's subsidiaries in New Zealand and South Africa, and *Courtaulds'* subsidiary in the USA were earning huge profits within the first year of their operations.

Little research has also been conducted on how the mode of entry of direct investment will influence a subsidiary's performance (Kim and Lyn, 1991; Hamill, 1991). According to Li and Guisinger (1991), foreign acquisitions of US firms are more likely to fail than foreign greenfield investments. In addition, according to a recent survey (Montagu-Pollock, 1992), fewer than 5% of the Asian companies who bought into the USA have achieved all their objectives. Despite the evidence, it is still unclear if the mode of entry into FDI *per se* (e.g. whether by joint venture, acquisition, greenfield) has a direct impact on the performance of particular individual investing firm. Love and Scouller (1990) argue that it is not acquisitions in themselves that result in very low success rate but rather diversifying acquisitions have a low success factor. Shelton (1988) has also shown that firms which acquire companies related to its core businesses have higher success rate. However, these studies do not differentiate the firms' performance in the context of whether they are domestic or crossborder acquisitions (Hamill, 1991). Young et al (1989) suggests that international acquisitions suffer from higher failure rate and have more problems than unational acquisitions. However, there is still no strong empirical evidence from detailed case studies to support this suggestion.

In the case of joint venture, research by Beamish (1988) has found that 61% of the joint ventures in his sample of US MNEs in developing

countries tend to fail. According to Kogut (1988), crossborder joint ventures tend to have higher mortality rate than domestic joint ventures. For example, 68 per cent of his sample of 158 firms were terminated within a six-year period compared to 56 per cent for domestic ventures. On the other hand, Chowdbury (1992) shows mainly mixed results. Moreover, case studies by Jones (1986) has revealed many spectacularly successful cases.

In Jones' view (1986a, 1986b)), endogenous factors such as "the size and durability of the advantage held by a firm in its markets seemed crucial" to the performance of its overseas subsidiaries (Jones, 1986, p. 109). Jones (1986) suggests that the main reason why British manufacturing MNEs were unable to sustain and develop their overseas subsidiaries during the period 1890 to 1945 was because they were too slow or failed to develop appropriate management structures for their multinational operations. Thus, they did not perform up to the expectations of their parent companies. However, research by Habib and Victor (1991) on the relationship between organisational structure and performance of manufacturing MNEs show mixed results.

Moreover, Buckley et al (1988) found that the groups of Continental European firms which have derived benefits from their FDI activities in the UK generally attributed their success to: (i) the thoroughness of their preparation into the UK, market, (ii) their attention to work-force needs and (iii) their utilisation of high technology and innovation.

In summary, an amalgamation of firm-specific issues and factors exogenous to the firm will interact with each other and influence its

performance. There is still no conclusive evidence to allow us to generalise on which factors are the most crucial.

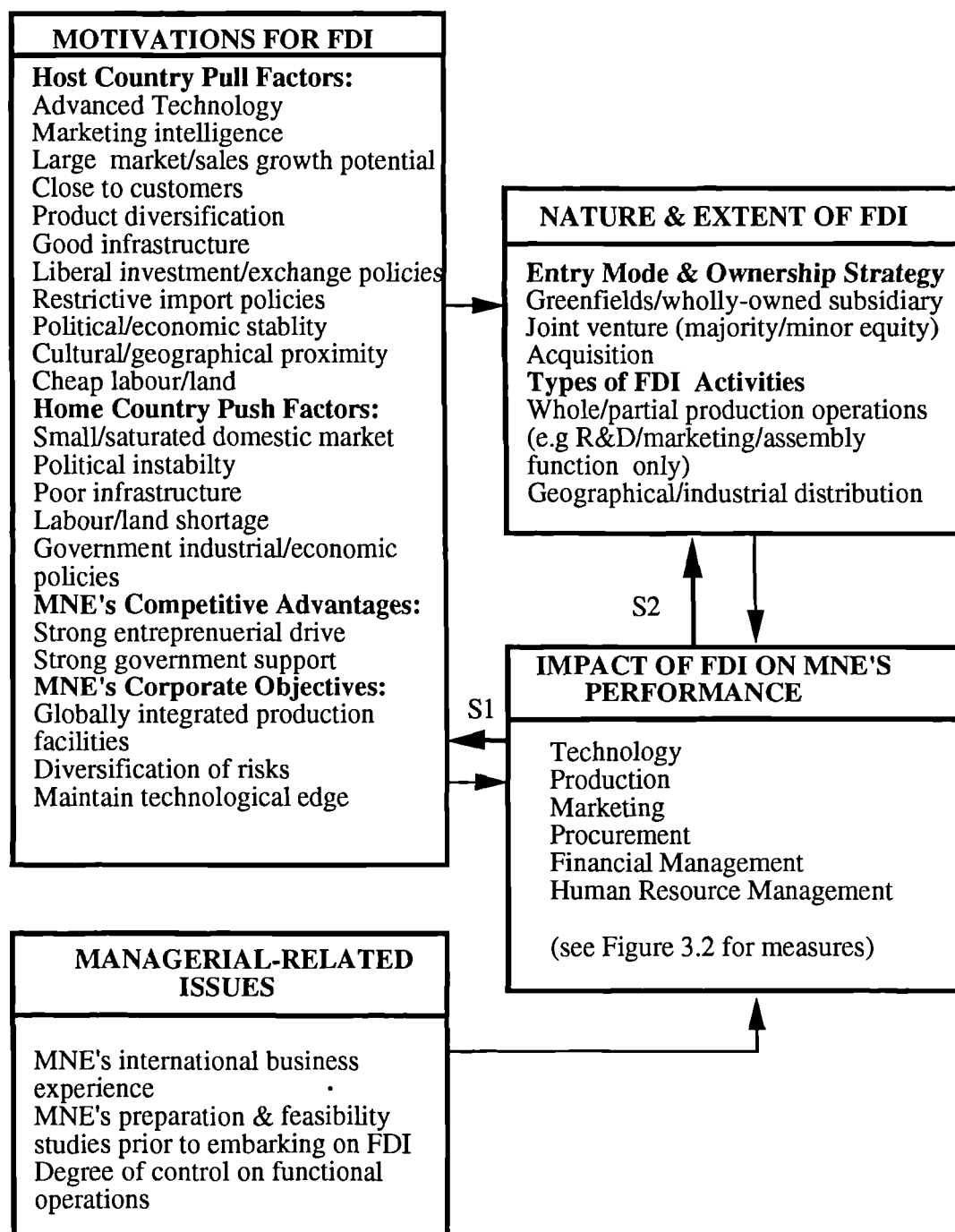
3.8 Conclusions

Both financial or quantitative and non-financial or qualitative measures need to be used to evaluate the impact of FDI upon an investing firm's performance (see **Figure 3.2**). Most studies tend to focus exclusively on the impact of FDI upon the investing firm's financial performance (see **Table 3.1**). Moreover, the evidence from these studies is based on generalisations of an aggregation of findings. Further research needs to be conducted using the case study approach. Doing so may provide deeper insights into why, and how, some firms benefit from their FDI activities and some do not.

Based on the existing theoretical and empirical literature, the analytical framework for the impact of FDI upon a Singaporean MNE's performance has been proposed. It is hypothesised that a Singaporean MNE's motives for FDI, the nature and extent of Singaporean and some managerial related issues, could have an impact upon the outcomes of its FDI (see **Figure 3.3**). There is still a lack of strong empirical evidence in the published literature to show how the interactive and interdependent relationships of these broad sets of variables can have an impact upon an investing firm's performance.

The following chapter, **Chapter 4**, gives an overview of the industrial sector of the Singapore economy.

**Figure 3.3 The Impact of FDI on an Investing Firm's Performance:
An Analytical Framework**



Note: S1 & S2 refer to subsequent FDI decisions and characteristics

Source: Formulated by this researcher

CHAPTER FOUR

THE SINGAPORE ECONOMY: AN OVERVIEW

"All companies with business investments abroad are and have been shaped by economic and other conditions in their homeland, and only subsequently, by the economic and other conditions in the countries abroad in which they did business."

Wilkins (1990), p.521.

4.1 Introduction

The literature review in **Chapter 2** has established that a firm's home country's environment (see summary in **Figure 2.4**) has a significant influence on its initial FDI decisions and characteristics.

This chapter aims to give an overview of Singapore's industrial structure and economic development since 1961, the year Singapore's industrialisation programme was first launched. It begins with a brief account of Singapore's geographical, political and economic background. This is followed by a review of Singapore's industrialisation strategies and the progress it has made over the last three decades. Detailed statistics are presented to provide an overview of how the economic and industrial structure has evolved since 1960. The recent relative performance of the other three "Tigers" are also presented to highlight the strengths and weaknesses of the Singapore economy by comparison. In addition, some concerns and issues on Singapore's development prospects are discussed. The chapter concludes with a *SWOT* analysis of the Singapore economy.

4.2 Background

Historical records on ancient Singapore are sketchy. It was described as *Pu-luo-chung* or "island at the end of a peninsula" in a third-century Chinese account. In 1365, it was referred to as *Temasek* or "Sea Town" in a Javanese archive called *Nagarakretagama*. By the end of the 14th century, it was commonly known by its Sanskrit name, *Singapura* or the "Lion City" from which it derived its present name, "Singapore".

In 1819, Singapore was established as a British trading post by the *East Indies Company* and its entrepot trade thrived. In 1832, it became the centre of the *Straits Settlements* (with Penang and Malacca of the Malaya Peninsula) before it was turned into a British Crown Colony in 1867. In 1959, it gained its self-government status.

The island merged with Malaya, Sabah and Sarawak in 1963 to form the Federation of Malaysia. However, because of mutually unacceptable differences, it broke away from Malaysia in 1965 and became an "unwilling" independent nation and since then, the Republic has been under the government of a single political party, the *People Action Party* (*PAP*). This party currently holds 77 of the 81 seats in Parliament.

Unlike the other "three Tigers", Singapore is a multi-racial society, where 78 per cent of its population are Chinese, 14 per cent are Malays and 7 per cent are Indians (Singapore Department of Statistics, 1992). While in 1947, more than half of the population consisted of "first generation" immigrants from China, India and the Malay-Indonesian archipelago, the demography has changed drastically since then. By the end of 1991, almost 80 per cent of its total population of 2.76 million were born in

Singapore and around 65 per cent of the population are under the age of 19 (Singapore Department of Statistics Census of Population, 1992).

4.3 Review of Singapore's Economic and Industrial Development

To understand the background of Singapore's outward investment and its development to date, it is necessary to review its economic development strategy and industrial policy.

4.3.1 The Colonial and Pre-industrialisation Era: 1867-1961

Traditionally, because of its strategic location and natural deep-water harbour, entrepot trade and the British military services together formed the main lifeline of the Singapore economy. Trade consisted mainly of imports of primary products from the Southeast Asia region re-exported to the industrialised countries. All these trading activities were carried out under laissez-faire trade policies (Lim, 1984; Chia, 1984; *Singapore Facts and Figures*, 1968).

Throughout 1867 to 1961, the manufacturing sector accounted for less than 10 per cent of Singapore's GDP. (Singapore Department of Statistics, 1983; Hughes and You, 1969). Thus, unlike South Korea and Taiwan, the internationalisation of the Singapore economy (i.e. through entrepot trade) began long before the development of its manufacturing industries. The development of the secondary sector through the natural evolution of resource-processing industries was inhibited by its total lack of natural resources and agrarian produce. There was not enough land to make farming viable.

Moreover, labour-intensive and basic domestic industries (e.g. garments and textiles) which commonly characterise the initial phase of industrialisation in most economies, were constrained by the high wages in the entrepot sector (Lim, 1984; Chia, 1984).

Lastly, while a small domestic market hindered the development of industries with scale economies, there was no industrial policy to diversify its service-oriented economy (i.e. dominated by entrepot trade) or to promote large scale export-oriented manufacturing activities that could have spin-off effects on the Singapore economy.

4.4 Industrialisation Strategies and Progress after 1961

Unlike many Asian developing countries, Singapore does not have an official "blue print" which sets out in detail the country's objectives (e.g. South Korea has a 5-year; Taiwan a 4-year; and Malaysia a 10-year plan). National objectives are only specified in general qualitative terms by various official economic committees (see **Table 4.1**). Some recent examples include:

- (i) "*Vision for Singapore: 1999*" formulated in 1984,
- (ii) "*The Singapore Economy: New Directions*" charted by the Economic Committee in 1986;
- (iii) "*Agenda for Action*" introduced in 1988 and
- (iv) "*Strategic Economic Plan*" (*SEP*) announced in October 1991 by the Economic Planning Committee.

In addition, the latest official publication, entitled "*Singapore: The Next Lap*" presents a comprehensive outline of the general aspirations of the

Committee of Ministers of State and plans of the Singapore government on the whole beyond 1999 in 160 pages (The Government of Singapore, 1991).

Singapore's industrialisation has gone through several distinct phases. The main phases have been:

- (i) 1961 to the mid 1970s;
- (ii) the late 1970s to 1985; and
- (iii) the late 1980s to date.

The following sub-sections analyse the economic and industrial strategies of Singapore and the development it made over these three periods in turn.

Table 4.1 Singapore's National Plans and Objectives, 1984-1993

Title of Plan (Year)	Formulated by	Objectives/Strategies/Programme
<i>(i) Vision for Singapore : 1999</i> (1984)	Mr Goh Chok Tong, Chairman, PAP (PAP General Election Manifesto)	<ul style="list-style-type: none"> • Attain Swiss standard of living • Every family owns a home • It is fun to live • Universities throb with bright ideas • All people have an opportunity to develop to the fullest.
<i>(ii) The Singapore Economy: New Directions</i> (1986)	<i>The Economic Committee</i>	<ul style="list-style-type: none"> • Allocate resources correctly to productive purposes • Maintain a high savings rate (e.g. around 40% of GDP) • Depend on the private sector • Promote offshore activities • Nurture both MNEs & local companies • Create a conducive business environment, e.g.: <ul style="list-style-type: none"> (i) competitive costs, (ii) low corporate and income taxes, (iii) friendly regulations; and (iv) good work attitudes.

continue

Table 4.1 (continued)

<p>(iii) Strategic Economic Plan (1991-1993)</p>	<p>Economic Planning Committee</p>	<p>MTI: • Maintain international competitiveness:- form competitiveness monitoring group</p> <p>EDB: • Enhance human resources:- implement international manpower programme</p> <p>NPB: • Enhance national teamwork:- establish MTI Economic Panel</p> <p>MOL & MTI: • Create innovation-oriented climate:- review government rules which hinder innovation • Develop industry & service clusters:-a)implement cluster-based development plans; b) hold cluster workshops to discuss plans; c) improve employer-employee ties; d) improve overall labour supply and demand situation</p> <p>EDB/NPB: • Redevelop domestic industries & services:-set up multi-agency task force</p> <p>MTI & EDB: • Reduce vulnerability:- a) form scenario analysis group; b) inculcate positive mindset in government agencies towards local firms; c) review institutional support for local firms; d) identify & monitor medium & long-term economic performance indicators; e) encourage multinational firms to set up home base in Singapore</p> <p>EDB & NCB: • Develop international orientation:- a) get Singaporean to work abroad; b) promote the Growth triangle and regional alliances; c) develop information infrastructure, internationally and at home.</p>
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Keys: **MTI** - Ministry of Trade and Industry; **EDB** - Economic Development Board; **NCB** - National Computer Board; **NPB** - National Productivity Board; **MOL** - Ministry of Labour

Sources: *The Economic Committee* (1986), "The Singapore Economy", *The Straits Times*, (October, 1992, p. 36); The Singapore Government (1992), "Singapore: The Next Lap".

4.4.1 1961 to the mid-1970s: Focus on Inward Investment and Labour-Intensive Manufacturing Activities

Indeed, with a population growing at an annual rate of about 5 percent and unemployment rate running at around 10 percent in the late 1950s and early 1960s, Singapore's policy makers believed that relying on domestic commercial entrepreneurs to become industrial entrepreneurs or to play a major role in the industrialisation process would be too slow and uncertain (1). For example, in 1961, there were only two locally-owned factories in Singapore which had exporting activities (Singapore Department of Statistics, 1983). Therefore, they focused on attracting inward investment.

During this period, the industrialisation strategy can be said to be synonymous to inward foreign investment strategy. Singapore's zealous support to encourage inflows of foreign capital and expertise at the outset of its industrialisation process could perhaps be explained by the absence of a strong manufacturing sector.

In 1963, proposals were made to form the *Federation of Malaysian States*, a common market through political merger with Malaya, Sabah and Sarawak. It was felt then that the common market would provide a large enough market for Singapore's nascent industries under the protection of an import substitution industrialisation policy. However, the common market failed to materialise following Singapore's traumatic break from the *Federation* in 1965 to become a fully independent city state. Consequently, the industrialisation strategy had to focus on not just attracting foreign labour-intensive enterprise to mop up unemployment but also those which could gain access to the international markets.

With the impending withdrawal of the British military forces, whose expenditure amounted to 15 per cent of Singapore's GDP and 7 per cent employment in 1967, further steps were taken to attract inward foreign direct investment (FDI). These included the provision of efficient official administrative support (e.g. the formation of EDB as a one-stop information centre for all interested investors), restrictive labour legislation, restructuring of the educational system and school curriculum to provide for more technically trained manpower, and the liberalisation of foreign capital inflows and outflows.

Moreover, MNEs found Singapore's environment favourable because it had no restrictions on equity participation, the repatriation of capital and profits, the value of local content and the employment of different nationals to meet a firm's manpower requirements (Economic Development Board; 1986/87; Chia, 1984).

This strategy of focusing on attracting foreign investors in labour-intensive and export-oriented manufacturing industries was effective in bringing about rapid economic growth. GDP grew at around an average of 9 per cent annually between 1960 to 1970. Indeed, full employment was achieved by 1970 (see **Table 4.2**). The proportion of domestic exports to total exports increased from a mere 6 per cent in 1960 to 39 per cent in 1970 (see **Table 4.3**). However, official records (i.e. from the Singapore Department of Statistics) of cross-border investment undertaken by Singaporean firms was, however, only available from 1976 onwards (2). Thus it is unclear what the magnitude of Singaporean overseas investment was between 1960 to mid-1970.

4.4.2 The late 1970s to 1985: Promotion of High Value Added Activities

Overall, the rapid economic growth rates and diversification of the economy which characterised the 1960s and early 1970s (see **Table 4.2**) continued in this period. For example, from 1976 to 1980, exports grew by an average of 15 per cent annually. The manufacturing sector accounted for a third of the GDP in 1980 compared to a tenth in 1960 (see **Table 4.2A**).

By 1980, Singapore's indigenous per capita income (i.e. excluding expatriates' income) was S\$9,940 (US \$4,710) (3). In real terms, its per capita income grew at an average of 7 per cent annually for the period 1960 to 1980, resulting in a quadrupling of incomes in two decades (Singapore Department of Statistics, 1990).

With unemployment and population growth under control (see **Table 4.2**), Singapore's priorities changed and emphasis switched to promoting investments in knowledge and skill-intensive industries.

Table 4.2 The Singapore Economy: Some Indicators of Growth

Indicators	1960	1970	1980	1988	1989	1990	1991	1992
Land area (sq/km)	581.5	586.4	617.8	625.6	625.6	625.7	625.9	626.5
Population (mn)	1.65	2.07	2.41	2.64	2.69	2.73	2.76	2.76
Growth (%)*	2.4	1.5	1.2	1.5	1.4	1.3	1.2	1.3
Unemployment	4.9	6.0	3.0	2.9	2.8	1.2	1.9	2.7
GDP (S\$mn)	1.99	5.81	25.09	42.04	52.68	57.07	60.89	64.42
Growth (%)	8.7@	9.4@	9.7	11.0	9.2	8.3	6.7	5.8
Per capita income (S\$)	1330	2825	10411	13387	14859	16226	20650	22033
Inflation (%)	1.2	5.6	8.5	1.5	1.9	2.1	2.9	2.4
Index of production	NA	12.1	12.1	12.5	10.1	9.9	5.5	3.5
Productivity (%)	NA	4.3	6.0	4.5	4.2	4.1	1.5	3.1
Total Trade (S\$bn)	7.56	12.29	105.66	167.28	183.98	205.01	216.07	250.0
Exports (S\$bn)	2.17	4.76	92.79	88.23	87.12	95.21	101.87	128.95
Imports (S\$bn)	4.38	7.53	41.45	79.05	96.86	109.81	114.20	131.46
Gross National Savings (as % of GDP)	NA	19.3	34.2	42.0	43.0	45.3	45.8	46.4
Balance of Payment (S\$bn)	NA	0.14	0.57	3.34	5.33	9.89	7.26	9.96
Foreign Reserves (S\$bn)	NA	3.1	13.8	33.2	36.9	40.2	55.8	65.8

* Refer to annual average change

@ Figures show the average annual growth rate for the decade

Sources: Singapore Economic Development Board (EDB) Research and Statistics Unit; Singapore Department of Statistics.

Table 4.2A Singapore's Sectoral Output, 1960-1992
(Percentage share of GDP)

Industry	1960	1970	1980	1985	1990	1991	1992
Manufacturing	11.3	20.0	29.1	23.6	28.8	28.9	28.6
Financial & Business Services	13.8	16.2	19.6	27.4	29.5	30.5	30.1
Commerce	32.1	27.1	21.7	17.2	17.5	17.9	16.2
Transport & Communication	13.3	10.6	14.7	13.4	14.2	13.2	12.5
Construction	3.4	6.8	6.9	10.6	5.3	4.7	5.3
Utilities	2.3	2.6	2.3	2.2	2.1	2.3	2.2
Agriculture, Fishing & Quarrying	3.8	2.6	3.5	1.0	0.5	1.0	0.9
Others	20.0	14.1	2.2	2.2	4.6	2.5	2.2

Source: Singapore Department of Statistics

Table 4.3 Changing Structure of Singapore's Exports (1960-1992)

Items/Year	1992	1991	1990	1989	1988	1980	1970	1960
Total Exports (S\$bn)	28.95	01.87	95.21	87.12	88.23	92.79	4.76	3.48
Percentage (%) share								
Domestic Exports								
Oil	67	65	66	64	65	62	39	6
Non-oil	10	12	18	28	31	34	23	NA
	57	53	48	36	34	28	16	NA
Re-exports	33	35	34	36	35	38	61	94
Total Per cent	100	100	100	100	100	100	100	100

Source: Singapore Trade and Development Board

More importantly, the existing labour-intensive businesses were encouraged by the Singapore government (through the EDB) to move to other countries or increase their productivity significantly through automation. This was because the government was targeting hi-tech industries for domestic growth. It also deliberately pursued a high-wage policy. For example, through the *National Wage Council*, it recommended wage annual increases of between 10 to 15 per cent from 1979 to 1983. The rationale behind this policy was that it believed the employers were hoarding labour, because it was relatively cheap. All these investment policy changes could partially influence the outflows of Singaporean FDI during this period to nearby countries.

For the period 1981 to 1984, however, there was a slowdown of exports from an annual average of around 15 per cent to 5 per cent. Many foreign MNEs also rationalised their production and some relocated their facilities to other countries where production costs were much lower than in Singapore (*Economic Committee*, 1986). Eventually, in 1985 Singapore entered into a recession, for the first time since it became independent (see **Table 4.4**).

**Table 4.4 Growth Rate of Singapore's GDP,
1959-1991**

Period/Year	Growth
1959 - 69	9.0 *
1970 - 79	15.1 *
1980 - 84	8.4 *
1985	-1.8
1986	1.8
1987	9.4
1988	11.1
1989	9.2
1990	8.3
1991	6.7
1992	5.8

* Average annual figures only

Source: Singapore Economic Development Board Research and Statistics Unit; Singapore Department of Statistics.

4.4.3 1985 to date: Promotion of Local Enterprenuership and Outward Investment to Complement Singapore's Inward Investment- and Export-Led Growth

"Too comfortable, no one wants to go abroad.....we have got to shake Singaporeans up, make them more adventurous, or we will be losers".

Lee Kuan Yew, Senior Minister (*Financial Times*, 20 January 1993, p.4)

1985 was indeed a watershed year for the Singapore economy. The recession of that year (i.e. when its GDP shrunk by 1.8%) prompted the policy makers to question their strategy of relying so heavily on inward FDI and foreign expertise as Singapore's industrial and economic engine of growth (4). Various committees and strategic business units were

therefore set up by the EDB to identify new directions for Singapore's economic growth in the 1990s (e.g. the *Economic Committee*, the *Small and Medium-Sized Enterprise (SME) Committee*, the *International (Outward) Direct Investment Unit (IDI)* and the *Economic Planning Committee*).

Studies made by these committees found that although the government did not make any distinction between foreign-owned and locally-owned firms in Singapore, the existing investment incentives programme inevitably tended to benefit the former (*Economic Committee*, 1986; and *SME Committee*, 1989). For example, they found that foreign MNEs, by virtue of their size and nature of operations would usually have the necessary criteria to qualify for the incentives (see **Table 4.5**). Consequently, during this period, the promotion of local entrepreneurship became a key component of Singapore's industrial and economic development strategy.

Arguably, for the first time since 1961, the government recognised that for Singapore to attain the status of a developed country by the turn of the century, it must have a core of high-calibre entrepreneurs and indigenous world class enterprises capable of matching their counterparts in industrialised countries (5). The argument for this change of industrial strategy was that in a downturn, local companies would look further for new markets than foreign MNEs. The latter might merely rationalise their production in Singapore in line with their world-wide strategies during such an event (*Economic Committee*, 1986).

Table 4.5 Tax Incentives Administered by the Singapore Economic Development Board

Tax Incentives	Qualifying Activities	Minimum Requirements	Tax Concessions
Operational Headquarter (OHQ)	Approved headquarter operations	Operational Headquarter: 1. should manage related companies outside of Singapore, and 2. must provide headquarter services and approved related activities to overseas companies from Singapore	1. Income arising from the provision in Singapore of approved services will be taxed at 10%. 2. Other income from overseas subsidiaries and associated companies may also be eligible for effective tax relief. 3. Incentive applicable for up to 10 years with provision for extension
Investment Allowance Incentive	1. Approved manufacturing and service activities. 2. Approved R&D activities 3. Approved construction operations 4. Approved projects for reducing consumption of portable water	Qualifying period of up to 5 years within which specified investments must be made	Exemption of taxable income of an amount equal to a specified proportion (up to 50%) of new fixed investment.
Expansion Incentive	Approved manufacturing and services activities	Minimum investment of S\$10mn. in new productive equipment and machinery (for manufacturing activities only)	1. Exemption of 33% tax on profits in excess of pre-expansion level. 2. Tax relief period of up to 5 years.

continue

Table 4.5 (continued)

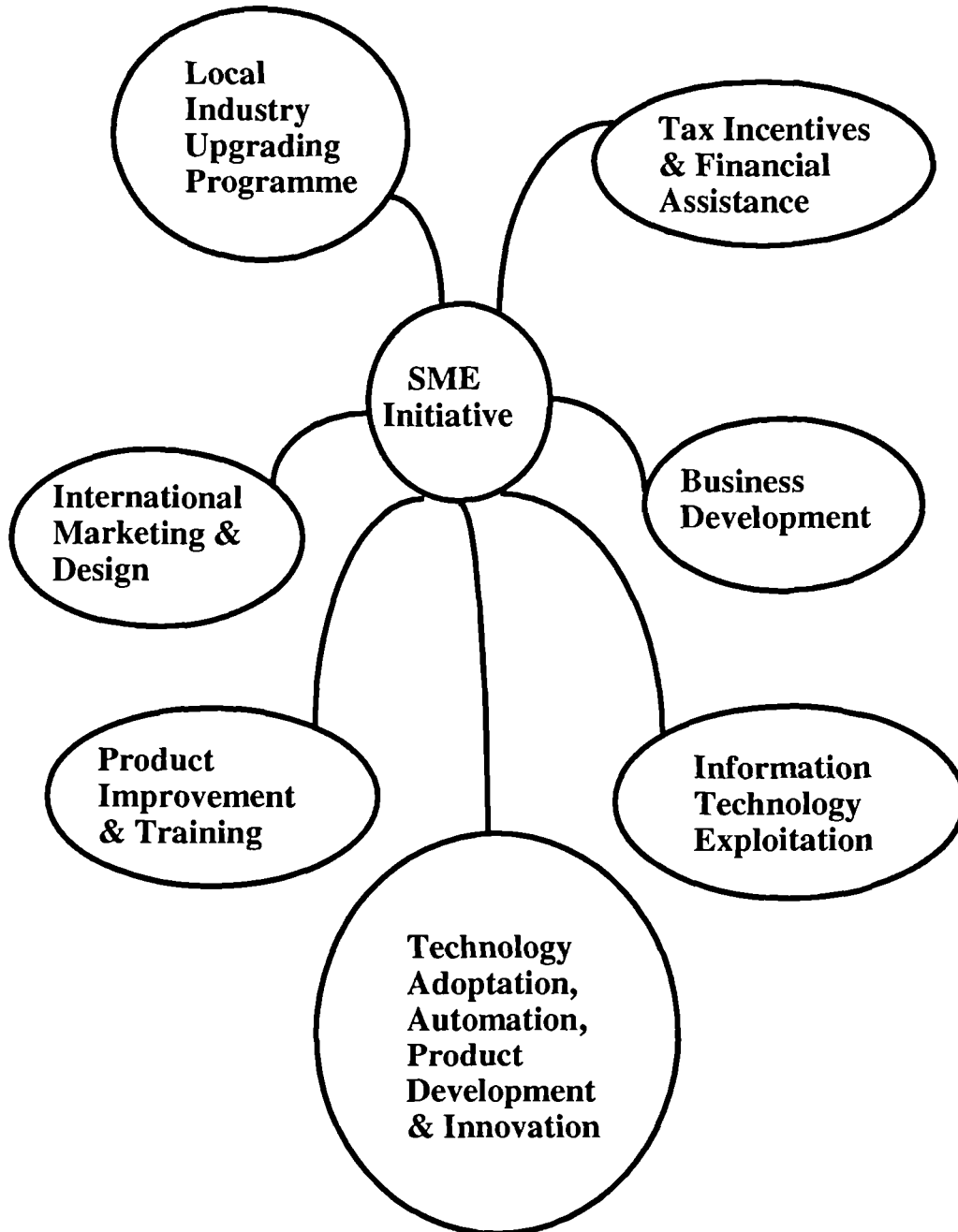
Pioneer Status	Approved manufacturing and service activities	New activity or one which has been granted pioneer status in the past.	1.Exemption of 33% tax on profits arising from pioneer activity. 2.Tax relief period of 5-10 years
Export of Services	Approved service activities	1. Services must be undertaken with respect to overseas projects from Singapore base. 2. Minimum export levels of 20% of total revenue.	1. 90% of the qualifying export income is exempted from tax. 2. Tax relief for 5 years with provision extension.
Post-pioneer Incentive	Approved companies enjoying pioneer status or export incentive is a follow-up to the pioneer status previously awarded.	Companies must be enjoying pioneer status or export incentive on or after 1 April 1986 and should incur additional investment	Corporate tax rate of 15% for up to 5 years upon expiry of pioneer or export incentive
Venture Capital Incentive	Investment by eligible companies and individuals in approved new technology projects	Companies must be: 1. at least 50% owned by Singapore citizen or permanent resident. 2. incorporated in Singapore for tax purposes. Individuals must be Singapore citizens or permanent residents	Losses incurred from the sale of shares, up to 100% of equity invested, can be set off against investor's other taxable income.
Warehousing and servicing incentive	Approved warehousing, technical or engineering services	1. Minimum fixed investment in warehousing buildings and productive equipment of \$2mn. 2. Goods must be traded by company	1. 50% exemption of tax on profits in excess of a fixed base. 2. Tax relief period of 5 years.

Source: Singapore Economic Development Board.

The *SME Committee* (1989, p.1) in particular, recommended that "local enterprises become a driving force contributing towards a vibrant, resilient and highly developed economy". **Figures 4.1 and 4.2** show the various assistance schemes designed to help local companies to upgrade their plant facilities and employees' skills. As a result, from 1986 to mid-1991, subsidised loans to local SMEs totalled S \$1.4 bn, which was three times the amount approved in the 1980 to 1985 period (*The Straits Times*, August 2 1991).

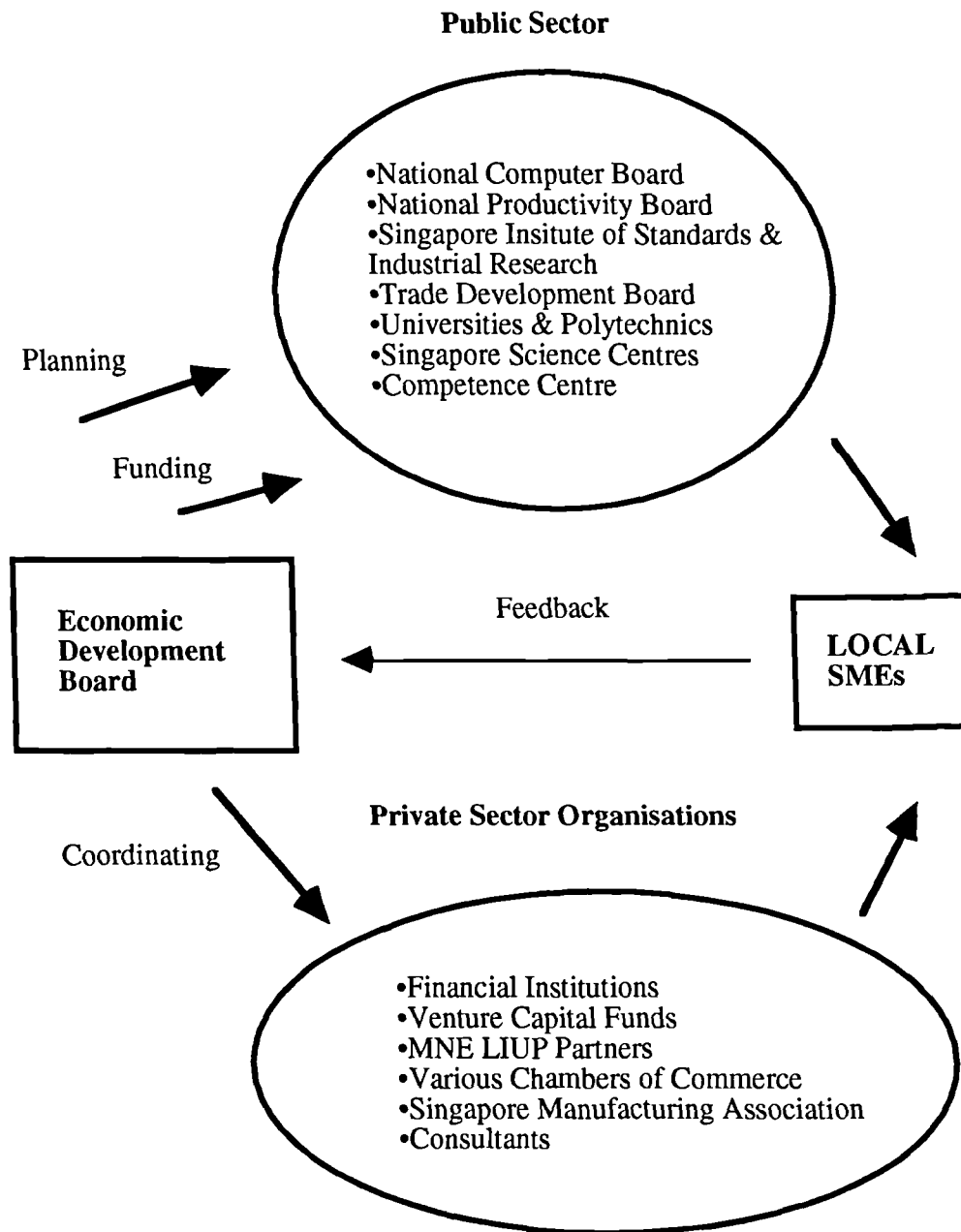
Policy makers also began to recognise that the presence of many foreign MNEs in Singapore had created excellent opportunities for technology transfer and business collaboration. For example, the *Local Industries Upgrading Programme* (LIUP) was implemented in May 1986 through a partnership arrangement with multinational companies. LIUP uses a foreign MNE as an agent to transfer management know-how and technology to upgrade local firms in the supporting industries in areas such as production, quality, inventory control and financial management. By the end of 1992, there were 30 large foreign MNEs providing technical assistance to more than 100 local companies in the manufacturing and service sectors (EDB, 1992).

Figure 4.1 Assistance Package for Singaporean Small and Medium Enterprises (SME)



Source: Singapore Economic Development Board, SME Committee. Derived by this researcher (see Appendix 4A for details.)

Figure 4.2 The Multi-agency Network Assistance Scheme for Singaporean Small and Medium Enterprises (SMEs)



Source: Derived by this researcher from Singapore Economic Development Board (see Appendix 4A for details).

Currently, Singaporean-owned enterprises are also encouraged to undertake overseas investment as part of the strategy to move into higher value added activities and expand their production. For example, the *International (Outward) Direct Investment Unit (IDI)* was formed in September 1988 by the EDB to assist local companies to undertake FDI. It was felt that through FDI, local companies would be able to gain access to foreign markets, and acquire advanced technology and marketing skills which would provide vital linkages and spin-off benefits to the Singapore economy (see **Appendices 4B & 4C**).

Moreover, as from January 1993 onwards, the Singapore Trade and Development Board (TDB) will take on an additional role (i.e. besides promoting trade) of assisting Singaporean firms to invest abroad (*The Straits Times Overseas Weekly*, 2 January, 1993). The assistance which it now provides includes:

- (i) using TDB's network of 24 offices world-wide to identify investment opportunities;
- (ii) expanding TDB's existing trade information service into "one-stop business information centre and referral centre" to provide information on investment opportunities;
- (iii) expanding TDB's existing *Market Development Assistance Scheme* into *Market and Investment Assistance Scheme*;
- (iv) participating directly (i.e. as partners in overseas joint ventures) in strategic FDI (e.g. to gain market access or increase market share);
- (v) providing Business Development centres in TDB's overseas offices for Singaporean associations and consortiums.

In addition, in February 1993, the Singapore government set up the *Committee to Promote Enterprise Overseas* to advise it on ways to create an "external economy or second wing" for Singapore (*The Straits Times Overseas Weekly*, 6 February 1993, p.1). However, increased support for local enterprises does not imply a denigration of inward FDI.

The liberal foreign investment policies introduced since the 1960s remain intact but the roles of foreign and indigenous companies are considered complementary, helping to promote continued industrial and economic development for Singapore (*Economic Planning Committee*, 1991; *Economic Committee*, 1986).

Moreover all companies (i.e. both local and foreign firms) were encouraged to go beyond using Singapore as a manufacturing base. For example, as from 1986 onwards, generous Operational Headquarter (OHQ) incentives are offered to both foreign and locally owned manufacturing MNEs which are using Singapore as a centre to oversee the marketing, research and development (R&D), treasury functions and distribution activities of their subsidiaries in the Asia Pacific region. Tax incentives were also given to companies moving into higher value added activities (i.e. for their operations in Singapore; see **Table 4.4**).

Between the period 1986 to 1992, GDP and exports grew by an annual average of around 6 to 10 per cent respectively (see **Tables 4.5** and **4.1**). Indeed, by the end of 1992, Singapore became the world's largest export per head (see **Table 4.6A**). The change in the structure of its exports and imports reflect the increase of high value activities in the manufacturing sector since the 1980s (see **Table 4.6B**).

Table 4.6A World's Merchandise Trade, 1992

Ranking/Country	Exports per head (US \$)
1.Singapore	23,188
2.Hong Kong	22,522
3.Belgium/Luxembourg	11,833
4.Switzerland	9,717
5.Holland	9,293
6.Sweden	6,499
7.Austria	5,624
8.Germany	5,362
9.Canada	5,000
10.France	4,137
11.Taiwan	3,940
12.UK	3,313
13.Saudi Arabia	3,268
14.Italy	3,064
15.Japan	2,744
16.S.Korea	1,780
17.USA	1,769
18.Spain	1,666
19.Mexico	524
20.China	74

Source: GATT; United Nations as published in
The Economist, 10 April 1993, p.120

**Table 4.6B Singapore's Average Annual Exports/Imports by Items,
1960-1992 (in Percentage)**

Items	Exports		Imports	
	1980- 1992	1960- 1979	1980- 1992	1960- 1979
Machinery & Transport Equipment	45.1	18.5	43.5	12.1
Mineral Fuels & Bunkers	18.2	12.3	16.9	12.5
Miscellaneous Manufactured Articles	9.2	3.9	8.9	9.3
Manufactured Goods	8.8	9.0	12.5	12.3
Chemicals & Chemical Products	6.7	2.5	6.2	2.4
Food, Beverages & Tobacco	4.6	13.3	4.9	14.3
Crude Materials	5.2	36.5	2.4	35.2
Others	2.2	3.8	2.7	2.0

Source: Singapore Trade Development Board ; Singapore Department of Statistics

The standard of living in terms of ownership of goods and growth in real income, has also improved substantially over the last two decades (see **Table 4.7**).

Table 4.7 Singapore's Material Welfare/Ownership of Goods and Assets, 1973-1990

Items/Year	Percentage of Household	
	1990	1973
Home	90	36
Television set	99	49
Refrigerator	99	47
Washing machine	84	2
VCR	78	0
Air-conditioner	29	17
Car *	28	3
Personal computer	19	0

* This figure is unlikely to increase only marginally in the future as the Singapore government restricts car ownership and provides an efficient public transport.

Source: *The Straits Times Overseas Weekly*, 18 January 1992, p.2

Today, foreign MNEs are still playing a significant role in Singapore's economic and industrial development. For example, since 1985 they have accounted for more than 80 percent of the investment in Singapore's manufacturing sector (see **Table 4.8**). On the other hand, it is noteworthy that the average annual growth rate of inward foreign investment has slowed down from an annual average of 38 per cent between 1960 to 1979 to 17 per cent between 1980 to 1992 (see **Table 4.9**).

Moreover, from 1990 to 1992, although share of foreign inward investment still accounted for around 80 per cent of the total investment in Singapore, in absolute terms, investment by Singapore-owned companies grew by an average of 66 per cent annually from S\$266mn to S\$694mn (see **Table 4.8**)

There is also a consistent increase in higher value-added investments (see **Table 4.10**) from three major sources, namely the USA, Japan and Europe (see **Table 4.11**).

Table 4.8 Local/Foreign Percentage (%) Share of Investment in the Manufacturing Sector in Singapore, 1980-1992

Period	1992	1991	1990	1989	1988	1987	1986	1985	1980
Foreign Share (%)	84.5	83.9	89.3	83.0	82.8	83.1	82.1	79.3	78.5
Local Share (%)	15.5	16.1	10.7	17.0	17.2	16.9	17.9	20.7	21.5
Total (%)	100	100	100	100	100	100	100	100	100
Total Value (S\$mn)	3480	2934	2487	1959	2007	1743	1450	1120	1189

Note: Annual percentage share between 1965 to 1980 are not given because the classification of foreign investment in Singapore by source country was restructured in 1980.

Sources: Singapore Department of Statistics and Singapore Economic Development Board

Table 4.9 Inward Foreign Investment in Singapore's Manufacturing Sector, 1960-1992

Foreign Investment in Gross Fixed Assets				
Year	Annual Amount (S\$mn)	Cumulative Amount (S\$mn)	Annual Growth Rate (%)	Average Annual Growth Rate (%)
1992	3480.9	26231	20.9	(a)16.8
1991	2878.5	22750	11.0	
1990	2217.5	20290	17.9	
1988	1657.7	14939	15.2	
1986	1190.6	12717	34.0	
1984	1334.7	12180	5.1	
1982	1014.0	9607	11.8	
1980	1189.1	7520	18.4	
1978	1097.0	5242	26.5	
1976	359	3739	10.6	
1974	395	3054	14.9	
1972	708	2283	45.0	
1970	395	995	65.8	
1968	151	454	49.8	
1966	82	239	52.2	
1960-65	NA	157	NA	

Keys: (a): From 1980-1992

(b): From 1960-1979

NA: Denotes not available

Sources: Singapore Department of Statistics; Singapore Economic Development Board Research and Statistics Unit.

Table 4.10 Amount of Value-added Activities in the Manufacturing Sector, 1985-1992, (S\$'000)

Year	Gross value-added per worker *	Average gross value added per worker @
1992	164.1	61.9
1991	154.8	58.4
1990	110.0	56.0
1989	91.2	56.0
1988	99.5	49.4
1987	84.1	48.0
1986	90.2	44.3
1985	92.2	38.7

Key: * For the new investment commitments only.

Source: Singapore Economic Development Board Research and Statistics Unit.

Table 4.11 Singapore's Inward Foreign Investment in the Manufacturing sector by Country/Region of Origin, 1980-1992 (S\$ Million)

Year	Value (S\$mn)	% share of total	Value (S\$mn)	% share of total	Value (S\$mn)	% share of total	Value (S\$mn)	% share of total
	USA		Japan		Europe		Others	
1992	1200	34.5	843.5	24.2	614.1	17.6	129.6	3.7
1991	969.2	39.4	713.2	29.0	684.2	27.8	94.5	4.2
1990	1054.8	42.4	708.2	28.5	435.3	17.5	19.6	0.8
1989	520.2	26.6	541.2	27.6	562.2	28.2	19.8	1.0
1988	594.7	29.5	693.2	34.4	358.1	17.8	21.7	11.1
1987	543.5	27.1	601.1	34.5	294.1	14.7	17.6	0.8
1986	443.4	30.5	493.8	34.1	219.7	15.1	34.6	2.3
1985	427.3	48.1	244.1	27.5	201.0	22.7	15.6	1.8
1982	533.3	45.9	73.7	6.3	421.9	36.3	134.1	11.5
1980	505.7	42.5	135.3	11.4	360.4	30.3	187.7	15.8

Note: Sources of foreign investment commitments were reclassified as from 1980

Source: Singapore Economic Development Board.

Lastly, between 1976 to 1990, Singapore's total outward FDI increased by slightly more than seven-fold from S\$1.01bn to S\$7.47bn (see **Table 4.12**). From 1981 to 1990, cross-border direct investment by Singapore's wholly- and majority-local owned companies in particular, almost trebled from S\$878 mn to S\$3423mn. (see **Table 4.13**).

While much has been written about the role of foreign trade and inward investment in the industrial and economic development of Singapore (e.g. Lee, 1988; Lim, 1988, 1986; Mirza, 1986; Corbo et al, 1985; Chen, 1982; Chia, 1984; Ariff and Hill, 1985; Lim and Pang, 1988; Lim, 1988, 1983; Spaeth, 1983; Hughes and You, 1969; Woronoff, 1987), there is, however, still little literature on the characteristics of Singaporean enterprises, and their overseas investment activities and performance. The following sections analyse Singapore's investment abroad.

4.5 Nature and Extent of Singapore's Outward Investment Flows and Outward Investment Policy

Since 1965, any Singapore registered enterprise domiciled in Singapore can undertake overseas investment without seeking any official approval (Singapore Department of Statistics, 1990). Contrary to claims by some authors (e.g. Hill and Pang, 1991; World Bank, 1989; Aggarwal, 1990, 1985; Lim and Teoh, 1986; Pang and Karaman, 1985; Lecraw, 1985; Wells, 1983), the Singapore government (i.e. the Singapore Department of Statistics), does have records of the outflows of Singaporean overseas investment since 1976 (see **Table 4.12**).

Moreover, although no official approval is required before a Singaporean-owned company embark on any foreign operations, it is mandatory that all

local companies report to the *Singapore Ministry of Trade and Industry* their investment abroad (Singapore Department of Statistics).

Table 4.12 shows that from 1976 to 1990, Singapore's total investment overseas and foreign outward investment grew by an average of 21 per cent and 18 per cent annually respectively (see **Table 4.12**). Growth of FDI was most remarkable from 1989 to 1990 (e.g. at an annual average of 60%). Between 1981 to 1990, FDI by Singapore's wholly-owned and majority-owned expanded at an annual average of around 15 per cent (see **Table 4.13**).

Table 4.12 Singapore's Investment Abroad, 1976-1990
(in S\$ Billions)

Year	Total Overseas Investment		Total Direct Investment (S\$bn)		
	Value (S\$bn)	Annual change (%)	Value (S\$bn)	Annual change (%)	Average Annual change (%)
1990	27.83	22.5	7.47	41.2	41.2
1989	22.71	75.5	5.29	76.9	76.9
1988	12.97	7.7	2.99	1.0	1.0
1987	12.04	-6.5	2.96	14.3	14.3
1986	12.89	1.4	2.59	24.6	24.6
1985	12.70	24.5	2.26	-5.8	-5.8
1984	10.20	16.6	2.40	7.6	7.6
1983	8.75	14.4	2.23	6.7	6.7
1982	7.65	13.8	2.09	24.4	24.4
1981	6.72	34.7	1.68	3.7	3.7
1980	4.99	14.2	1.62	7.3	7.3
1979	4.37	28.9	1.51	17.1	17.1
1978	3.39	25.1	1.29	15.2	15.2
1977	2.71	23.2	1.12	10.9	10.9
1976	2.20	NA	1.01	NA	NA

Sources: Singapore Department of Statistics (1993), "Singapore's Investment Abroad:1990"; Singapore Department of Statistics (1991); "Singapore's Investment Abroad: 1976-1989".

Table 4.13 FDI by Wholly- and Majority-owned Singaporean Companies, 1981-1990

1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Annual Value (S\$m)									
3423	2242	1900	1836	1853	1672	1395	1226	1099	878
Annual Change (%)									
52.6	18.0	3.5	-0.9	10.8	19.8	13.7	11.5	25.2	NA

NA: Denotes not available because the classification of FDI by ownership only began in 1981.

Source: Singapore Department of Statistics (1992/93), "Singapore's Investment Abroad: 1976-89" and Singapore's Investment Abroad: 1990.

4.5.1 Geographical Distribution of Singapore's FDI

Official data on the geographical and industrial distribution of Singapore's FDI, were only available as from 1981 onwards (Singapore Department of Statistics, 1991/1993). **Table 4.14** shows that throughout the 1980s to 1990, the majority of Singapore's FDI were located in Asian countries (see **Table 4.14**).

Table 4.14 shows that the overall proportion of Singaporean FDI in Asia, however, decreased from 77 per cent in 1981 to 48% in 1990. From the mid-1980s onwards, more Singaporean firms were investing in developed countries. For example, from 1985 to 1990, the average annual growth rate of Singapore's FDI to the USA and some Western European countries was 41 per cent compared to around 4 per cent for Asian countries (Singapore Department of Statistics, 1993).

By the end of 1990, Singaporean manufacturing companies had a total 199 subsidiaries and branches in Europe and the USA compared to only 45 in 1981 (see **Table 4.15**). Moreover, recent press reports have also indicated that FDI these countries is increasing (see **Tables 4.16** and **4.17**). However, as shown in **Table 4.18**, except for 1986, 1987 and 1990, income from Singapore's FDI in the USA and Canada was negative from 1981 to 1990. This was also the case in the Netherlands throughout the period 1984 to 1988.

In 1990, the average return for all investments by Singaporean MNEs was nearly 8 per cent. In terms of profitability by country, FDI in the USA yielded the highest return (31%), followed by Switzerland (27%) and Hong Kong (23%) (*Singapore Department of Statistics, 1993*).

**Table 4.14 Singapore's Direct Investment Abroad by Region/Country,
1981-1990 [Percentage (%) Distribution]**

PERCENTAGE SHARE OF TOTAL OUTFLOWS										
Region / Country	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
ASIA (%)	48.3	56.9	65.5	64.5	70.7	76.3	75.2	74.4	76.0	76.9
<u>ASEAN</u>	28.0	33.4	40.6	39.9	44.5	50.2	55.9	55.6	59.1	64.3
Malaysia	22.2	26.9	34.4	34.0	37.9	43.0	50.4	52.0	55.7	59.9
Thailand	2.7	2.7	1.5	1.5	1.1	0.9	0.3	1.9	1.9	2.3
Indonesia	1.3	1.5	1.9	1.9	2.5	2.9	2.3	0.3	0.4	0.6
Others	1.8	4.1	1.5	3.0	1.6	4.0	5.9	1.4	2.5	1.5
<u>N-E ASIA</u>	20.3	23.5	24.9	24.5	26.2	26.1	19.3	18.8	16.9	12.6
Hong Kong	12.3	15.7	18.2	19.1	20.4	16.3	15.9	15.6	15.1	10.7
Taiwan	2.6	2.7	1.8	0.8	1.4	2.3	--	--	--	--
China	1.8	2.0	3.4	3.5	2.5	--	--	--	--	--
Japan	0.8	0.5	0.9	0.6	0.5	--	--	--	--	--
EUROPE (%)	12.1	5.7	10.1	12.1	2.6	3.9	2.9	2.5	2.7	2.9
Netherlands	8.2	-1.7	3.7	0.5	0.5	0.3	0.1	0.2	0.2	0.1
UK	2.5	1.5	1.6	3.1	1.9	1.7	1.9	2.0	2.3	2.5
Others	1.4	1.6	4.8	8.5	0.2	2.1	1.9	0.3	0.2	0.4
NEW ZEALAND (%)	10.7	15.9	--	--	--	--	--	--	--	--
AUSTRALIA (%)	6.8	6.1	5.5	7.3	6.7	7.9	5.5	5.4	4.3	3.7
USA (%)	4.4	5.9	3.5	2.3	2.5	2.9	2.2	2.1	2.1	1.9
OTHERS (%)	17.7	9.5	15.4	13.8	17.5	9.0	14.2	15.6	14.9	18.3

Note: Figures may not add up to a hundred because of rounding-off.

Source: Singapore Department of Statistics.

**Table 4.15 Number of Singapore Companies Established
Abroad by Country, 1981-1990**

Country	1990	1989	1988	1987	1986	1985	1981
Total	2308	2186	1787	1740	1663	1621	1042
Asia	1902	1757	1465	1441	1391	1360	893
Asean	1307	1226	1046	1041	1011	1009	745
Malaysia	1010	963	863	860	831	832	659
Others	297	263	183	181	180	117	86
N-E Asia	595	531	419	400	380	351	148
Hong Kong	371	347	306	299	291	276	118
China	80	65	30	31	22	16	--
Taiwan	58	54	40	34	33	29	12
Others	86	65	37	36	35	19	18
Europe	113	93	66	65	58	55	30
UK	63	51	47	39	37	35	20
Netherlands	20	17	7	9	9	7	7
Others	30	25	15	17	14	13	3
Australia	88	83	72	81	14	13	53
USA	86	79	62	51	7	7	15
New Zealand	16	13	--	--	--	--	--
Others	103	161	113	94	88	83	51

Source: Singapore Department of Statistics (February, 1993; October 1991)

**Table 4.16 Singapore's FDI in Developed Countries:
Recent Announcements (1992-1993)**

Country	Company Involved / Entry Mode / Value of FDI / Business Activities	Motives for FDI
1.UK	Mayor PTE / Greenfields Manufacturing of Moulded Products	NA
2.UK	Singapore Food Industries Novo Technology Development / Acquisition (30% of International Cuisine) Production of foods	Gain access to the British firm's freeze-dry technology for preserving cooked foods
3.UK	Singapore Bio-Innovations / Acquisition / (100% of Oxford Glycosystems) Biotechnology	Acquire technological know-how of carbohydrate analysis
4.USA	Singapore Bio-Innovations / Acquisition. (100% of Gilead Sciences) Biotechnology	Same as above
5.USA	Wing Tai Limited / Acquisition. (US\$60mn shares of Style Land, Baxter International & Innova) Garment manufacturing	Market Access
6.Australia	A consortium / Take-over / (US\$40mn) of all Webforge's 3 factories in Australia, 1 each in New Zealand, China and Singapore)	Acquire unique & advanced design technology and increase market share in S.E Asia.
7.Netherland	16 Singaporean companies /. Joint ventures with two Dutch MNEs). Marketing and distribution of miscellaneous manufactured goods	Expand market share and acquire marketing intelligence
8.France	NA / Joint ventures with French MNEs/ S\$60mn in 1990 alone	NA
9.New Zealand	NA./ S\$1.6bn in 1991 alone Foods and tourism	NA

Sources:

1. *Financial Times*, November 7 1991
2. *The Straits Times*, August 12 1991
- 3.& 4. *The Straits Times Overseas Weekly Edition*, February 20 1993 & October 5 1991
5. & 6 *The Straits Times Overseas Weekly Edition*, October 27 1992
7. *The Straits Times*, March 27 1992
8. *Singapore Bulletin*, March 1992
9. *Financial Times*, April 15 1992.

Table 4.17 Where Singaporean Companies Invested, 1989-1991

Country/ Region	1991		1990		1989	
	Value (S\$mn)	No.	Value (S\$mn)	No.	Value (S\$mn)	No.
Europe	697.7	3	37.7	4	70.7	2
Asia	211.0	11	209.9	6	491.2	8
USA	86.2	5	75.6	7	76.8	7
Total	994.9	19	323.2	17	636.7	17

Note: Figures only show FDI made under the EDB's IDI programme.

Source: Singapore Economic Development Board (EDB).

**Table 4.18 Income from Singapore's Outward FDI by Country / Region
(S\$ Million)**

Region / Country	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Total	467.7	393.8	391.1	276.2	204.3	14.6	161.3	161.8	121.0	104.9
Asia	363.3	580.1	256.2	145.4	111.0	-52.8	135.0	110.0	119.9	99.4
<u>ASEAN</u>	172.3	214.4	151.4	60.5	0.9	-36.6	96.0	103.6	78.5	76.6
Malaysia	160.7	159.5	137.1	60.4	-3.4	-34.8	100.1	104.2	77.9	69.4
Thailand	-1.2	32.4	7.9	7.8	3.6	0.1	2.0	0.3	-0.6	0.7
Indonesia	4.2	-4.7	2.2	-1.0	-0.8	-4.6	-3.6	2.2	1.2	2.8
Others	2.3	60.8	4.2	-6.7	4.7	1.5	-1.3	-3.3	-0.6	-4.4
<u>N-E ASIA</u>	190.9	365.7	104.8	84.9	110.1	-16.2	39.0	6.4	41.4	22.8
Hong Kong	198.2	220.9	102.8	63.4	124.8	-13.8	34.0	0.6	34.9	21.5
Taiwan	-18.5	127.7	10.6	7.9	-1.3	-2.2	0.8	0.1	2.1	--
China	6.1	5.9	-1.6	11.7	-9.3	-5.5	--	--	--	--
Japan	-4.4	0.8	1.0	0.8	-3.0	-2.7	--	--	-0.3	--
Others	9.7	10.2	-9.2	1.0	-0.9	7.4	4.2	5.7	4.9	1.3
Europe	-1.3	55.8	56.5	58.4	39.4	24.2	-2.2	45.1	-10.5	-18.3
Netherlands	-13.2	22.5	-6.7	-7.3	-4.9	-0.3	-0.1	0.1	3.8	0.6
UK	4.2	25.0	6.9	14.5	18.1	13.7	-5.2	44.1	-14.3	-18.9
Others	7.6	8.3	56.3	51.2	26.2	10.8	3.1	0.9	--	--
New Zealand	116.7	-216.4	--	--	--	--	--	--	--	--
Australia	197.9	24.4	33.3	22.4	4.4	1.8	-8.2	-20.5	11.5	3.6
USA	97.0	-132.2	-21.8	2.4	0.2	-4.3	-7.2	-3.3	-2.1	-2.0
Others	89.9	82.0	67.2	47.5	51.4	46.9	46.4	33.1	25.3	22.2

Sources:

1. Singapore Department of Statistics (1993), "Singapore's Investment Abroad, 1990";
2. Singapore Department of Statistics (1991), Singapore's Investment Abroad, 1976-1989..

4.5.2 Industrial Distribution of Singaporean FDI

Table 4.19 shows that between 1981 to 1990, Singapore's FDI were centred in these three sectors: (i) financial and business services, (ii) manufacturing and (iii) real estate and construction. Singapore's FDI in the manufacturing industry accounted for around a quarter of the total direct investment. Singaporean companies also tended to engage in FDI in sectors which they dominate domestically in terms of value added, output and exports (see **Table 4.20**).

In other words, unlike the other three "Tigers" (World Bank, 1989; Young and McDermott, 1989; McDermott, 1990; Chen, 1984) which have substantial FDI in the textiles, apparel and footwear industries, Singaporean firms tend to undertake FDI in sectors such as foods and beverages, fabricated products and chemicals.

Table 4.19 Singapore's FDI by Industry, 1981-1990

Industry	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Percentage (%) Share of Total										
Financial & Business Services	58.2	61.0	65.0	59.8	57.3	59.0	58.1	59.9	53.8	55.2
Manufacturing	19.8	18.5	21.1	24.9	26.9	25.9	23.5	23.1	30.9	27.3
Commerce & Trade	9.6	6.7	9.5	9.2	9.6	10.2	10.2	7.8	9.8	10.4
Real Estate & Construction	7.1	7.6	0.8	0.7	0.8	0.8	0.9	1.8	0.2	--
Transport & Storage	2.4	3.4	3.4	5.3	4.9	3.8	2.7	2.8	1.5	1.8
Others	2.4	2.8	0.9	0.1	0.5	0.3	4.6	4.6	3.8	5.3

Sources:

1.Singapore Department of Statistics (February, 1993), "Singapore's Investment Abroad:1990"

2.Singapore Department of Statistics (1991), "Singapore's Investment Abroad: 1976-1989".

3.Singapore Department of Statistics (for 1981-1988 - unpublished data).

Table 4.20 Percentage Distribution of FDI by Singaporean Manufacturing MNEs by Industrial Sector

Sector	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Percentage Share (%) of Total										
Foods, beverages & tobacco	52.1	54.5	55.0	42.9	47.9	49.5	47.3	51.1	24.3	31.8
Fabricated metal products, machinery & equipment	20.6	21.5	26.7	17.7	18.5	20.4	22.9	16.8	24.6	29.3
Chemicals, chemical products Petroleum, rubber plastics products	11.8	10.6	11.9	11.3	12.3	13.9	14.9	16.4	12.3	16.5
Printing, publishing, Paper & paper products	10.6	9.2	0.5	22.9	15.9	11.7	10.3	11.4	11.6	14.6
Textiles, apparel footwear & leather	2.2	2.5	2.4	2.0	1.8	1.9	2.1	2.2	1.6	1.1
Wood, wood products & furniture	1.2	1.0	0.9	0.8	0.3	0.7	1.7	1.7	1.3	1.1
Others	1.5	0.8	2.5	2.0	3.3	0.7	0.5	0.4	11.0	5.5

Source: Singapore Department of Statistics (unpublished data)

Table 4.21 shows by the end of 1990, around 90 per cent of Singaporean MNEs' overseas manufacturing subsidiaries of 511 are located in Asia. Within this region, slightly more than half of the subsidiaries were established in Malaysia. The majority of production subsidiaries located outside Asian countries were in the USA.

Table 4.21 Number of Singaporean Overseas Subsidiaries by Country and Industrial Sector, 1990

Region / Country	A	B	C	D	E	F	G	H	Total
Total	511	78	703	173	420	148	168	107	2308
Asia	472	74	636	126	269	106	128	91	1902
<i>ASEAN</i>	350	50	473	80	125	80	71	78	1307
Malaysia	270	32	389	54	94	71	36	64	1010
Thailand	44	7	42	16	15	7	13	2	146
Indonesia	21	2	9	2	3	1	5	7	50
Others	15	52	33	8	13	2	17	5	101
<i>N-E ASIA</i>	122	24	163	46	144	26	57	13	595
Hong Kong	34	13	103	27	129	24	36	5	371
Taiwan	10	4	31	2	6	0	4	1	58
China	50	2	10	5	2	1	3	7	80
Japan	1	1	8	8	3	0	9	0	30
Others	27	4	11	4	4	1	5	0	56
Europe	9	0	18	13	46	4	19	5	113
Netherlands	1	0	3	2	14	0	0	0	20
UK	5	0	9	7	21	4	13	4	63
Others	3	0	6	4	10	0	6	1	30
New Zealand	3	0	3	4	5	1	0	0	16
Australia	8	0	3	4	5	1	0	0	16
USA	11	0	17	10	24	9	13	2	86
Others	8	4	7	14	54	8	1	7	103

Keys:

A: Manufacturing; **B:** Construction; **C:** Commerce; **D:** Transport;
E: Financial Services; **F:** Real Estate; **G:** Business Services; **H:** Others

Source: Singapore Department of Statistics (February, 1993), "Singapore's Investment Abroad: 1990".

4.6 Limitations of Official Data on Singapore's Overseas Investment

It is recognised that these official data must be treated with caution. Since no official approval is required before Singaporean enterprises can undertake overseas investment, these figures can be grossly understated. Data from the host countries could be used to complement these figures. Here again, it must be said that some countries do not differentiate investments made by subsidiaries of foreign based MNEs in Singapore from those made by Singaporean companies and this can blow up the actual figures.

In other words, it is very difficult to achieve true comparison of statistics compiled from different sources because there are major differences in the way data are defined. For example, the Board of Overseas Investment in Indonesia and Thailand (*Thailand Board of Investment*, 1991) will only record "inward foreign investment in industries which they are promoting" (ESCAP, 1988, p. 56).

4.7 Singaporean Enterprises: Some Salient Features

In the manufacturing, commerce and service sectors, Singapore-owned firms constitute about 90 per cent of the total establishments, 39% of employment, 24 per cent of value added and 9 per cent of direct exports in 1990. However, of these approximately 65,000 local companies, only around 15 per cent employ more than 10 workers (*Economic Planning Committee*, 1991).

In terms of sales turnover, locally-owned companies are also small by international or even Asian standards (see **Tables 4.22** and **4.23**). Despite

their small size, three quarters of the Singaporean firms in the list of top 50 public companies in terms of sales turnover engage in overseas investment (see **Chapter 5, Figure 5.1** and **Appendix 5A**).

Table 4.22 Singapore-owned Enterprises Listed in "Asia-250", 1990

Ranking	Company	Industry	Turnover US\$mn	Assets US\$mn
30	Singapore Airlines	Airline	2345	2111
136	Singapore Petroleum	Oil refinery	568	101
164	Singapore Telecoms	Telecoms	488	1733
170	Singapore Press Holding	Publishing	473	374
178	Neptune Orient Lines	Shipping	460	95
205	Fraser & Neave	Beverages	406	478
209	Keppel Corporation	Shipbuilding	400	406

Note: All the seven companies except Fraser & Neave Limited have the Singapore government as the major shareholder.

Source: *South Survey*, October 1990.

Table 4.23 MNEs from Developing Countries Listed in Fortune 500

Country	Number .of MNEs
S. Korea	12
India	6
Brazil	3
Malaysia	1
Mexico	1
Taiwan	1
Singapore	0

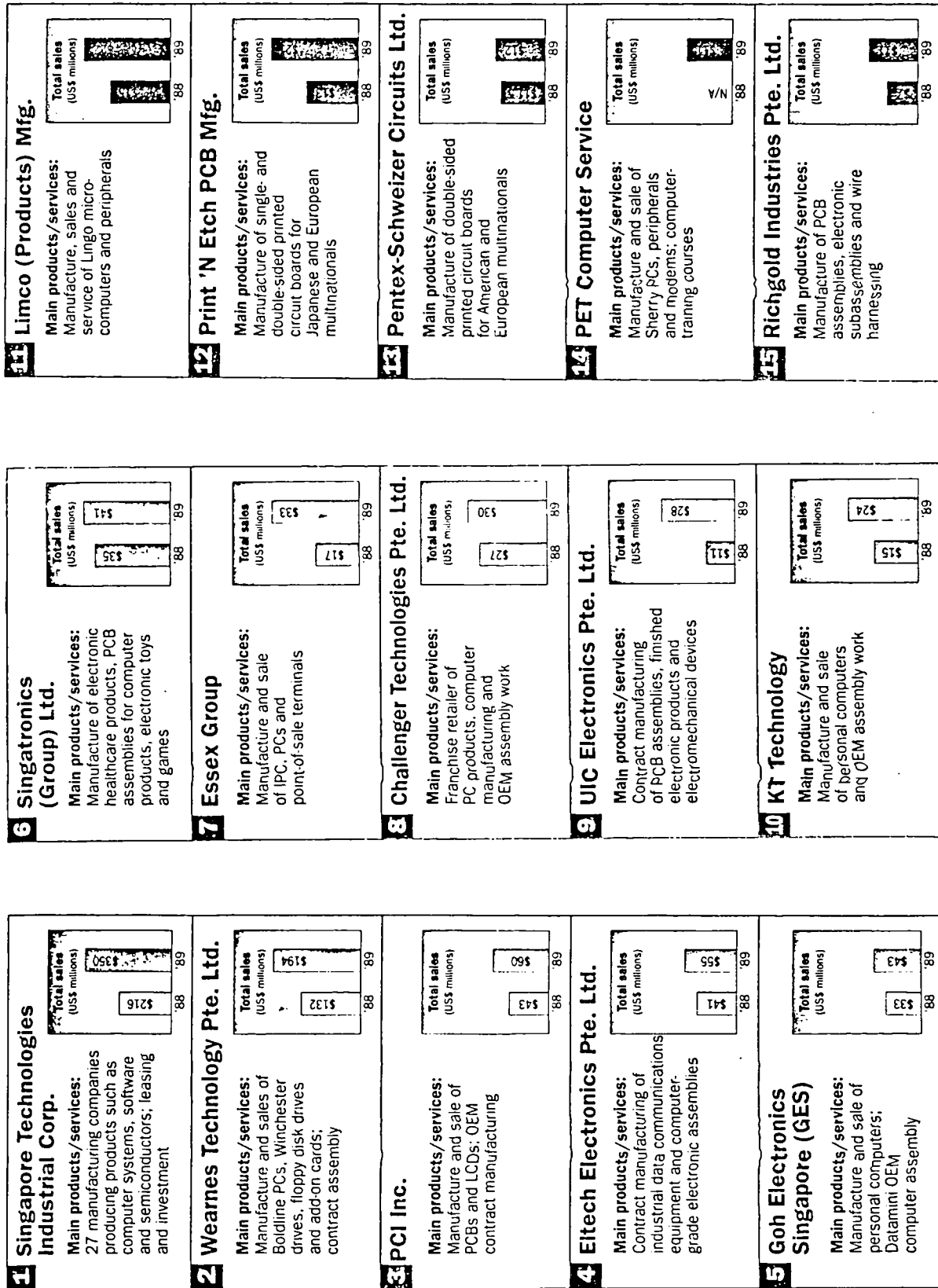
Source: Fortune 500, July 1992

The electronics sector is the biggest manufacturing industry in Singapore. The industry accounts for a third of the value added activities (Singapore Ministry of Trade and Industry, 1991). Of the top 10 export items, nearly 90 per cent are electronics goods. However, most of the Singaporean firms which made it to the top 50 public companies list are in the food manufacturing, and printing and publishing (media) sector (see **Chapter 5, Appendix 5A**).

In the case of the locally-owned companies, except for *Wearnes Technology Group* (Wearnes Tech), and *Singapore Technologies Industrial Corporation* (STIC), the majority of the 15 leading locally-based electronics companies are contractors for original equipment manufacturers (OEM) (see **Figure 4.3**).

STIC, the market leader of domestic electronics manufacturers is mainly owned by the Singapore Ministry of Defence and has less crossborder operations than other smaller electronics firms. However, its current strategy is to team up with Western companies to acquire advanced technology. It aims to do its own R&D and engage in direct manufacturing overseas eventually. It has already formed strategic alliances with US-based companies *Sierra Semiconductor Incorporated* and *National Semiconductor Corporation* to supply technology for a new US \$56 million semiconductor fabrication plant. It has also forged strategic alliance with *Gemplus Card International*, a French company, to make "smart cards" (*Electronics Business Asia*, August 1990). Wearnes and Singatronics are undertaking FDI as part of their growth strategy advantages (*Wearnes Brothers Ltd. Company Annual Report*, 1989, 1990, 1991, 1992; *Singatronics Ltd. Company Annual Report*, 1990, 1991).

Figure 4.3 The Top 15 Singaporean Electronic Companies, 1991



In the foods manufacturing sector, *Fraser and Neave Limited*, the largest and most established food producer in Singapore (i.e. it existed since the the early 1900s but became a Singapore-based company in 1968), is more export-oriented than smaller local companies such as *Yeo Hiap Seng Limited* and *Asia Pacific Breweries* which has expanded overseas by FDI. These smaller firms have perhaps chosen this strategy because of Singapore's market is too small and already saturated. FDI may be undertaken as an alternative to exporting for some firm- specific strategic objectives (e.g to acquire advanced technology an/or up to date marketing intelligence).

4.8 Issues and Concerns

Despite Singapore's achievements for the last three decades and the fact that it is being highly recommended as a development model for many developing nations by the United Nations in 1991 and 1992 (e.g. for Poland, Hungary and some African States) (6), some major issues and concerns are likely to constraint Singapore's future domestic growth. One of the main concerns is that Singapore's trade is highly dependent on a few markets and industries. For example, since 1982, when Singapore industries began moving into higher value added activities, the USA accounted for around a quarter of Singapore's non-oil domestic exports (see Tables 4.24 and 4.25).

The appreciation of the Singapore dollar sharp against all major currencies except the yen in the last two years and the recent months is also one of the main issues which concerns Singaporean businessmen. The strong Singapore dollar is likely to affect the future competitiveness of Singapore exports (see Table 4.26).

Table 4.24 Singapore's Export Markets by Region, 1960-1992

	1960	1970	1990	1992
Total (S\$mn)	3477	4756	41452	128953
Region	Percentage (%) Share			
Asia	53.7	55.5	55.8	56.5
Europe	26.4	24.0	21.1	17.6
N.America & Others	19.9	20.5	23.1	27.9

Source: Singapore Trade and Development Board

Table 4.25 Singapore's Top Three Export Markets by Country, 1960-1992 (Percentage (%) Share)

Country / Year	Percentage share (%) of total exports
1992	
1.USA	25.9
2.Malaysia	12.2
3.Japan	7.1
1980-1991	
1.USA	24.5*
2.Malaysia	13.8*
3.Japan	7.9*
1970-1979	
1.Malaysia	20.3*
2.USA	15.2*
3.Japan	7.4*
1960	
1.Malaysia	28.8*
2.UK	8.2*
3.USA	7.0*

* Average annual figure

Source: Singapore Department of Trade and Industry

Table 4.26 Singapore Currency to Per Unit of Foreign Currency, 1984-92

Currency	1984	1985	1986	1987	1988	1989	1990	1991	1992
US \$	2.18	2.01	2.18	1.99	2.03	1.95	1.73	1.63	1.60
Sterling £	2.54	3.03	3.20	3.74	3.56	3.13	3.32	3.03	2.85
Deutschmark	0.69	0.86	1.11	1.26	1.20	1.03	1.15	1.07	1.02
Yen	0.87	0.87	1.05	1.35	1.63	1.60	1.39	1.28	1.30
Malaysian \$	0.91	0.89	0.83	0.80	0.73	0.72	0.64	0.60	0.58
Hong Kong \$	0.27	0.28	0.26	0.27	0.25	0.24	0.22	0.20	0.18

Source: Monetary Authority of Singapore

Moreover, recent trade protectionism practised by the EC in the form of anti-dumping laws against Singapore-made audio-visual equipment (*Business Times*, 21-22 December 1991) may also affect Singapore's exports to the EC which, regionally, is its second largest trading partner after the USA (see **Table 4.24**). The formation of the Single EC market and *North American Free Trade Area* (NAFTA) may make access to these major markets even more difficult in future. Besides, it is anticipated that Singapore is likely to lose the preferential trade benefits under the *Generalised System of Preferences* (GSP) it enjoys with the EC before 1995 (*Business Times*, 21-22 December 1991) (7).

Another major issue of concern is that the contribution by local SMEs is still much less than their counterparts in other three "Tigers" due to the relatively more dominant role played by MNEs in Singapore exports (see **Table 4.27**). For example, in 1991 and 1992 foreign MNEs produced an

average of around 70 per cent of Singapore's exports and nearly 90% of the value of its top 10 exports were electronics items (Singapore Department of Statistics, 1993). In addition, unlike the other three "Tigers" Singapore has been having trade deficits in merchandise goods since 1960 (see **Table 4.2**).

Table 4.27 Comparison of SME Performance among the Four "Tigers"

Economy	No.of Firms	Workforce	Value Added	Direct Exports
Percentage (%) Share of Total				
Singapore	81	40	22	15
Hong Kong	98	62	57	17
S. Korea	98	66	38	32
Taiwan	97	70	55	66

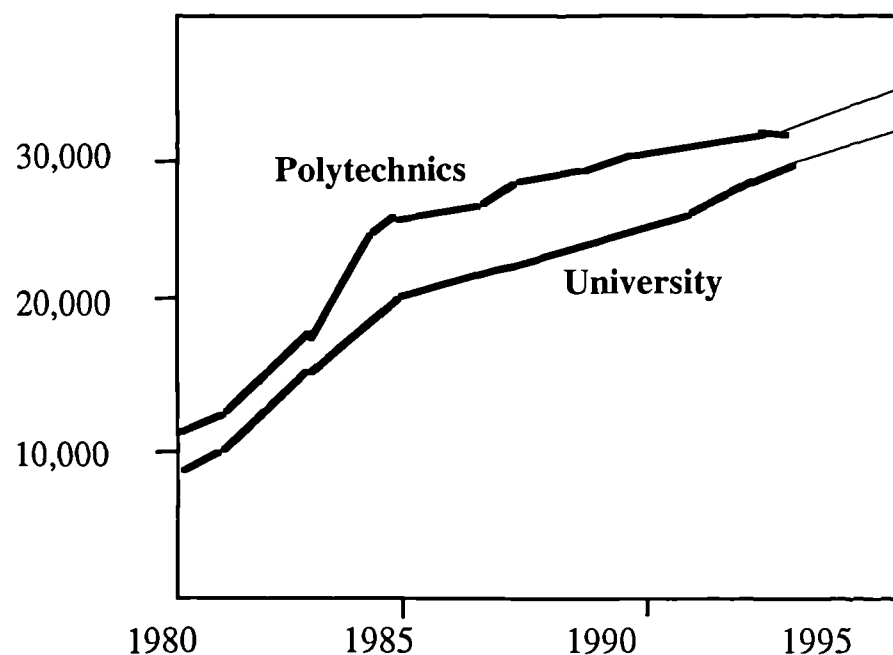
Source: Regnier, P. (1988), "SMEs in the Four Asian NIEs".

Furthermore, while much of Singapore's progress since 1960 has been achieved through inward foreign- and export-led industrialisation strategy, this growth strategy of relying heavily on foreign MNEs to provide a package of technology, management and market access may have stifled the the development of local R&D capability and enterprenuership. Thus, despite a substantial improvement in the number of students enrolled in tertiary institutions (see **Figure 4.4**), local companies are likely to difficulty in developing in-house new process and product technology. This is because the number of research scientists and engineers in Singapore is relatively small even when compared to Taiwan and South Korea (see **Table 4.28**). Related to these concerns in human resources is

Singapore's rising wages, tight labour market and ageing workforce (see Tables 4.29 and 4.30)

Figure 4.4 Number of Singaporean Students Enroled in Tertiary Institutions, 1980-1995

Number of Students



Source: Singapore Ministry of Education

Table 4.28 Number of Research Scientists and Engineers by Country, 1988-1991

Country	No. of Research Scientists per 10,000 of Workforce	Year
Japan	87	1988
USA	77	1988
W.Germany	56	1987
Sweden	51	1987
Switzerland	44	1986
Taiwan	43	1988
S.Korea	33	1988
Singapore	29	1991

Source: Singapore Science Council

Table 4.29 Singapore's Average Annual Pay Rise 1980-1992

Category of Workers	1980-1992	1990	1980
	Income Growth (%)	Total Workforce (%)	
Professional/Administrative/ Managerial/ Executive & Related Staff	3.1*	18	24
Clerical/Sales/Services & Related Workers	4.3*	28	27
Production/Transport/ Manual Workers & Others	5.6*	54	50

* over & above the average annual inflation rate

Source: Ministry of Labour,; Singapore Department of Statistics

Table 4.30 Singapore's Manpower, 1981-2000

2000		1981-1989	
Growth Rate	Median Age	Growth Rate	Median Age
0.5-0.7 % *	38 years*	1.4 %	1.4%

* Predicted

Source: Singapore Ministry of Labour

It is also worrying that the Singapore economy has been expanding at a decreasing rate since 1988 (see **Table 4.5**). It has been forecast to grow at only between 6 per cent to 7 per cent for the period 1993 to 1995 (see **Table 4.31**). However, it is still unclear whether a slowdown in the domestic economy will have an impact on Singaporean MNEs' FDI decisions and subsequently, the performance of their overseas investments.

**Table 4.31 Singapore's Future Growth Rates,
1993-1995 (in Percentage %)**

Items/Year	1993	1994	1995
Inflation	1.9	1.6	1.7
Unit Labour Cost	1.8	0.4	0.3
Labour Productivity	2.9	3.8	3.7
Real Wage Rate	4.7	4.2	4.0
GDP	5.2	6.2	6.1

Source: Econometric Studies Unit, Department of Economics & Statistics, National University of Singapore.

4.9 Summary and Conclusions

ificant economic and industrial growth. Its GDP expanded by an average of nearly 9 per cent annually and per capita income grew by almost twenty fold from S \$1,330 in 1960 to S\$22,033 in 1992 (see **Table 4.2**). At the same time, percentage share of domestic exports of total exports expanded from 6 per cent to 65 per cent with major developments in the financial and manufacturing sector (see **Table 4.2A**) Contribution from the latter was around a third of the GDP since 1980 compared to about a tenth in 1960 (see **Table 4.3**). In 1992, Singapore was the world's top exporter in terms of per capita exports (see **Table 4.6A**).

Indeed, within two decades of industrialisation, the Singapore economy has been transformed from a mere middleman to one with a diversified economic base (see **Table 4.2A**). It is now not only able to sustain foreign interest as a place for investment but is also channelling some of its savings abroad through FDI.

Records from the Singapore Department of Statistics show that since the late 1970s, Singaporean firms have begun to undertake significant investment in the South East Asian region. From the mid-1980s onwards, they also began to engage in FDI in some culturally remote industrialised countries (see **Table 4.15**). In addition, recent reports in the local press and business journals have also indicated there is an increasing number of Singaporean companies investing in the developed countries (see **Table 4.16**).

Based on the preceding review on Singapore's economic and industrial development, it is suggested that the main home environmental "push" factors influencing Singaporean FDI include:

- (i) small/saturated domestic market;
- (ii) labour shortage and rising wage costs;
- (iii) appreciation of Singaporean currency;
- (v) shortage of local research engineers and scientists;
- (vi) threat of trade protectionism by major trading partners;
- (viii) high domestic savings rate (i.e. around 45% of GDP) and
- (vii) home government's fiscal and financial assistance.

Figure 4.5 presents a strategic analysis of the Singapore economy to provide further insights of the Singapore environment. **Chapter Five** considers the appropriateness of using case studies to gather empirical evidence on how and why some Singaporean MNEs benefit from their FDI but some do not.

Figure 4.5 Strategic Analysis of the Singapore Economy

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Close government-business community working relationship • High savings rate • Good infrastructure • Highly educated workforce • Robust manufacturing & financial sectors 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Small domestic market • Lack of natural resources • Labour shortage • Highly dependent on trade and a few major markets • Heavily dependent on inward FDI
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Economic reforms in China and Vietnam • Asia Pacific Economic Caucus (APEC) • Emerging markets for "ethnic products" 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Trade Protectionism:- NAFTA/EC • "New" NIEs (e.g. Malaysia, Thailand and Indonesia) • Rising production costs • Ageing workforce

Source: Formulated by this researcher

Chapter Four

Notes

1. The following report by the United Nations made as a result of a study by Albert Winsemius in 1961, a consultant to the United Nations, could perhaps explain Singapore's zealous support to encourage foreign capital and expertise at the outset of its industrialisation process:

".....It will take some time before the domestic capacities are fully developed, labour trained, and enterprunures and capital sufficiently adapted to the manufacturing industries. For part of these elements manufacturing enterprises, needs a package deal..... For this reason, the necessity of attracting foreign cooperation on a large scale should be recognised very distinctly in the process to be pursued to promote industrialisation in Singapore".

United Nations Industrial Survey Mission Report (1963)

2. However, records from Malaysia show that since the 1960s, more established foods and beverages companies such as Yeo Hiap Seng, Fraser and Neave, Lam Soon and Malayan Breweries have had direct manufacturing investment in Malaysia. Records from the Indonesian Board of Investment show that between 1967 to 1979, Singaporean companies invested S \$68.8 million.

3. Fear of being classified as a developed country led the Department of Statistics in Singapore to devise the concept of "indigenous GNP". This term excludes the share of GNP of all foreign residents working in Singapore. In 1981, the indigenous per capita GNP was 85 percent of the per capita GNP.

4. Although Singapore's phenomenal performance and success in playing host to foreign MNEs has often been described as an "economic

miracle" [e.g. Woronoff (1986), Kaynak (1989) and Lim (1984)], various authors have warned of the "precariousness" of Singapore relying heavily on inward FDI [e.g. Porter (1990), Mirza (1987) and Chia (1987)].

Moreover, according to an American academic, Alywn Young (1992), the Singapore's government has been giving foreign MNEs large subsidies through the *Central Provision Fund* (CPF) (i.e. a compulsory savings scheme for all workers in Singapore) to support its growing craving for capital. However, this accusation was shown to be untrue by both Mr Goh Chok Tong, the current Prime Minister of Singapore and Mr Lee Hsien Loong, the Deputy Prime Minister [e.g. all workers are given up to date information of their CPF accounts and they have free access to their savings for their housing, education, medical and personal investment (e.g. to buy shares) requirements].

5. For example, in 1977, the current Prime Minister of Singapore, Mr Goh Chok Tong, who was then the Minister of State (Finance) stressed:

"if we are going to make it in our system.....we should have our own expanding pool of local entrepreneurs.....We must identify the reasons for the slow emergence of local industrialists".

6. This United Nation sponsored television documentary entitled "Singapore in the Information Age" shows how Singapore transformed itself from a trading nation with cheap labour into a bustling global business city (*Singapore Bulletin*, February 1992). When it was broadcast in Poland, the Prime Minister of Poland himself gave an introductory speech to the Polish viewers.

7. The USA withdrew the GSP for all the four "Tigers" in January 1989.

Appendix 4A The SME INITIATIVE

A Comprehensive Self-Help Package

The SME Initiative is a comprehensive self-help package for Singapore businesses. Implemented through a wide network of government agencies and private sector organisations, it puts local SMEs in touch with bankers, investors, experts and relevant government administrators, so as to give extra muscles for Singapore's entrepreneurs to gain a competitive edge.

The SME initiative helps local SMEs to grow and become independent through the following:

- Fiscal incentives and access to financial assistance;
- Technical problem solving and help in technology adoption, automation, innovation and product development;
- Exploitation of information technology;
- Expert help on productivity improvement and training;
- Practical advice on business development and help in establishing business partnership;
- Assistance in international marketing and design; and
- The Local Industry Upgrading Programme to build up the supporting industry.

The Network

1. Lead Agencies

The mission to optimise the contribution of the SME sector to the national economy is led by EDB. To develop local SMEs, EDB adopts a multi-agency approach and coordinates the effort. It also provides and coordinates the effort. It also administers the fiscal incentives, provides financial and development assistance, and initiates new SME development measures.

Singapore Institute of Standards in Industrial Research (SISIR) is the lead agency in providing technical assistance to SMEs. In addition, a R&D incubator centre has been

- The Automation Application Centre (AAC) which specialises in automation;
- The Grumman International/Nanyang Technological University (NTU) Centre (GINTIC) and Ngee Ann Polytechnic Industry Technology Enhancement Cooperation with Hewlett Packard (NITECH) on CAD/CAM;
- The Precision Engineering Institute and other EDB training centres which provide technical assistance in tool and die design and other specialised areas; and
- Innovation centres at NUS and NTU.

NCB takes the lead in promoting information technology (IT) and developing the local IT industry. Together with the Institute of System Science (ISS) and other IT resource organisations, NCB assists local SMEs computerise their operations.

NPB is the lead agency in promoting the productivity movement. It also develops and provides SME consultancy and training. In addition, NPB provides training grants for workers through the Skills Development Fund (SDF). The Enterprise Development Centre (ENDEC) of NTU is another key agency which renders financial diagnosis services to SMEs.

TDB helps local enterprises develop export markets through group promotions, individual aid and support services. Its services include international trade information, trade fairs and missions as well as guidance on product design and packaging.

Singapore Tourist Promotion Board (SPTB) assists local enterprises in the tourist industry to market their products and services overseas through joint marketing promotion. It also acts as a catalyst in developing quality tourism products especially in the areas of infrastructure and manpower.

2. Public Sectors Partners

The public sector partners in the network include:

- Universities, polytechnics and the Vocational and Industrial Training Board (VITB);
- The Singapore Science Council (SSC) which administers the R&D Assistance Scheme;
- The Construction Industry Development Board (CIDB) which assists SMES in the construction industry;
- The Primary Production Department (PPD) which promotes agrotechnology;
- The Housing and Development Board (HDB) which helps retailers in the public housing estates;

- The Ministry of Finance (MOF) and large public sector procurement agencies which help SMEs build up their track records through measures such as the provision of early procurement information; and
- The Jurong Town Corporation (JTC), Public Utilities Board (PUB) and the Telecoms infrastructure development.

The overall objective is for public sector organisations to adopt a development mindset, reduce administrative red-tape, avoid policies that place SMEs in a disadvantageous position, as well as plan and implement programmes to facilitate and promote SME growth.

3. Private Sector Partners

The four main local business bodies- the Chinese Chamber of Commerce and Industry, Malay Chamber of Commerce, Indian Chamber of Commerce and the Singapore Manufacturers' Association - together with other associations such as the Singapore Retail Merchants Association, Singapore Textile Association, Singapore Federation of the Computer Industry, Association of Small and Medium Enterprises, and the Association of Management Consultants, are the important players in the multi-agency network.

Participating banks and financial institutions include the Overseas Union Bank, Development Bank of Singapore Finance, SAL Leasing and Export Credit Insurance Corporation.

The MNE partners and consultants in Local Industry Upgrading Programme (LIUP) include foreign MNEs such as Philips, Matsushita, Maxtor and Olivetti; KPMG Peat Marwick, Arthur Anderson, Coopers and Lybrand, Ernst and Whinney and Deloitte Haskins and Sells.

Reference: EDB: SME Master Plan

Appendix 4B FEASIBILITY STUDY GRANT (FSG)

1. Objective

FSG is designed to encourage local enterprises to invest overseas for purposes of acquiring technology and to gain access to international markets for further growth. This grant is given to local companies to cover qualified expenses incurred in carrying out feasibility studies on potential investments overseas.

2. Eligibility Criteria

- a) FSG is available for local business enterprises only
- b) Local business enterprises are defined as Singapore registered companies that have at least 50% equity owned by Singaporeans (or permanent residents)

3. Types of Investment Project to be Supported

The types of investments which qualify for consideration under this scheme are those which will:

- a) provide access to technologies:
 - 1) New technologies or,
 - 2) Established & commercialised technologies, and/or
- b) Provide access to overseas markets through:
 - 1) Establishing new marketing channels or,
 - 2) Acquiring existing marketing channels

4. Major Considerations in Awarding Grant

The key consideration in providing this incentive is the extent in which the overseas investment would create *economic spin-offs* to Singapore. If the economic benefits are assessed to be substantial, the level of support is likely to be much higher. Some of the benefits that would merit favourable consideration are:

4.1 Technology

Allow us to have access to or own some R&D, design and engineering capabilities in such a way that there is some enhancement to the Singapore operations. Such capabilities include facilities, engineering and scientific personnel, patents and other specialised know-how.

4.2 Market

To provide better access to marketing channels overseas in such a way that there is some enhancement to the Singapore operations. This would include increase in production, export sales and services from Singapore.

5. Eligible Expenses

FSG would apply to eligible expenses incurred in commissioning external investment consultants, investment bankers and management consultants in carrying out feasibility studies on specific investments. Eligible expenses include:

- Travelling, accommodation and other expenses directly related to the evaluation
- Fees for patent and information search
- Consultant's fees covering activities as listed below:

- (1) Performing a thorough and comprehensive due diligence investigation of the investment;
- (2) counselling on valuation;
- (3) Structuring the investment;
- (4) Providing tax, financial and legal advice on the investment;
- (5) Assisting in negotiations;
- (6) Arranging financing;
- (7) Closing the deal; and
- (8) Documentation.

6. Quantum of Grant

The grant covers up to 50% of the eligible expenses of the studies or a sum of \$250,000, whichever is lower.

7. Project Duration

The duration for the entire feasibility study should normally not be longer than six months.

8. Disbursement of Grants

- (i) Grant disbursement is made on a reimbursement basis.
- (ii) Documentary proof of expenses are to be submitted for verification.

9. Operating Procedures & Controls

9.1 Application for Grants

Application for FSG should be made to EDB on prescribed forms before commissioning external consultants for the study.

9.2 Study Report

Companies shall be required to submit to the EDB a study report within 1 months of the completion of the study project.

(Note:-Overseas investment is defined as an activity which involves the international transfer of long-term capital for the purpose of conducting business in a foreign country. The overseas investment must be one where there is productive economic activity and where Singapore investors take an active role in decision making. Passive financial investments overseas by parties that are not involved in the strategic business decision will not be considered as overseas investment for the purpose of this incentive.)

Reference: 0627K/ah (47-50) EDB: SME

Appendix 4C OVERSEAS INVESTMENT TAX INCENTIVE

1. Objectives

The objective of the International Direct Investment (IDI) Incentive is to encourage local companies to invest overseas for purposes of acquiring technology and to gain access to international markets for further growth.

2. Benefits

The Incentive allows for any loss arising from the sale of shares in an approved overseas investment or from its liquidation, to be deducted against the investor's other income. The loss is allowed as carry-forward if there is insufficient income in the year of claim. The deduction allowed is up to 100% of the equity invested.

3. Eligibility

(a) Only local companies are eligible to apply for the Incentive. A local company is defined as Singapore registered company having at least 50% of its paid-up capital beneficially owned by citizens or permanent residents of Singapore. The investment in the overseas project by a local company must be made through a holding company in Singapore. The holding company is called overseas investment company.

(b) The approved overseas investment company must be incorporated in Singapore with at least 50% equity owned by Singaporean or permanent residents of Singapore.

4. Types of Investment Project to be Supported

The types of investments which qualify for consideration under this scheme are those which will:

(a) provide access to:

- 1) New technologies or,
- 2) Established & Commercialised technologies, and/or

(b) provide access to overseas markets through:

- 1) Establishing new marketing channels
- 2) Acquiring existing marketing channels

5. Major Considerations in Award Grant

The key consideration in providing this incentive is the extent in which the overseas investment would create *economic spin-offs* to Singapore. Some of the benefits that would merit favourable consideration are:

(a) Technology

Allow us to have access to or own some R&D, design and engineering capabilities in such a way that there is some enhancement to the Singapore operations. Such capabilities include facilities, engineering and scientific personnel, patents and other specialised know-how.

(b) Market

To provide better access to marketing channels overseas in such a way that there is some enhancement to the Singapore operations. This would include increase in production, export sales and services from Singapore.

6. Other Conditions

(a) The incentive applies to investments in shares issued by the approved overseas investment company.

(b) The investor must hold the shares of the approved overseas investment company for at least two years from the date of issue of shares, unless the loss was incurred as a result of liquidation of the overseas investment.

(c) The loss that is available for deduction would be the difference between the purchase price of the shares and the proceeds from the sale of shares. If the open market value of the shares at date of sale is greater than the sale proceeds, the open market value would be deemed as the sales price. In the case of a company that is not listed in a Stock Exchange, its net asset backing will be taken as the fair market value.

(d) Any loss arising from the sale of shares or liquidation which takes place 8 years after the date of approval of the application will not be allowed as deduction against the investor's other income.

(e) The approved overseas investment company will be issued with the certificate and will not be allowed to carry on any other trade apart from the holding of shares in the overseas project.

(Note:- Overseas investment is defined as an activity which involves the international transfer of long-term capital for the purpose of conducting business in a foreign country,. The overseas investment must be one where there is productive economic activity and where Singapore investors take an active role in decision making.

Passive financial investments overseas by parties that are not involved in the strategic business decision will not be considered as overseas investment for the purpose of this incentive.)

Reference; 0627K/ah/lsh (51-54)

CHAPTER FIVE

RESEARCH METHODOLOGY: THEORETICAL CONSIDERATIONS AND THE FIELDWORK

5.1 Introduction

There are many ways of conducting research. These include surveys, case studies, experiments and the analysis of archival information. As asserted by Smith (1989); Yin (1987) Dabbs (1982) Maanen et al (1982) and Nachmias and Nachmias (1976), the appropriateness of each research strategy will depend on the following three conditions:

- (i) the type of research questions (e.g. "who", "what", "where", "when", "how" and "why");
- (ii) the control a researcher has over the actual events under study; and
- (iii) the time period of the research focus (e.g. a contemporary as against a historical phenomenon).

This chapter begins with a summary of the aims of this research. This is followed by an explanation of this researcher's choice to use case studies as a research strategy and a review of the appropriateness of personal interviews as a data collection method. Next, it considers other possible sources of evidence that can be used to augment and corroborate the data collected from interviews. Lastly, it presents an overview of the case sampling procedure and the criteria used to select the target companies for conducting the case studies.

5.2 Aims of Research

Overall, this research aims to ascertain the impact of FDI on Singaporean manufacturing MNEs' performance and why some Singaporean MNEs benefit from their FDI and some do not (see **Chapter 1**). Meeting this research objective will involve finding answers to the following questions:

- (i) Why, how and where do Singaporean enterprises engage in FDI?
- (ii) How is a Singaporean MNE's motives for FDI related to its performance?
- (iii) Is there any relationship between a Singaporean MNE's size, type, location of FDI and the impact of FDI on its performance?
- (iv) How does a Singaporean MNE's mode of entry into the FDI route impact on its performance ?
- (v) How is a Singaporean MNE's international business experience related to the performance of its overseas venture?
- (vi) How is a Singaporean MNE's preparation and feasibility studies related to the impact of FDI on its performance?

The following sections consider in greater detail the appropriateness of using the case study approach in this research and how to maximise on this research strategy.

5.3 Case Studies as a Research Strategy: Some Theoretical Considerations

Case studies are appropriate when a researcher wishes to answer the "why" and "how" questions about the temporal links within a set of contemporary events which the researcher has little control. It is also appropriate when the use of specific examples (i.e. individual cases) can aid understanding

of a contemporary phenomenon better than findings based on analysis of aggregate data (Yin, 1987; Simon and Burstein, 1985; and Kidder, 1981; Miles, 1979).

5.3.1 Definition of Case Study

A case study can be defined as an empirical inquiry which investigates a contemporary phenomenon within its real-life context. It is used when the boundaries between a phenomenon and context are not clearly evident and when multiple sources of evidence are possible (Smith, 1989; Yin, 1987, 1981a; Miles, 1979 and Davis, 1976).

In other words, a case study is a detailed examination of an event or series of related events which the analyst believes reflects the operation of some identified phenomena. It is a presentation and interpretation of detailed information about a single subject using multiple sources of evidence and based on some general theoretical propositions (Smith, 1989; Burgess, 1988; Yin, 1987; Hakim, 1987).

5.3.2 Functions of Case Studies

Drawing on studies by Eckstein (1975), Burgess (1988) asserts that case studies can serve "rhetorical or logical functions". Rhetorical functions are concerned with the presentation of specific arguments while logical functions range from tentative and exploratory studies to strong assertions. They define abstract terms or special usages. They aid understanding by giving examples and enhance memory via the use of rich and specific details. Thus, case studies provide empathy, make a phenomenon visible as

well as offer insights to the existing situation. Consequently, they have the power to persuade the reader to support the arguments presented.

In other words, unlike survey or quantitative methods which are useful only for the investigation of the more rational aspects of behaviour and motivation, case studies prevent the researcher from missing the subtleties and idiosyncrasies of individual or organisational behaviour (Cooper and Rantwaite, 1977).

Case studies (Burgess, 1988) can also be subdivided into four logical functions. First, case studies can be used to reach instrumental rather than terminal conclusions (i.e. they have an exploratory function). Secondly, inferences for future case studies can be developed (i.e. they have a predictive function) from existing case studies. Thirdly, case studies can be used to generate implications that are beyond a particular case that is under study. They give a profile of any long-term interactive process that may exist and are useful for generating a hypothesis (i.e. they have a descriptive function). Lastly, generalised findings of case studies that are representative of a population can be used to develop theories or where applicable, findings of a single case in itself can be analytically generalised to some broader theory (i.e. they have an explanatory function).

5.3.3 Criticisms of Case Studies

As Majazrack (1984) suggests, a daunting but crucial task in any research is to choose a topic and then define its scope of study. As a case study proceeds, the original research questions may become inappropriate for the

research problem due to slippage. Thus, case studies have been criticised for lack of rigour.

Moreover, according to critics of case studies, it is difficult to generalise from one case to another. It is also time consuming to collect data and write-up a case form (Krause and Miller, 1974). However, it must be recognised that because case studies rely on "analytical generalisation" (Yin, 1987, p.39), an analyst should only strive to generalise a particular set of empirical evidence to a broader body of knowledge.

Clearly, unless statistical generalisation is applied to analyse the findings (e.g. in the case of survey research), no set of cases, irrespective of its size, can be reasonably generalised to a larger universe. There is also no optimal way to ascertain the ideal number of cases (Smiths, 1989). Rigour can be ensured if an appropriate research design is used in the first place.

Indeed, quantitative methods of research can also suffer from lack of rigour (Glaser and Strauss, 1967; Mintzberg, 1979; Van Maanen, 1979).

For example, some organisational researchers had such experience:

"Our (quantitative) data manipulation techniques have become increasing complex, mathematically sophisticated and governed by strict assumptions, but paradoxically, our interpretative frameworks which make such data meaningful have grown looser, more open-ended, fluid and contingent".

Van Maanan (1979, p. 522).

In regard to the complaint on time factor, it is useful to recognise that having an appropriate research design at the onset of the research can also help to expedite data collection and analysis. Indeed this applies to any other research strategy. The following sections provide some general guidelines to developing effective research design.

5.4 Case Studies Research Design

In essence, a research design is the logic that connects empirical evidence to a study's research questions, and ultimately, to its conclusions (Yin, 1987). It is a plan that guides the researcher "in the process of collecting, analysing and interpreting data" (Nachmais and Nachmais, 1976, p.77) or a "blueprint" of research which deals with at least four problems:(i) what questions to study, (ii) what data are relevant (iii) how to analyse the data collected and (iv) how to interpret (Phillibe et al, 1980).

5.4.1 Components of Research Design

For case studies, a research design should include components such as research questions, research propositions, the units of analysis to be investigated, any logical links between data to be collected and the research propositions as well as specific criteria for selecting the unit of analysis and interpreting the research findings (Yin, 1987,1981a,1981b; Cooper,1984; Campbell, 1982; and Lucas, 1974). The rationale of having each component and the procedures to defining and developing it are highlighted in the following sections.

5.4.2 Research Questions

Research questions are important because the aim of a research design is to ensure that the empirical evidence that will be gathered addresses the research problem. A comprehensive review of previous research and theoretical literature should help a researcher to develop sharper and more insightful questions about the research topic. For example, having ascertained that to address the research problem involves asking mainly "why" and "how" questions rather than the "who", "what" and "where" questions, a researcher will more often than not opt for case study (as the most appropriate research) strategy.

5.4.3 Research Propositions

Propositions or hypotheses reflect theoretical issues. They act as pointers to where to look for relevant data and help a study to stay within feasible limits. For example, having developed a specific proposition based on published theoretical and empirical literature, a researcher logically will consider how to verify it. That is, a researcher will focus on certain data and ignore others.

5.4.4 Unit of Analysis

In regards to units of analysis, determining them will depend on the given research propositions and the research questions of the study. Having clearly defined units of analysis will allow a researcher to examine a theory even within a single case. The definition of each unit of analysis should be logically linked to the research problem and previous studies to allow a comparison of one's findings with previous researchers'.

In other words, the unit of analysis should not be defined idiosyncratically. The key to defining and developing it into an operational "case" to study is to examine and integrate existing empirical and theoretical literature. Specific time parameters must be applied to define the beginning and the end of a selected case. This will help to ensure that the research stays within its boundaries.

5.4.5 Selecting "a Case"

It must also be recognised that a "case" can consist of the following:

- (i) an individual (e.g. an individual company within a specific industrial sector, a particular group of industries or a specific type of person within a community);
- (ii) a geographical area (e.g. a particular neighbourhood, a country or a region); or
- (iii) a phenomenon or an event (e.g. a behaviour or a programme or a decision or even consequences of the decision made).

Overall, the selection of each case should always be based on its explanatory power rather than how representative it is. Thus, the presentation of the "best cases" should also be confined to the "best elements" within each specific case which would most effectively reveal the body of theories investigated (Smith, 1989; Yin, 1987; Silverman, 1985 and Mitchell, 1983).

5.4.6 Linking Data to Propositions

A consistent line of argument (e.g. to support or refute a general proposition or specific hypothesis) will be achieved if provisions are made to establish links of data to propositions or hypotheses during the research design stage. For example, one can use Campbell's (1975) idea of "pattern-matching" to establish links of several sets of information from the same case to a specific hypothesis or general proposition.

5.4.7 Criteria for Interpreting Findings

While criteria for interpreting findings of a research can be as many and as varied as they can be, here again, consistency can only be achieved in one's argument if a researcher has precisely clarified these criteria to ensure that the reader will be able to follow the initial research question to the researcher's ultimate conclusions. For example, a researcher could clarify explicit links of questions asked and data collected (from on multiple sources) and thereafter establish these links to the existing empirical and theoretical literature as well as to the researcher's own conclusions.

5.4.8 Validity and Reliability Tests

In other words, besides following the preceding guidelines, effective research design and subsequently, the quality of findings, of case studies can be ensured if validity and reliability tests are made while a "case work" is still in progress (i.e. before a researcher ultimately draws any conclusive interpretation from the findings).

Table 5.1 gives a summary of stages in the research process at which to apply these validity and reliability tests. It also provides an outline of what constitutes each of these tests (i.e. those that have been identified by Easterby-Smith et al, 1991; Kinnear and Taylor, 1987; Kidder, 1981; Yin, 1981; Murphy, 1980; Jacoby, 1978).

5.4.9 Techniques to Improve the Quality of Case Studies

The benefits of case studies over other research strategies can be maximised if a researcher applies three basic "quality control" techniques while conducting case studies (see **Table 5.1**). First, evidence should be collected from multiple sources so that findings can be based on the convergence of information from different sources, not quantitative or qualitative data per se.

Secondly, a formal collection of evidence distinct from the final case study report should be made so that other investigators can review the evidence directly. The draft report of this data base should also be sent to the respondents to check for factual and interpretative accuracy. This retrievable "document base" can then be used review for a separate and secondary analysis, independent of any reports by the original researcher.

Lastly, links (i.e. chain of evidence) of the questions, the data collected and the conclusions drawn should be explicitly established. This will enable a reader of the case study report to follow the researcher's initial research questions to the ultimate conclusions or vice versa.

Table 5.1 Validity and Reliability Tests for Case Study

Test	Tactics	Stage of Research
* Construct validity	Use multiple sources of evidence Establish chain of evidence Have key informants review draft case study	Data collection Data collection Thesis write-up
* Internal validity	Do pattern matching Make inferences Do time-series analysis	Data analysis Data analysis Data analysis
* External validity	Use replication logic in multiple case studies	Research design
* Reliability	Use case study protocol Develop case study data case	Data collection Data collection

Source: Case Study Research: Design and Methods (Yin 1987, p.36); adopted with slight modifications.

*** Keys:**

* Construct validity: establishing correct operational measures for the concepts being studied (i.e. to fulfil the research objectives);

* Internal validity: ascertaining the relationships of variables, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships (i.e. applicable to explanatory studies only);

* External validity: identifying the domain to which a study's findings can be generalised; and

* Reliability: demonstrating that the operations of a study (e.g. data collection procedures and analysis techniques) can be repeated and produce the same results.

The following sections outline the possible sources of evidence open to a researcher using the case study as a research strategy and attempts to justify this researcher's option in the context of this empirical study.

5.5 Sources of Evidence

The sources of evidence for case studies which a researcher can incorporate into the research design (Yin 1987; Adam and Schvaneveldt, 1985; Miln and Vineall 1977) include the following:

- (i) interviews (e.g. personal interviews with the key informants in the company),
- (ii) documents (e.g. written reports in the mass media of investments undertaken by specific firms, publications by official organisations such the Department of Statistics),
- (iii) archival records (e.g. company's annual reports, newsletter, memoranda and invoices),
- (iv) physical artifacts (e.g. a company's products or technological device),
- (v) direct observation (e.g. a field visit to the case study "site") and
- (vi) participant-observation (e.g. playing a role in the events being studied).

In the context of this research, it is this researcher's view that the first four sources of evidence are more relevant than the last two. The following sections show why this researcher has chosen to use in-depth personal interviews against mail questionnaires to corroborate and augment evidence from the other three sources (i.e. documentary reports or official publications, company annual reports and companies' products).

5.5.1 Personal Interviews as Data Collection Method

At the Academy of International Business Annual Meeting panel in San Francisco, Professor Robert Vambery, Editor-at-Large of Journal of International Business Studies, expressed reservations on the widespread use of mail questionnaires for empirical research in international business (Dymsza, 1984). This researcher also takes the view that while mail questionnaires represent economical means of surveying a large population, they present some significant methodological problems. For example, first, mail questionnaires do not permit probing into deeper feelings. The possibility of inherent bias with the qualitative aspects of results in the findings should therefore be recognised.

Indeed, when many bias occur, the relevancy of findings cannot be improved even with the application of sophisticated statistical techniques. The use of multiple-choice questions is a case in point. Attitudes tend to be imposed on respondents, not allowing them to express themselves in their own terms. Arguably, even when an alternative of "other (please specify)" is open to respondents, there is a tendency that they will choose from the given alternatives rather than the "other" alternatives.

Secondly, it is difficult to ensure that a mailed questionnaire will be answered only by the person (i.e. the addressee or key informant) most competent to answer it. Indeed, even if the questionnaire is answered by the key individual whom the researcher has selected, very little is known regarding how much attention the respondent will give to the answers.

Thirdly, the questions may be interpreted in various ways by respondents, and in the international business field, the responses are also more prone to distortions by cross-cultural variables such as language and social norms.

Fourthly, personal interviews are usually highly involving to the respondents once the interviewer is able to establish trust and rapport with the former. As a data collection method, it elucidates complex behaviour as it permits probing into deeper feelings. Attitudes are not forced on respondents. They are, therefore, allowed to express their attitudes in their own terms and the interviews can be adapted to respondents when the need arise.

Lastly, in the context of this study and given the small geographical size of Singapore (where travel from one end of the country to the other end is a matter of around than an hour) and the small population of the target sample of manufacturing companies (see **Figure 5.1**), personal interviews are arguably, the best data collection method.

5.5.2 Limitations of Personal Interviews

As some authors of research methodology have also cautioned (Yin, 1987; Kinnear and Taylor, 1987; Smith et al, 1990; Gordan and Longmeid 1988), while personal interviews are seen to be more appropriate than mail questionnaires as sources for qualitative data, they can also present some methodological problems. For example, it must be recognised that because interviews are verbal reports, they are subject to problems such as interviewer and interviewee bias as well as poor or inaccurate articulation by both the former and the latter. Correlating data obtained from interviews with information from other sources (such as documentary evidence) should help to overcome these limitations.

5.6 The Need to Justify the Selected "Cases"

In summary, the reasons in favour of the use of case studies are the diversity of applications and flexibility of case studies methods which a researcher can use to generate insightful data. It is particularly useful when a researcher wants to investigate (i.e. to answer to the "how" and "why" questions) a contemporary phenomenon within its real-life context. They are also applicable when the parameters between the former and the latter are not clearly evident.

However, underlying these potential benefits, there is still a need to justify why specific case studies are chosen in the first place. Moreover, in empirical studies where key informants can only provide subjective evidence to strengthen the plausibility of a theory or refute a propositions, there is also a need to examine whether it is possible to have a quantitative

dimension to the qualitative data to be collected from the chosen case studies.

Quantitative data would provide objective evidence to establish a construct in the context of the research objectives to be achieved in this study. The following sections attempt to address these issues. They present the sampling methods used and the sources of information available to this researcher to complement the information derived from personal interviews with the selected case companies. An outline of the profiles of the selected companies is also presented.

5.7 Target Population and Case Sampling Method

The target population consists of Singaporean industrial MNEs with FDI in activities related to their core manufacturing business. Based on the experience of previous researchers (Grant, 1987; Yoshihawa, 1985; Buckley et al, 1988,1977; Siddharthan and Lall, 1982; Shaked, 1986; and Kaman, 1984), it is clear that a comparative approach using a sample of MNEs and non-MNEs will be relevant only if financial measures (e.g. profitability, sales turnover, sales growth, and rate of return on investment) are to be used to evaluate the positive or negative impact of FDI upon a firm's performance.

In other words, it is obvious that only MNEs will have a perception of whether their specific overseas subsidiaries have been instrumental to the achievement of their non-profit oriented objectives (e.g. to acquire new foreign technology or to gather ongoing foreign marketing intelligence).

5.7.1 Criteria for Selection

This sample consists of Singaporean industrial MNEs with FDI in activities related to their manufacturing activities. The criteria the researcher used when selecting the Singaporean manufacturing MNEs were made under these general headings:

- (i) Listed in the Singapore Stock Exchange (SES);
- (ii) Industry - FDI in activities related to its manufacturing business;
- (iii) FDI destination - FDI in at least six foreign countries, one of which must be manufacturing investment in advanced industrial nations (i.e. in Northern America, Western Europe and/or Japan);
- (iv) Size - among the "Top 50 listed companies" by sales turnover as on 31st August 1991 (see **Appendix 5A**);
- (v) Company's FDI experience in overseas manufacturing operations - at least five years.

5.7.2 Justification of Criteria

The preceding criteria were applied firstly, because financial data provided in company annual reports are both the most accessible and reasonably standardised information. Thus only firms listed in the SES are included.

Next, because it is likely that firms in varied industries are affected differently and will respond idiosyncratically to the same internal and external factors (see **Chapters 2 and 3**), the sample only consists of companies in the manufacturing industry.

Moreover, because it is hypothesised that Singaporean firms seek to acquire advanced foreign technology and marketing intelligence in their

FDI operations (and other motives), it follows that their FDI destinations have to include at least one advanced industrial nation (i.e. in Western Europe, North America or Japan) and at the same time, satisfy the working definition of an MNE in this study (see **Chapter 1**).

In addition, to ensure that the selected cases consider their operations on a world-wide basis (Robbock and Simmons, 1985; Bartlett and Ghoshal, 1989) and to provide for comparison with findings of previous research (see **Chapter 3**), the selected Singaporean MNEs' overseas operations must be significant. They must, therefore, have direct investment in at least six countries foreign countries.

Furthermore, because it is possible that the relative size of a firm can confound an assessment of impact of FDI on its performance, only companies which are in the "*Top 50 Companies Listed in Singapore*" category, as on August 31 1991, (see **Appendix 5A**) are included.

Lastly, because the analysis of some variables (e.g. a time lag between an investment and its subsequent impact upon the investing firms' performance) can only be operationalised if it is related to a given period of time, only firms which have FDI in the manufacturing activities for at least the last five years are included.

5.8 Data Collection

Two sets of secondary data on the nature and extent of Singaporean outward FDI were deemed necessary prior to conducting the case studies.

These are: (i) statistical data on Singaporean outward FDI and (ii) profiles of Singaporean MNEs.

5.8.1 Statistical Data on Singaporean Outward FDI

As a starting point, the researcher made an exploratory field research to ensure that the data or information which will be essential to this study actually exists and subsequently, ensure that there is sufficient scope in this study. This activity was prompted by the fact that all researchers (e.g. Hill and Pang, 1991; Aggarwal, 1990, 1985; World Bank, 1989; Lim and Teoh 1986; Pang and Karaman, 1985; Lecraw, 1985) on Singaporean FDI concurred that the Singapore government does not collect or keep any information on Singapore's FDI outflows.

The International Direct Investment (IDI) is a strategic business unit in the Singapore Economic Development Board (EDB) that is in-charge of helping Singapore-owned firms to undertake FDI. Through the IDI, the researcher managed to gain access to the key people responsible for collecting and keeping the unpublished data (see **Chapter 4**) and information on Singapore's outward FDI within the Department of Statistics (1) and the EDB (2). The researcher also managed to get the names of Singaporean MNEs which have geographically diversified operations and the names of senior executives directly responsible for their overseas operations and investment decisions (3).

5.8.2 Profiles of Singaporean MNEs

Information on the total population of Singaporean industrial firms listed on the SES with FDI in operations related to their core manufacturing

activities is mainly found in these two publications: (i)*Handbook of Singapore Companies* (1991/2) and (ii)*Directory of Singapore Company: Buku Merah* (1991/2).

Before this researcher set out to conduct the interviews, preliminary information pertaining to the type of businesses the selected companies were involved in, their addresses, the size of their operations (by sales turnover and capitalisation), the number and locations of their subsidiaries, and their mode of entry (by acquisition, joint venture, or greenfield) was thought to be useful. This information was obtained from the following publications:

- a. *Handbook of Singapore Companies*, (1989-92);
- b. *Directory of the Singapore Manufacturers' Association*..
- c. *Singapore Manufacturers and Products Directory* (1991-2);
- d. *Singapore Industrial and Commercial Producers Guide*, (1991-2);
- e. *Who Owns Whom in the Far East and Australiasia*, (1991);
- f. *KOMPASS - Singapore*, (1991);
- g. *Asia Business*, (various years);
- h. *Business Times - Singapore* (various years);
- i. *Electronic Business Asia* (various years);
- j. *Company Annual Reports* (various years);
- k. *Singapore Investment News*, (various years); and
- l. Recent press reports (e.g. *Financial Times*; *The Straits Times*; *The Straits Times Overseas Weekly Edition*).

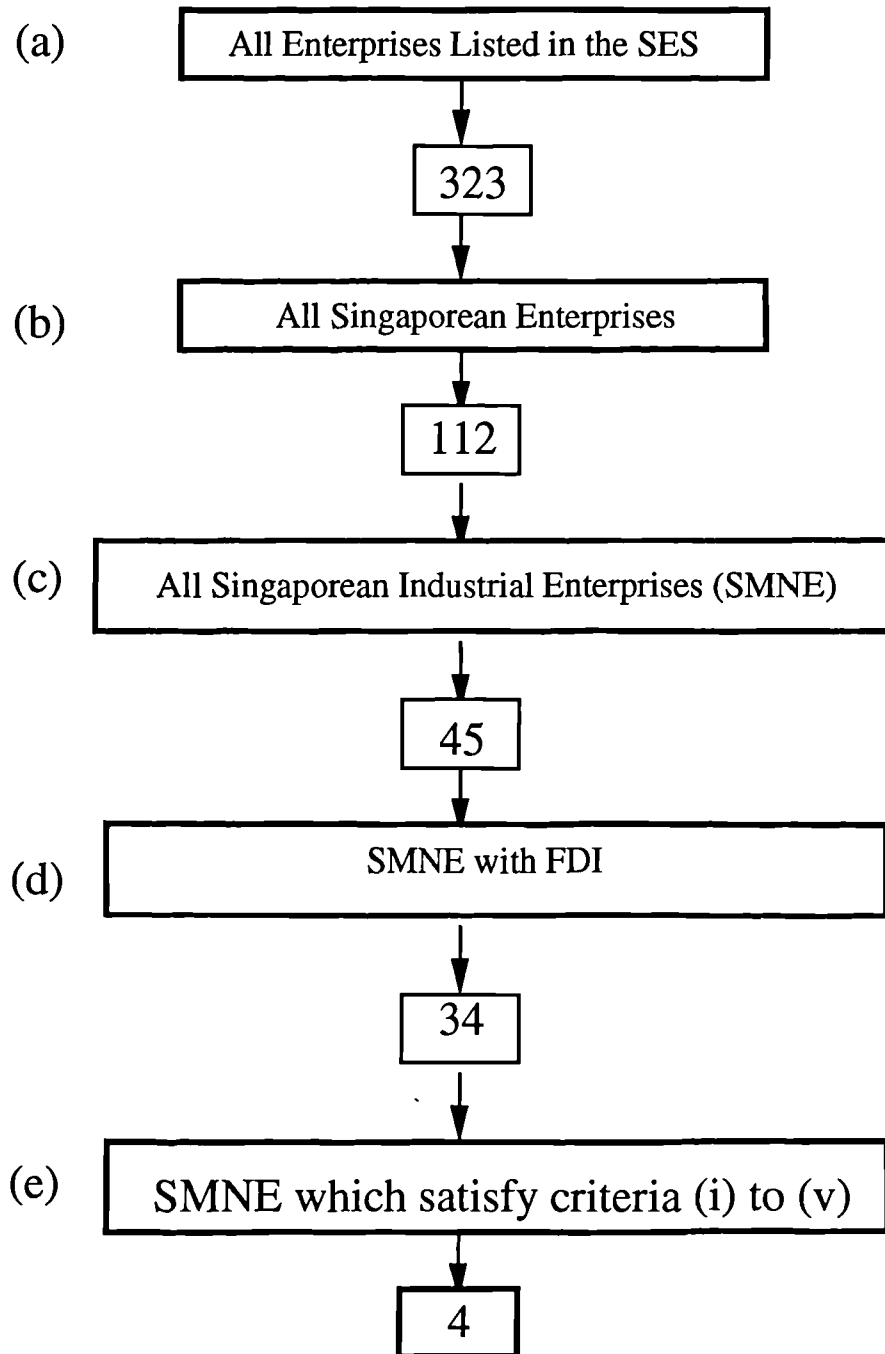
5.8.3 Profiles of the Selected Case Companies

Figure 5.1 gives the preliminary elimination process which this researcher had undertaken to select the case companies based on the preceding criteria. Table 5.2 gives the profiles of three of the four case companies selected for this research identified through this process. These four companies were: *Yeo Hiap Seng Limited (YHS)*, *Wearnes Brothers Limited (Wearnes)*, *Times Publishing Limited (TPL)*, and *Singapore Aerospace (SAe)*.

Through contacts made during the exploratory stage of the research and this researcher managed to gain access to all of the four selected companies. However, SAe was eventually dropped from this case studies because of the nature of its business. The information this company had given to this researcher was not detailed enough to allow her to make meaningful analysis and conclusions. For example, because 60 per cent of SAe's total sales were related to the defence industry at the time of the interviews, key issues of this research such as the impact of its overseas manufacturing operations (e.g. in the USA and Taiwan) on the parent company's technology and marketing functions in Singapore were considered too sensitive for discussion.

Moreover, given the short history (i.e. albeit 7 years) of its FDI activities, it was difficult to assess how SAe's overall overseas operations impact particularly on its product and process development, distribution, and promotion strategies. For instance, this researcher was told that the conceptual period of a new aircraft model or a major component in itself would usually take at least a decade. It is also anticipated that the commercialisation of a new product would probably also take just as long.

Figure 5.1 The Sampling Process



Sources: *Handbook of Singapore Companies (1992)*, *Singapore Kompass (1992)* and *Singapore Registry of Company*.

Note: The figures in the boxes indicate the number of each particular population. The size of the population is very small indeed by international standards. In percentage terms, however, this figure is very large (e.g. 75% of Singaporean manufacturing enterprises engage in FDI).

Table 5.2 Profiles of Selected Case Companies (as at end September 1992)

Company	Core Business	Year Founded	Total Sales (\$ \$mn)	% of Sales Abroad	Pre-tax Profits (Losses)	Total Assets (\$ \$bn)	% of Assets Abroad	Total Staff	% of Staff Abroad	Host Country	Type * of Subsidiary
<i>Times Publishing Limited</i>	Publishing & Printing	1968	535	60	40.1	6.50	60	2300	65	USA	S
										UK	M/S
										Japan	S
										Australia	M/S
										Hong Kong	M/S
										Thailand	S
										Indonesia	S
										Malaysia	S
Brunei	S										
<i>Wearnes Brothers Limited</i>	Electronics	1912	959.5	90	(17.7)	9.35	75	5000	75	USA	M/S
										UK	M/S
										Germany	M/S
										China	M/S
										Hong Kong	M/S
										Malaysia	M/S
										Indonesia	M/S
										Brunei	S
<i>Yeo Hiap Seng Limited</i>	Foods & Beverages	1900	341	75	2.7	75	75	4000	80	USA	M/S
										Canada	M/S
										Peru	S
										China	M/S
										Hong Kong	S
										Indonesia	M/S

* Keys: 1. M denotes a manufacturing or production subsidiary.
2. S denotes a sales & marketing subsidiary.

Source: This researcher (see Chapters 6, 7 & 8).

5.8.4 Pilot Study

In early June 1992, this researcher conducted a pilot study. The purpose of this study was to ensure that the measures of impact of FDI on the case companies' performance and managerial behaviour were operationable and at the same ascertain that the wording in the questionnaire was unambiguous and in reasonable logical sequence.

The study consisted of in-depth interviews with senior executives in three "dummy cases" in Singapore. These cases were among those Singapore-based industrial MNEs which had only failed to met only four criteria - they have direct investment in only five countries and one of which is manufacturing operations in the developed countries.

Based on this experimental study, this researcher made some changes in the wording and structure of the semi-structured questionnaire that was used for personal interviews with the actual case companies.

5.8.5 Conducting the Interviews

The in-depth personal interviews with the case companies were conducted between late June and August 1992 with senior executives of parent companies in Singapore. The key informant techniques were used and consequently, the interviewees in each case company were high ranking executives who were directly responsible for their companies' international operations. Several executives per sampling unit (i.e. in each parent company) were interviewed and all the respondents were requested to take an organisational perspective (see **Appendix 5B**).

Except for one interview, all the interviews were cassette recorded. Each interview lasted around two hours on average. After the interviews, this researcher also requested for access to the case companies' internal publications, archives, videos and factory floor whenever possible. She also asked for permission to "get back" to the key informants (i.e. through (telephone) interviews).

This research only focuses on the impact of FDI on the investing MNE's performance from the parent company's perspective. This research boundary was made at the outset of this research on the basis of time, resource and cultural constraints which both this researcher and her primary supervisor recognised. For example, if overseas subsidiaries companies had to participate in the interviews, than it would only be feasible that the sample consists of only those Singaporean MNE with operations in the UK. This follows that one of "the exemplary case" such as YHS (see **Chapter 6**) had to be excluded from this research as it does not have any subsidiary in Europe.

Moreover, during this researcher's visits to the case companies' production sites, this researcher incidentally met some senior managers of overseas subsidiaries (e.g. in Wearnes and TPL). but was explicitly told by her key informants that interviewing the senior executives from overseas subsidiaries would be deemed inappropriate. There was general consensus among the interviewees that an issue such as impact of FDI on the *investing firm's* performance should not be discussed at subsidiary level because it is likely that managers of any subsidiary would tend to take a more parochial view of its contributions. For example, in Wearnes' General Manager (International Sales and Marketing) Mr Hoong Bee Teck's words,

"any (overseas) subsidiary's CEO would fall in love with his own company and not see the strategic links of some of its own operations with the overall organisation's international units along the value chain".

In addition, as TPL's Group Senior Vice President (International Commercial Printing), Mr Ricky Ang said, there could be some corporate cultural constraints (e.g. TPL, Wearnes and YHS exercise tight control over their overseas subsidiaries). The subsidiary companies would need the approval of their parent company in Singapore before they can give any information to this researcher.

5.8.6 Draft Report on Interviews

Before the actual case study report for this research (see **Chapters 6, 7 & 8**) was written, this researcher presented a draft to the respondents and asked them to check for factual and interpretative accuracy of the information gathered from the interviews and other sources (e.g. documentary evidence and observation). The comments received from the key informants from each case company became the entire part case study. From a methodological standpoint, getting the participants to review the "draft case" would help to improve the quality of the case studies (Yin, 1987; Buchanan et al, 1987).

5.9 Method of Data Analysis

The unit of analysis is the individual company. Prior to the fieldwork, this researcher had developed two conceptual frameworks (see **Chapter 3, Figures 3.1 & 3.2**) and eight propositions (see **Chapter 1**) based on the

existing theoretical and empirical literature see. With these models and propositions, the researcher mainly adopted the "pattern-matching" and comparative methods (i.e. as suggested by Yin, 1987; Cook and Campbell, 1979) to analyse the data collected during the interviews and from other sources (e.g. the companies' internal documentary evidence and local press reports). These methods were supplemented by content analysis and explanation-building mode of analysis (Yin, 1987) to draw in-depth inferences of the complex inter-dependent and interactive relationships of the elements studied in each case.

5.10 Structure of Case Presentation

The three cases are presented separately (see **Chapters 6, 7 and 8**) to allow the reader to look at each particular case company and see how and why its FDI has an impact upon its performance. The cases are also presented in a similar sequence. This makes it easier for the reader or analyst to identify the similarities and differences among them. It also facilitates the comparison of any one specific dimension of impact of FDI (e.g. its negative or positive impact on the parent plant's product and process technologies) across all the cases.

The general structure of presentation for each case company is as follows:

- *Company Background*
 - growth and origins

- *Nature and Extent of FDI:*
 - geographical distribution of employees, assets and subsidiaries

- tabulation of overseas subsidiaries and their main activities
- business and ownership strategy, trends

- *Company's Motivations for FDI:*
 - by regions/countries

- *Series of Empirical Evidence on How FDI Impact on Company's Performance in:*
 - production & technology management
 - marketing management
 - human resource management
 - procurement management
 - financial management

- *Factors Influencing Performance*
 - company's preparation and feasibility studies
 - company's international business experience
 - other factors

- *Links between Findings, Research Propositions and Conceptual Frameworks*

- *Case Summary and Conclusions*

5.11 Summary and Conclusions

There is no universal ideal method for conducting research in all situations. Based on the existing theoretical and empirical literature on FDI in general

and Singaporean MNEs in particular (see reviews in **Chapters 2, 3, and 4**), it is argued in this chapter that the case study is the optimal method for this research.

The case study method is also considered the most appropriate method in the context of this research because the researcher has access to multiple sources of evidence to investigate the contemporary impact of FDI upon the investing firms' performance within its real-life context.

This researcher applied five criteria to ensure that the sample was selected on the basis of their explanatory power. All the final three large Singaporean industrial MNEs have more than half of their total assets employed in at least six foreign countries. Thus, the evidence gathered from these investing companies on the "why" and "how" of impact of FDI upon their performance is unlikely to be representative of Singapore-based industrial MNEs which have less significant and geographically diversified direct investments.

The following three Chapters (i.e. **Chapters 6, 7 and 8**) present the findings and analyses of the three case companies. Each case is presented separately and in similar structure. This method of presentation makes it easier for the analyst or reader to identify the similarities and differences in the empirical findings between them. It allows the reader to look at each case at a time and at the same time, make in-depth comparison of any one specific characteristics of the variables studied across all cases.

Chapter Five

Notes

1. The data on the outward flows of Singaporean FDI was first published in November 1991. This researcher's key informant to the unpublished data was Mr Ho Shih Chuan. However, access to the unpublished information was given to this researcher only when she agreed to use it for her own research purpose. She also agreed to get the Singapore Department of Statistics's permission if she intends to publish the information.

2. Through Mr Christopher Lim, senior executive of the *International Outward Investment Unit*, Singapore Economic Development Board (EDB).

3. Appointment for the personal interview(s) with each executive was made through a letter and a covering letter from this researcher's secondary supervisor, Professor Stephen Young. This researcher managed to gain access to all the companies approached (i.e. including all the "dummies companies" for the pilot study).

Based on this researcher's experience, official organisations such as the EDB, the Singapore Manufacturers' Association, the Singapore Department of Statistics can be very useful "links" to Singaporean companies. It is recommended that future researchers active in Singapore seek the assistance of these organisations or gather some information of their subjects of study from them before conducting the actual fieldwork.

Appendix 5A

THE TOP 50 COMPANIES LISTED IN SINGAPORE
As at end of May 1992, Excluding Banks (All Figures in S\$ Million)

Rank/Company	Sector	Year end	Profit (loss) as % of									
			Sales	% rise (fall)	Pretax profit (loss)	% rise (fall)	Total Assets	Sales	Assets	Stockholder's Equity		
1. Singapore Airlines	Aviation	Mar 91	944.8	(2.8)	1,161	(19.2)	9,059	23.5	12.8	18.6		
2. Singapore Petroleum Corp.	Energy	Dec 91	1,571	32.0	68	161.5	298	4.3	22.8	27.1		
3. Keppel Corp.	Diversified	Dec 91	1,400	37.3	225	45.2	4,878	16.1	4.6	17.5		
4. Neptune Orient Lines	Shipping	Dec 91	1,333	0.8	68	(12.8)	2,914	5.1	2.3	8.0		
5. Fraser & Neave	Foods	Sep 91	1,292	11.2	142	(8.4)	1,593	11.0	8.9	21.1		
6. Wearne Brothers	Electronics	Sep 91	836	48.8	52	20.9	927	6.2	5.6	11.2		
7. Inchcape	Motors	Dec 91	829	(9.6)	103	(14.2)	673	12.4	15.3	22.5		
8. Cycle & Carriage	Motors	Sep 91	828	49.2	83	53.7	627	10.0	13.2	18.4		
9. Natsteel	Construction	Dec 91	784	49.9	79	29.5	830	10.1	9.5	21.7		
10. Intraco	Trading	Dec 91	776	(0.1)	10	(54.5)	273	1.3	3.7	5.8		
11. Asia Pacific Breweries	Foods	Sep 91	766	15.5	96	(5.0)	707	12.5	13.6	20.9		
12. Amcol	Trading	Dec 91	719	24.6	52	271.4	517	7.2	10.1	17.4		
13. Times Publishing	Media	Aug 91	619	10.1	45	21.6	631	7.3	7.1	10.5		
14. Haw Par	Textiles	Dec 91	582	3.7	38	52.0	495	6.5	7.7	10.2		
15. Singapore Press Holdings	Media	Aug 91	532	15.9	194	43.7	700	36.5	27.7	39.6		
16. Cold Storage Holdings	Foods	Jun 91	442	16.9	41	32.3	900	9.3	4.6	8.5		
17. Sembawang Shipyard	Marine	Dec 91	436	10.1	77	22.2	740	17.7	10.4	18.0		
18. City Developments	Property	Dec 91	432	40.7	85	18.1	2,855	19.7	3.0	11.3		
19. Sime Singapore	Motors	Jun 91	430	(10.0)	45	18.4	375	10.5	12.0	32.6		
20. Singapore Bus	Transport	Dec 91	397	3.4	54	(15.6)	708	13.6	7.6	13.7		
21. Cerebos	Foods	Jul 91	387	8.8	47	0.0	307	16.6	15.3	26.6		
22. Jurong Shipyard	Marine	Dec 91	386	21.8	71	44.9	513	18.4	13.8	31.8		
23. Far East Levingston	Marine	Dec 91	381	89.6	37	37.0	656	9.7	5.6	10.5		
24. Metro	Retail	Mar 91	363	(8.8)	22	(4.3)	275	6.1	8.0	13.5		
25. Gold Coin	Trading	Dec 91	347	(38)	18	(10)	149	5.2	12.1	21.2		

continue

Appendix 5A (continued)

26. Singapore Shipbuilding	Marine	Dec 91	335	458.3	20	150.0	311	8.0	6.4	32.8
27. United Industrial Corp.	Diversified	Dec 91	327	21.6	10	(47.4)	4,212	3.1	0.2	0.6
28. Lum Chang	Construction	Jun 91	323	23.8	13	8.3	468	4.0	2.8	10.7
29. JC-MPH	Construction	Mar 91	305	(13.8)	16	(20.0)	443	5.2	3.6	7.1
30. Yeo Hiap Seng	Foods	Dec 91	304	22.6	6	(53.8)	426	2.0	1.4	3.3
31. CMB Packaging*	Foods	Dec 91	303	30.6	24	14.3	284	7.9	8.5	16.8
32. Inno-Pacific	Foods	Dec 91	289	35.7	(4)	359.2	238	(1.4)	(1.7)	(5.4)
33. Parkway Holdings	Property	Dec 91	279	61.3	54	5.9	990	19.4	5.5	8.9
34. British America Tobacco	Foods	Dec 91	254	27.0	41	28.1	124	16.1	33.1	57.7
35. Singapore Aerospace	Aviation	Dec 91	234	46.3	25	56.3	774	10.7	3.2	6.9
36. Isetan	Retail	Mar 91	215	(13.3)	16	(30.4)	264	7.4	6.1	8.6
37. QAF	Investment	Mar 91	215	0.0	4	(20.0)	151	1.9	2.6	6.8
38. Rothmans	Retail	Jun 91	195	23.4	53	35.9	247	27.2	21.5	27.6
39. Jurong Engineering	Investment	Dec 91	191	36.4	4	200.0	145	2.1	2.8	7.8
40. Bonvest	Investment	Dec 91	181	(3.7)	2	(87.5)	288	1.1	0.7	1.2
41. Resources Development Corp	Construction	Dec 91	174	3.0	17	466.7	113	9.8	15.0	30.4
42. Singmarine	Marine	Dec 91	172	22.0	30	42.9	353	17.4	8.5	17.9
43. Jacks International	Investment	Jan 91	171	(2.3)	(3)	(400.0)	69	(1.8)	(4.3)	(75.0)
44. Straits Trading	Trading	Dec 91	170	(37.0)	53	(5.4)	706	31.2	7.5	8.4
45. Wing Tai	Diversified	Jun 91	162	(8.0)	17	(55.3)	1,163	10.5	1.5	4.9
46. Hwa Hong	Investment	Dec 91	160	5.3	13	18.2	365	8.1	3.6	5.4
47. C. K. Tang	Retail	Mar 91	158	4.6	12	9.1	130	7.6	9.2	12.6
48. DBS Land	Property	Dec 91	155	(1.3)	43	(24.6)	2,993	27.7	1.4	5.8
49. Overseas Union Enterprise	Hotels	Dec 91	151	23.8	37	131.3	663	24.5	5.6	8.3
50. Chuan Hup Holdings	Shipping	Jun 91	151	(27.4)	8	(11.1)	321	5.3	2.5	3.6

* CMB Packaging, profit 9 months to December 31, 1990. Market capitalisation as of August 31: S\$265.25 billion.

Market capitalisation of top 50 companies : S\$39.07 billion. Number of listed companies : 323

Source : Morgan Grenfell Asia & Partners Securities, Singapore

Appendix 5B. Key Informants and their Appointments

Company/Informant	Position	Date
<i>Yeo Hiap Seng Limited</i>		
Mr. Allan Yeo	Chairman & Managing Director	8 July 1992
Mr. Charles Yeo	Senior Vice President, Corporate Affairs and Operations	9 July 1992
Mr. Timonthy Yeo	Corporate Business Planner	13 July 1992
<i>Wearnes Brothers Limited</i>		
Mr. John Heugle	Group General Manager, Production	4 August 1992
Mr. Chia Sin Cheng	Group Chief Financial Controller	6 August 1992
Mr. Hoon Bee Teck	Group General Manager, International Sales & Marketing	12 August 1992
Mr Dennis Chan	Group General Manager, Research and Development	11 August 1992
<i>Times Publishing Limited</i>		
Mr. Anthony Gomez	Quality Assurance Manager	20 June 1992
Mr. Ricky Ang	Senior Vice President, International Commercial Printing	10 July 1992
Mr. Chew Heng Chin	Senior Vice President, Human Resources Developemnt & Corporate Affairs	11 July 1992
Ms. Shirley Hew	Vice President, Publishing	15 July 1992

PART III

**A SERIES OF EMPIRICAL
EVIDENCE: CASE ANALYSES
AND PRESENTATIONS OF
FINDINGS**

CHAPTERS 6, 7 & 8

CHAPTER SIX

CASE COMPANY: YEO HIAP SENG LIMITED

6.1 Company Background

Yeo Hiap Seng Limited (YHS) was founded in 1900 by Mr Yeo Keng Lian in China's *Fujian* province. Initially, this small-scale family business produced soya sauce for the domestic market. Its association with Singapore began in 1935, when it established its first overseas production branch, *Yeo Hiap Seng Sauce Factory*, to serve the Chinese community on the island. These operations, however, ceased in 1942 when its production site was completely destroyed during the Japanese invasion of Singapore. After the Second World War, the parent company's attempts to revive its business activities in Singapore were disrupted by the Civil War (i.e from 1944-1949) in China.

In 1950, shortly after the Communist Party seized power in China, the Yeo family migrated to Singapore and moved all YHS's operations to the island. Two of the founder's five sons, who pioneered the operations in Singapore, Mr Yeo Thian Seng and Mr Yeo Tian Hwa, are still actively involved in the running of the business.

In other words, in 1950 it became a full-fledged Singapore-based enterprise. However, within five years of its operations in Singapore, the Company's product range has been extended to include the canning of Southeast Asian dishes. In 1955, to keep up with its image as not just a

soy sauce manufacturer, the Company was renamed *Yeo Hiap Seng Canning and Sauce Limited*.

In the late 1950s, YHS pioneered the bottling of traditionally home-made Chinese drinks such as soya bean milk and chrysanthemum tea. In 1967, it became the first company in the world to sell to pack soft drinks in *Tetra Brik* aseptic cartons. Its in-house innovation capabilities in packaging and product development made the Company a household name in Singapore even before it went public in 1968 under its present name *Yeo Hiap Seng Limited* (YHS). Today, the Yeo family still holds around 40 per cent share of the equity listed.

During the 1950s to mid-1980s, YHS's growth in Singapore was very much related to the expansion of its home and Southeast Asian markets. For example, in the mid-1960s, it started exporting to other Asian countries. Exports to distant countries only began in 1974, when it set up sales subsidiaries in the USA, Canada and the UK. Nevertheless, by the mid-1980s, the home market still accounted for about two thirds of its total production and more than half of its total exports were to Southeast Asian countries. It was only in the late 1980s that around half of its total sales turnover came from exports and significantly more than half of YHS's total profits were from its overseas markets.

Table 6.1 YHS's Annual Financial Performance, 1968-1991 (S\$Million)

Year	1991	1990	1989	1988	1987	1986	1980-85*	1969-79*	1968
Group Turnover	341.2	304.4	248.4	214.2	185.1	154.8	105.5	62.3	15.0
Pre-tax Profit	2.3	5.5	13.2	14.6	14.3	11.9	9.7	5.8	4.8
Net Profit (Loss)	(1.4)	1.9	7.6	9.4	9.1	7.7	5.2	2.9	2.9

* Refers to annual average figures only.

Sources: *Company Annual Reports* (various years) and *Singapore Registry of Companies*.

From the mid-1980s onwards, YHS's growth through the FDI route began to gain importance. It now owns food and beverage manufacturing and marketing facilities in Canada, the USA, China, Hong Kong, Indonesia, Malaysia and Mauritius. Currently, its products are sold in around 35 countries. In addition to the manufacture and marketing of its own brands of Oriental foods and non-alcoholic beverages (i.e. *Yeo's* and *Chun King*), it holds franchises for the manufacture and/or distribution of internationally renowned brands such as *Pepsi-Cola*, *7-up*, *Miranda*, *Schweppes*, *Sinalco*, *Evian*, *Apple Sidra*, *Kronenbourg*, *Corona* and *Budweiser*.

At the end of October 1991, YHS ranked 30th among the top 50 largest industrial enterprises listed in Singapore in terms of sales turnover (Chapter 5, Appendix 5A). From 1968 to 1991, YHS's total sales turnover grew by nearly 25 fold from S\$15mn to around S\$340 (see Table 6.1). Currently, YHS is also the third largest food and beverage

manufacturer in Singapore after *Fraser and Neave Limited* (F&N) and *Asia Pacific Beveries Limited*.

According to Mr Allan Yeo, Chairman and Managing Director of YHS, together with its arch-rival, F&N, the Company has around 85 to 90 per cent of the domestic market share for soft drinks. However, unlike F&N, YHS has undertaken FDI in distant industrial nations. Besides, growth for the parent Company and all its subsidiaries are based only on one business sector, namely, the manufacture and marketing of consumer food and beverage products.

Prior to August 1992 YHS was organised along functional lines but since then, its organisational structure has been revamped in order to ensure better coordination and integration of its international manufacturing and marketing network. Currently, it is organised under these five multiple Divisions:

- (a) Corporate Services Division;
- (b) Business Development and Planning Division;
- (c) Marketing and Sales Division;
- (d) Manufacturing Division; and
- (e) Finance Division.

The following section gives further details of the nature and extent YHS's cross-border direct investments and the motives behind them.

6.2 Nature and Extent of YHS's FDI and Other Overseas Activities

By the end of August 1992, nearly three quarters of the YHS's total employees of around 4000 world-wide are abroad (see **Table 6.2**). Overseas operations accounted for nearly two thirds of its total assets of S\$500mn currently employed in production. Being an Oriental producer, three quarters of its direct investments are, logically, located in Asian countries; which are also its most important markets. However, since 1989, it has been increasing its investment in manufacturing subsidiaries in industrial nations which are culturally and geographically remote (see **Table 6.3**).

Table 6.2

YHS's Employees by Main Geographical Distribution (as at end August 1992)

Country	No. of Employees
Hong Kong	50
Canada	450
USA	500
Singapore	832
China	1200

Sources: Personal interviews and *Singapore Kompas* (1992).

Table 6.3 Assets Employed by YHS by Geographical Distribution 1988-91 (S \$ Million)

Region/ Year	1991	1990	1989	1988
Asia	339.99	344.44	316.30	200.50
North America	118.08	131.93	141.62	47.36

Note: Prior to 1988, all YHS's manufacturing were located in Asia.

Sources: *Company Annual Report*, *Singapore Handbook of Companies* (various years).

Tables 6.4 and 6.5 show the geographical spread and the principal activities of YHS's overseas subsidiaries and associate companies respectively. As shown, the Company and its fourteen overseas subsidiaries in six countries are primarily involved in one business sector, namely, manufacture and marketing of consumer foods and beverages. It also licences out its technological and marketing know for *Yeo's* products in Indonesia and Mauritius (see **Table 6.6**).

6.2.1 Business Strategy and Geographical Locations

Unlike Wearnes Tech (see **Chapter 7**), there is less "duplication of efforts" and integration among YHS's international network of production units in technology and product development. For example, according to Mr Timothy Yeo, YHS's Corporate and Business Planner, all the Company's 37 full-time R&D personnel in food technologies are based in its parent plant in Singapore. These food technologists develop new products for YHS's subsidiaries worldwide. The products are then tested in each prospective market before they are finally manufactured in a particular YHS's overseas subsidiary.

**Table 6.4 Yeo Hiap Seng Ltd.'s Overseas Subsidiaries by Activities and Geographical Locations
(as at end August 1992)**

Location /Subsidiary Company	Year Est'd	Equity (%)	
A. USA			
1. YHS Trading (USA) Inc.	1974	100	Distribution of <i>YHS</i> brands of Oriental foods and beverages
2. YHS (USA) Inc.	1974	100	Owens and leases fixed assets to related corporations
3. Chun King Ltd. Partnership	1989	50	Manufacture and marketing of <i>Chun King</i> brands of Oriental foods and beverages
3. Chun King Corporation	1989	50	Investment holding
4. YHS Holdings (Delaware) Inc.	1989	100	Investment holding
5. YHS (Delaware) Inc.	1989	100	Investment holding
B. Canada			
1. YHS Trading (Canada) Ltd.	1974	100	Distribution of <i>YHS</i> brands of soft drinks and canned foods
2 YHS Ontario Ltd.	1985	100	Investment holding
3. YHS Investments (Canada) Ltd.	1985	100	Owens and leases fixed assets to related corporations
4. YHS Pacific Fruit Concentrates Ltd.	1987	100	Custom processing of berry products for other suppliers and production of soya beans products
5. Chun King (Canada) Inc.	1989	50	Manufacture and sales of <i>Chun King</i> brands of Oriental foods and condiments

continue

Table 6.4 (continued)

Location /Subsidiary Company	Year Est'd	Equity (%)	Principal Business Activities
C. Netherlands			
1. Chun King International B.V.	1989	50	Holder of trademark of <i>Chun King</i> foods and beverages
D. UK			
1. Yeo Hiap Seng International Ltd.	1974	100	Dormant
E. China			
1. Guangzhou Xinfra Beverages and Foods Ltd.	1990	51	Manufacture and marketing of <i>YHS</i> foods and beverages (non-alcoholic only)
2. Nan Guo Winko Beverage and Food Corporation	1990	51	Manufacture and marketing of <i>YHS</i> foods and beverages
F. Hong Kong			
1. Yeo Hiap Seng (Hong Kong) Ltd.	1974	100	Manufacture and distribution of <i>YHS</i> foods and beverages
2. The Good Drinks Company Ltd.	1981	70	Dormant
3. International Beverages Ltd.	1981	100	Dormant
4. Boa Shan Company Ltd.	1987	100	Dormant
5. Sure Achieve Ltd.	1988	100	Dormant

Sources: Personal interviews, *Company Annual Reports* (various years) and *Handbook of Singapore Companies* (1992)

**Table 6.5 Yeo Hiap Seng Ltd.'s Overseas Associate Companies by Activities and Geographical Locations
(as at end August 1992)**

Location /Associate Company	Year Est'd	Equity (%)	Principal Business Activities
<u>A. Malaysia</u>			
1. Yeo Hiap Seng (Malaysia) Bhd.	1959	40	Manufacture and marketing of <i>YHS</i> foods and beverages
2. Yeo Hiap Seng (Malaysia) Trading Sdn. Bhd.	1959	40	Distribution of <i>YHS</i> foods, and beverages and healthcare products
3. Yeo Hiap Seng (Perak) Sdn. Bhd.	1975	40	Manufacture and marketing of <i>YHS</i> foods and beverages
4. Yeo Hiap Seng (Sarawak) Sdn. Bhd.	1976	40	Manufacture and marketing of <i>YHS</i> foods and beverages
5. Bestcan Food Technological Industry Sdn. Bhd.	1986	39.6	Production of <i>YHS</i> instant noodles and <i>meehoon</i>
6. Leong Sin Nam Farms Bhd.	1987	40	Production and distribution of processed meat and livestock for production of <i>YHS</i> foods and beverages
7. Yeo Hiap Seng (Sabah) Sdn. Bhd.	1990	40	Manufacture and marketing of <i>YHS</i> foods and beverages
<u>B. Indonesia</u>			
1. P.T. Salim Grada	1986	25	Manufacture and marketing of <i>YHS</i> foods and beverages

Sources: Personal interviews, *Company Annual Reports* (various years) and *Handbook of Singapore Companies* (1992).

Table 6.6 Yeo Hiap Seng Ltd.'s Overseas Franchisees

Franchisee	Country	Principal Activities
1. P. T. Salim Graha Food and Beverage Industry	Indonesia	Manufacture and distribution of YHS products
2. Oriental Foods Ltd.	Mauritius	Manufacture and distribution of YHS products

Sources: Personal interviews, *Company Annual Reports* (various years) and *Handbook of Singapore Companies* (1992)

Table 6.7 Yeo Hiap Seng Ltd.'s Franchised Products

A. Manufacturer and Sole Distributor		B. Sole Distributor	
Singapore	Malaysia	Singapore	Hong Kong
<i>Pepsi-Cola</i>	<i>Pepsi-Cola</i>	<i>Budweiser</i>	<i>Budweiser</i>
<i>7-up</i>	<i>7-up</i>	<i>Evian</i>	<i>Apple-Sidra</i>
<i>Mirinda</i>	<i>Mirinda</i>	<i>Kronenbourg</i>	
<i>Schweppes</i>	<i>Schweppes</i>	<i>Ridsect</i>	
<i>Apple-Sidra</i>		<i>ABC Batteries</i>	
<i>Sinalco</i>		<i>Gains Dog Food</i>	

Sources: Personal interviews, *Company Annual Reports* (various years) and *Handbook of Singapore Companies* (1992)

There is also less duplication of efforts among YHS's marketing operations. For example, the products made in Canada and the USA carry their own brand name called *Chun King*. Products manufactured mainly in YHS's Asian subsidiaries for Asian markets under *Yeo's* brand name, are also exported to North America. Their channels of distribution and style of preparation are also different from the *Chun King* brands of products. The following sub-sections provide further details of the principal business activities and product lines in YHS's subsidiaries by geographical regions.

(i) South East Asia

In 1959, YHS embarked on its first FDI mission and established a sales subsidiary in Malaysia. Within a year later, it extended its sales operations to include the manufacture of *Yeo's* brands of sauces and non-alcoholic beverages. In addition to the production of Chinese foods and drinks, this subsidiary also produced a line of *Hala* foods aimed at the Muslim or ethnic Malay community, who made up the majority (i.e. 52%) of the population in Malaysia.

In 1974, as part of the Malaysia government's "Malaysianisation programme" of the *Yeo Hiap Seng (Malaysia) Group (YHS Group)*, this Malaysian subsidiary was listed in the Malaysia Stock Exchange under its present name *Yeo Hiap Seng (Malaysia) Bhd. (YHS-M)*. Under this programme, YHS-M acquired 60 per cent of the *YHS Group's* equity stake in Malaysia from its parent company *Yeo Hiap Seng (Singapore) Limited*. Consequently, all YHS's existing entities in Malaysia are considered to be its associate companies (see **Table 6.6**).

Currently, two more new production sites are being developed in Eastern Malaysia, Sabah, as the existing manufacturing facilities in Malaysia and Singapore have reached 100 per cent production capacity. Besides the manufacture and sales of *Yeo's* products, these associate companies in Malaysia also manufacture and distribute franchised products such as *Pepsi-Cola*, *7-up* and *Scheweppes* for the domestic market. They are also the sole distributors for drinks such as *Budweiser*, *Evian* and *Kronebourg* (see **Table 6.7**) in Malaysia.

As shown in **Table 6.6**, *Yeo's* products are produced and sold in Indonesia through an associate company, *P.T. Salim Graha* and licensing agreement with *P.T. Salim Graha Food and Beverage Industry*. Both these companies are Indonesia-based firms and manufacture a broad range of *Yeo's Hala* foods and non-alcoholic beverages. They are aimed mainly at the Muslims in Indonesia, who made up the majority of the domestic market.

In other words, after 1974, because of the equity restrictions on foreign ownership imposed on food companies aiming at the domestic market in most countries in Southeast Asia, YHS does not have any overseas subsidiary company in this region. Its business activities are carried out by associate companies in Malaysia and Indonesia, and sales agents in Brunei. Despite the investment restrictions, by the mid-1990s, YHS plans to expand its Southeast Asian production and marketing network into the Philippines. In 1990, as an initial step, it forged a marketing tie up with a Philippines-based firm, *Seven C's Corporation*. The latter manages a local fast food chain, *A & W*.

(ii) North America

In 1974, YHS established its first sales and distribution subsidiaries here. At the end of August 1992, its assets employed here totalled US \$120mn. It now has five subsidiaries in Canada and six in the USA (see **Table 6.5**). Three of these subsidiaries are production bases for the North American market. The marketing subsidiaries mainly support the exporting of *Yeo's* brands of products from Singapore. The target markets for these *Yeo's* products are the "Chinatowns" located in the major cities in North America. The product lines sold here are also similar to those sold to the Chinese communities in Southeast Asia.

In Canada, YHS has one marketing subsidiary, *YHS Trading (Canada) Ltd*, in British Columbia. The Company also has two production subsidiaries, namely, *YHS Pacific Fruit Concentrates Limited*, in Chilliwack and *Chun King (Canada) Incorporated*, in Ontario. The former was acquired for C\$3mn and became operational in 1988. The factory was initially used to process intermediate berry products customised to the needs of other wholesale producers in Canada. In 1989, a further investment of C\$10mn was made on its production facilities to diversify its product lines and to improve its canning technology. Currently, this plant also undertakes the manufacture of two-piece aluminium cans and the canning of soya bean and coffee drinks for retail sales. The factory has capacity to make 40 millions of cans of drinks a year.

The *Chun King* network in Canada was bought from *NRJ Nabisco* for US\$ 52mn in 1989 together with *Chun King* production facilities in the US as a "package deal". The Canadian assets consist of 3.3 acre land and

2-acre factory in Ontario and sauce production equipment in St. Theresa. The production site in Ontario is now engaged in the manufacture and marketing of *Chun King* brands of Oriental foods and sauces. These products are mainly aimed at non-Chinese consumers in Canada. The factory also manufactures YHS's products such as *Yeo's Beef* and *Chicken Curries* for distribution in the Chinatowns in Canada. These products were previously imported from Singapore.

In the USA, YHS has one production subsidiary, *Chun King Partnership Limited*, in Maryland and one marketing subsidiary, *YHS Trading (USA) Limited*, in California. The Chun King production assets in Maryland include 53.3 acre of land and 3.8 acre of factory. Like its Canadian counterpart, the US factory manufactures *Chun King* brands of Oriental products such as *Chow Mien*, *Chop-suey* and *Spring Rolls* for the non-Chinese domestic market. These products "tailored" to suit Chun King's American customer's tastes are sold through mainstream supermarket chains in the US. Except for *Yeo's Chicken and Beef Curries*, all *Yeo's* brands of products, on the other hand, are imported from YHS's Asian subsidiaries. These *Yeo's* products are targeted mainly at ethnic Chinese communities and are sold through a network of retail outlets owned by American Chinese.

(iii) North Asia

In China, YHS has two production subsidiaries, *Guangzhou Xinfa Beverage and Food Limited* and *Nan Guo Winko Beverage and Food Corporation*. Both these joint-venture agreements, concluded in 1990, are for fifteen years (see **Table 6.5**). They were made with two separate host country state-owned firms on a "50-50" basis for the former and

"51-49" for the latter. Both these Chinese subsidiaries "champion" the production and distribution of *Yeo's* products which are most popular with the domestic market (e.g. *Yeo's Grass-Jelly* and *Yeo's Soya Milk*).

In Hong Kong, YHS has five subsidiaries. Currently, only one of these, *Yeo Hiap Seng (Hong Kong) Limited (YHS-HK)*, is actively involved in the sales and distribution of *Yeo's* brands of products (**Table 6.5**). Initially, *YHS-HK* manufactured and distributed its own brand of products and other brands of products. However, since 1986, *YHS-HK's* profit margins had been adversely affected by the depreciation of the Hong Kong dollar as almost all of its raw materials for production had to be imported and its main market was the domestic market.

In December 1991, when the its licence for the production of *Pepsi-Cola* expired, YHS management decided not to continue with its other franchises because *Pepsi Cola International Incorporated* had then set up a new joint venture company to make and distribute *Pepsi-Cola* and *7-up* in Hong Kong. *YHS-HK* did not take part in the joint venture because it considered it to be uneconomical to make *Schweppes* alone as the resources used to manufacture and distribute this brand were also used for *Pepsi-Cola* and *7-up* . Consequently, at the end of 1991, YHS sold its wholly-owned Hong Kong factory (a 16-storey building), equipment and, YHS's technical and commercial known-how in food and beverage production to *Swire Bottlers Ltd.* for S\$21.6mn. Currently, *YHS-HK* only undertakes the distribution function for *Yeo's* products made in China and other products such as *Budweiser* and *Apple-Sidra*. (see **Table 6.7**)

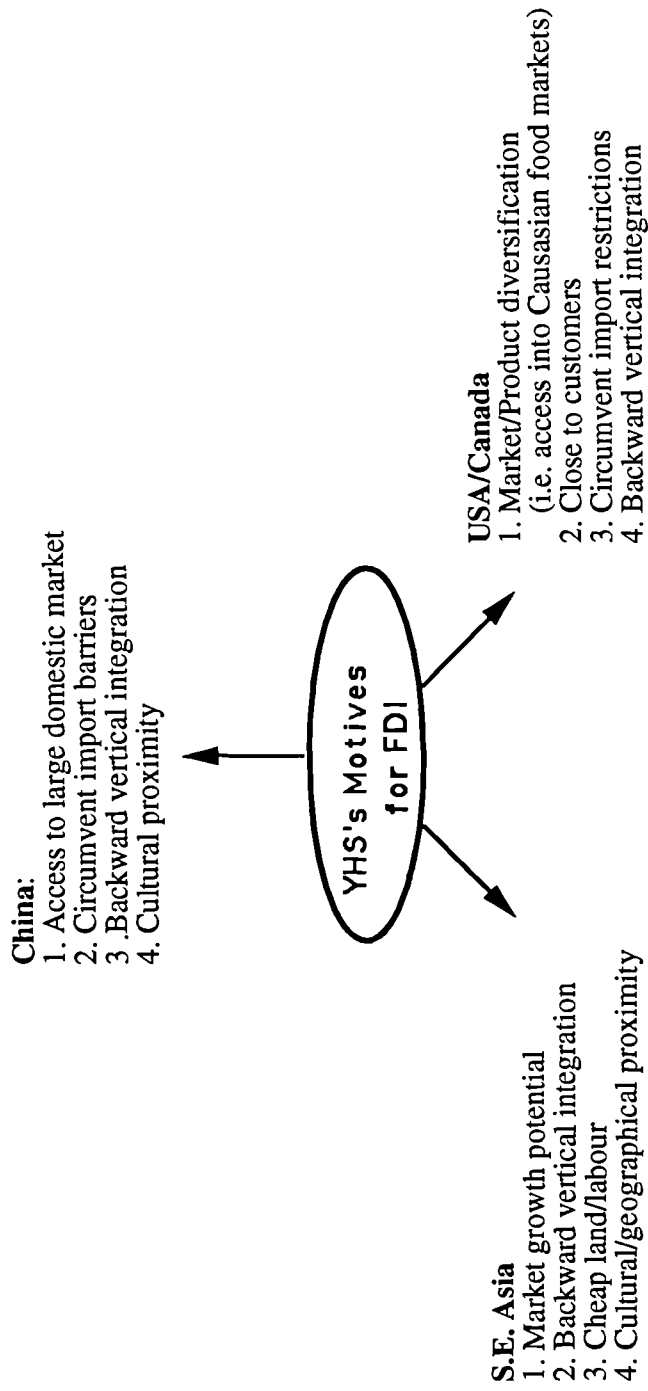
6.2.2 Entry Mode, Ownership Strategy and Trends

Generally, YHS's internationalisation process follows the "stages of development approach" (see **Chapter 2**). However, it also pursues multiple entry modes simultaneously. In a mature economy, in general, it prefers to enter by acquisition or joint ventures rather than by greenfield investment. Unlike Wearnes Tech (see **Chapter 7**), it does not take an incremental approach to acquiring a stake in a target company. It is also not YHS's policy to seek partnership with firms based in the host country. In 1989, *Chun King Partnership Limited*, for example was formed with a 50 per cent participation from Singapore's state-owned MNE, *Temasek Holdings*. In China, Chinese firms are the preferred partners simply because through this mode, YHS is guaranteed access to the domestic market share (e.g. at least a 30 per cent of its total output in China).

6.3 YHS's Motivations for FDI

According to Mr Timothy Yeo, YHS's international sales and distribution network has been set up not just to support its exporting efforts but also as outposts for it to acquire foreign marketing intelligence in the food and beverage industry. It is YHS's policy to establish an overseas production subsidiary wherever a market is large enough to justify a manufacturing presence and at the same time, offers the Company good potential to diversify its product lines or integrate backward in the host country. **Figure 6.1** summarises YHS's prime motives for FDI by main geographical locations. The following sections discuss YHS's main motives for FDI in: (i) Malaysia and China and (ii) Canada and the USA

Figure 6.1 YHS's Prime Motives for FDI by Main Locations



Source: Personal interviews

(i) Malaysia and China

As shown in **Table 6.5**, YHS began to embark on the FDI route in 1959. Between then and the early 1980s, the its overseas manufacturing investments in Malaysia were established mainly for cost reduction reasons. For example, YHS's Malaysian production facilities were set up because its plant in Singapore was then operating at 100 per cent capacity. Malaysia offered, and still does, cheaper land and labour. It could thus circumvent trade restrictions on imports of food products and at the same time cut costs through procurement of raw materials locally. Besides Malaysia was also a "natural" and potentially large market (e.g a population base of 18.5 mn) for *Yeo's* Oriental and *Hala* foods (i.e. specifically for Muslims) and non-alcoholic beverage products.

From the late 1980s to date, rising production costs in Singapore and trade restrictions on imports of food products by other Asian countries continue to influence YHS's FDI decisions in Malaysia and China. During this period, however, its long-term corporate objectives assumed greater importance. For example, in 1986, to counter-competition in its domestic market and its largest overseas market, Malaysia, it bought Malaysia-based firm, *Bestcan Technological Industry Sdn. Bhd.* which has been its main rival in the instant noodle market.

Overall, through its overseas subsidiaries, YHS aims to diversify its market geographically, integrate its operations globally and ultimately, in Mr Allan Yeo's words, "achieve a stable path of growth". This strategic focus is evident particularly in the its recent direct investments in production facilities North America.

(ii) Canada and the USA

In 1989, when YHS acquired *Chun King* operations in the USA and Canada, it had three corporate objectives. Firstly, by adopting *Chun King* product strategy and marketing network, YHS aimed to gain access into the non-Asian market in North America. *Chun King* products use ingredients prepared Chinese-style for the domestic Caucasian consumers. Unlike *Yeo's* products, which are sold in Chinatowns, *Chun King* brands are distributed through the main stream supermarkets in Canada and the US. In other words, *Chun King* operations would enable YHS to diversify into new markets and product lines.

Secondly, YHS believed its *Chun Kung* factories in North America could eventually also be used to manufacture and distribute *Yeo's* brands of products which had to be imported from YHS's Asian production subsidiaries. These *Yeo's* products were only marketed through *YHS Trading Incorporated* mainly to the ethnic Chinese consumers. Besides, this production strategy should also help YHS to circumvent any future trade restrictions (i.e. under NAFTA) on the imports of *Yeo's* products into these two countries.

Lastly, by merging both its newly acquired *Chun King* manufacturing and marketing network for *Chun King* products and the existing YHS trading operations for *Yeo's* products in North America, it aimed to increase its market share worldwide. As the first all-Asian owned food manufacturer for oriental foods distributed in the main stream supermarkets in a non-Asian environment, YHS believed the experience it gained there will be useful in helping the Company to become the market leader in the Oriental food industry globally. For example, *Chun King*

products could also be exported from North America to South America. In addition, the experience YHS may gain in developing and marketing Oriental foods products aimed at Caucasians and other non-Chinese consumers in North America could provide useful lessons for the Company if it decides to set up manufacturing facilities in Europe to serve the non-Asian markets.

In other words, unlike Wearnes Tech (see **Chapter 7**) and the majority of MNEs from the NIEs in general (The World Bank, 1989; Kwag, 1987), YHS does not invest in the developed countries (e.g. the USA and Canada) to acquire advanced or new technology. In fact, YHS sees FDI as a means to exploit its superior production technology worldwide. Its move into the non-Asian markets is also in line with its corporate strategy to become a global market leader in the Oriental food and beverage industry. Even its recent FDI in developing countries in Asia, where there is a naturally large market for *Yeo's* products, is more motivated by its market-orientated rather than cost reductions objectives.

For the last thirty years, YHS's sales growth in Southeast Asia has increased along with the expansion of the economies in this region. The Company's top management team is confident that the "boom period" all developing countries in the Far East are experiencing will continue for at least another decade because of the "spill-over" effects of economic reforms in China. It does not intend to diversify its core business activities from the consumer food and beverages sector into other industry. Therefore, despite the ownership restrictions by host government on foreign food companies which are not using these Asian countries as "export-platforms" (i.e production is aimed at the local

market) and its plans to increase its "presence" in distant industrial nations, YHS's investment commitments in Asian countries are still likely to increase in the 1990s. There are already plans to expand into the Philippines and India if the political situation there improves.

As part of its corporate strategy to globalise its production operations, YHS is already preparing itself to expand into the Caucasian food and beverages markets in Europe. In other words, like Wearnes and unlike most East Asian Pacific MNEs (Young et al, 1991; Kume, 1991; McDermott, 1990), YHS's recent decision to consider setting up marketing subsidiaries in the EC is not spurred by the formation of the Single European Market.

In May and June 1992, Mr Timothy Yeo revealed that he visited some countries in the EC to carry out some formal feasibility studies. The Company is planning to set up marketing subsidiaries to support the exports of *Chun King* products from YHS's North American subsidiaries to non-Asians. Currently, *Yeo's* products are only sold in the "Chinatowns" in 12 European countries through sales and distribution agents (see **Table 6.8**).

Table 6.8 Countries with YHS and Chun King Sales and Distribution Agents

Region/Country	Region/Country
<u>A. Europe</u>	<u>B. Asia</u>
1. Belgium	1. Brunei
2. Denmark	2. Japan
3. Finland	3. Papua New Guinea
4. France	4. Taiwan
5. Germany	
6. Holland	C. Others
7. Norway	1. Australia
8. Poland	2. Middle East
9. Spain	3. New Zealand
10. Sweden	4. Pacific Islands
11. Switzerland	
12. United Kingdom	

Sources: Company Annual Reports (various years)

At the moment, like Wearnes Tech (see **Chapter 7**) and TPL (see **Chapter 8**), YHS is still adopting a "wait-and-see approach" in setting up production subsidiaries in the EC. Surprisingly, when compared to the Single Market, YHS sees more market potential and threats in the proposed formation of the following economic regional blocs:

(a) North American Free Trade Agreement (NAFTA, involving the USA, Canada and Mexico));

- (b) ASEAN Free Trade Area (AFTA, involving Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand); and
- (c) the newly proposed Asia Pacific Economic Caucus (APEC, for all six countries in ASEAN and China, S.Korea and Japan).

Like Wearnes Tech too, YHS's investment decision and choice of location site are not influenced by the host country's financial investment incentives. However, for bigger FDI projects which the Company had no previous business experience (e.g serving the Caucasian markets), the home government's overseas investment policy are likely to affect YHS's decision. In 1989, for example, according to Mr Allan Yeo, the Singapore government's support in the form of tax rebates for income from overseas investment (see Chapter 4) and its 50 per cent participation "as a silent partner" through state-owned conglomerate, *Temasek Holdings*, fuelled YHS's top management entrepreneurial drive to diversify into the non-Asian markets in North America.

Indeed, part of YHS's overseas expansion can also be attributed to the Company's Chief Executive Officer's forward and outward looking personality. As Chairman of the Trade Development Board, Mr Allan Yeo fully supports the Singapore's government scheme to help indigenous companies to globalise. For example, Mr Yeo says he hopes that YHS's international expansion strategy "will encourage others to follow suit".

The following section analyses the impact of YHS's cross-border direct investment on the Group from the parent Company's perspective.

6.4 Impact of FDI on YHS's Performance

All YHS's executives interviewed concurred that the Company's "globalisation strategy" has indeed transformed many aspects of its operational functions and affected its overall performance both locally and internationally. **Figures 6.2** and **6.3** outline the positive and negative impact of FDI upon its performance. The following sub-sections analyse the details of the impact of FDI on YHS's financial, marketing, production and technology, procurement and human resource management, and organisational structure.

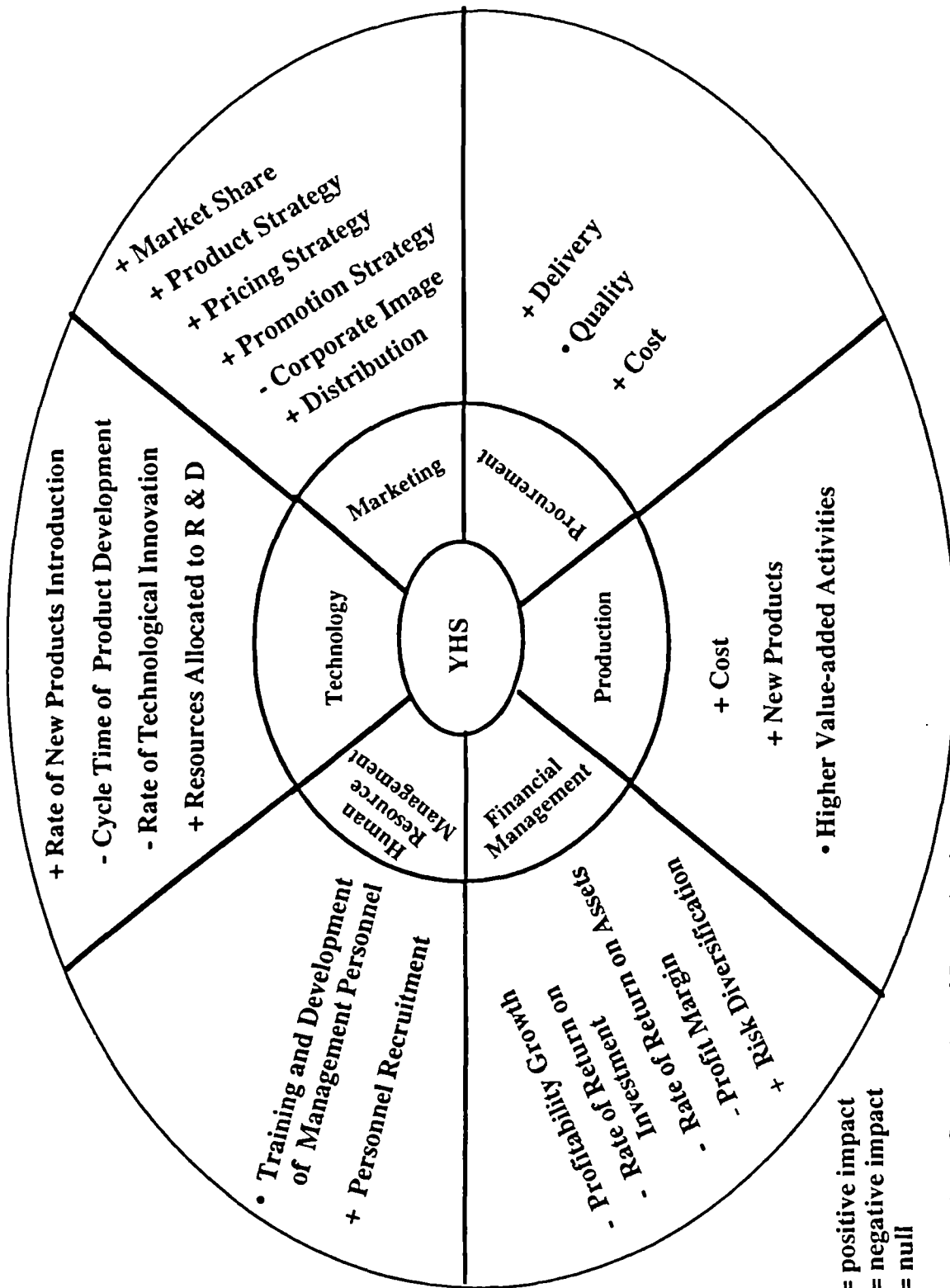
6.4.1 Financial Management

Throughout 1968 to 1991 YHS experienced continuous sales growth (**Table 6.1**). The YHS Group's turnover increased by almost 25 fold from around S\$15mn (US\$8.5mn) in 1968 to S\$340mn in 1991. From 1988 onwards, however, its profits began to shrink. By the end of December 1991, despite a 12 per cent rise in turnover of its 1990 figures, YHS turned in its worst ever results (since it went public in 1968) with a net loss of S\$1.4mn. The loss was incurred by YHS's operations in North America. For example this was how YHS's main units fared in 1991:

* *Chun King Limited Partnership* in the USA and *Chun King Incorporated* in Canada made a net loss of S\$ 3.23mn on a turnover of S\$62.8mn (US \$37.4mn.) and total loss due to exchange rate conversions accounted for S\$2.6 mn.;

• *YHS Pacific Fruit Concentrates Limited* in Canada made a pre-tax loss of S\$6.8mn. Of this amount, S\$1.2 mn was due to exchange losses and S\$1.4mn. to interest charges;

Figure 6.2 Impact of FDI upon YHS's Performance



Keys: + = positive impact
 - = negative impact
 • = null

Source: Personal interviews; Company Annual Report (various years); Business Times and the Straits Times Overseas Weekly Edition

Figure 6.3 Impact of FDI on YHS's Performance: Degree of Importance

	Qualitative.	Quantitative
Most Significant Benefits	Product / Market diversification Flow of marketing information Vertical backward integration - securing supply of raw materials Rate of introduction of new products	Market share in host country
Fairly Significant Benefits	Promotion strategy (e.g. branding and product differentiation) Recruitment of skilled personnel locally and internationally	Cost reduction (e.g. savings from economies of scope in R&D activities and pricing advantage in procurement of raw materials) Profitability (for 1969 - 1989) Resources allocated to advertising
Insignificant or No Impact	Management development and training	
Fairly Significant Negative Impact	Corporate image	Profitability (1989 -1991)

Sources: Personal interviews, *Company Annual Reports* ; *The Straits Times Overseas Weekly Edition*; *Business Times*; *Asian Business* (various years).

• *Yeo Hiap Seng (HK) Limited (YHS-HK)* in Hong Kong earned a net profits of S\$ 0.7mn. The depreciation of Hong Kong Dollar against major currencies had an adverse impact on the earnings as almost all intermediate food and beverages products had to be imported.

• *Yeo Hiap Seng Sdn. Bhd.* in Malaysia had a pre-tax profits of S\$10.4mn.(\$M17.2mn.). This figure is 27 per cent higher when compared to 1990; and

• *Yeo Hiap Seng (S'pore) Limited* in Singapore made a net profit of S\$8mn. Here, although turnover remained stagnant, the profits actually increased by 14 per cent over its 1990 figure. It gained from the strong Singapore dollar (see **Chapter 4**) because like *YHS-HK*, almost all its agricultural inputs for the local food and beverages production here had to be imported. Its also gained from increase in productivity through automation and rationalisation, and lower corporate taxes, interest and public utilities charges.

Clearly, the total loss incurred by YHS would have been much higher than S\$1.4mn if not for the contribution made by the Company's highly profitable domestic operations. Another reason was that the Company made an extraordinary gain of around S\$8.5mn. (HK\$52mn.) from the sale of its manufacturing assets in *YHS-HK*.

In December 1991, YHS decided to sell *YHS-HK's* plant, commercial and production know-how to *Swire Brothers Limited* for S\$ 21.6mn. because the parent company saw little prospects in its production subsidiary in

Hong Kong. The Company now serves the colony by exporting *Yeo's* products from its manufacturing subsidiaries in China.

Despite the poor financial returns of its direct investment in the US, Canada and to a lesser extent Hong Kong, all YHS's senior executives insisted that one must look beyond the YHS's profit figures when evaluating the Company's overall performance and its overseas subsidiaries' contributions. YHS usually sets a time-frame of around four to five years for a new overseas subsidiary to make any positive impact on the Group's overall profitability. As Mr Timothy Yeo said, "there is a price to pay if the Company wants to build up its business in new areas". In other words, like most Japanese MNEs (Wong et al, 1989; Doyle et al 1986), YHS is prepared to trade-off short-term gains in profits to achieve its strategic corporate objectives (i.e. to increase market share, and lead in food and beverages technologies and ultimately, integrate its production network globally).

6.4.2 Marketing Management

The following considers the impact of YHS's cross-border direct investment on the Company's marketing operational performance in terms of its effects on YHS's (i) market share; (ii) product strategy (iii) distribution network and (iv) promotion strategy (v) corporate image.

(i) Market Share

According to Mr Charles Yeo, YHS's direct investment in North America has given YHS "a strategic foothold in the largest, fastest-growing and most lucrative food and beverage market in the world". YHS considers market share as a very important indicator of its future long term profit

performance. For example, in 1991, despite losing S\$3.23mn, *Chun King Limited Partnership* increased its market share in the US by 10 per cent and its production volume by two fold when compared to 1989. This growth rate is twice the average rate of the US food industry. In mid-1992, *Chun King's* market share was 12.8 per cent in the US. YHS feels this would not have been achieved if had it served the market through other modes.

Indeed, in June 1992, YHS's North American subsidiaries made a total profits of S\$0.53mn. With the benefit of hindsight, Mr Timothy Yeo argued that this suggested that its 3 years of "paying the price" (i.e. sacrificing short term profits) to gain market share was indicative of YHS's commitment to gain a strategic hold in any market which the top management team considers to have long term growth potential.

(ii) Product Strategy

Having a direct manufacturing and marketing base in its target market has helped YHS to respond more quickly to market trends. For example, in early 1992, it jumped on the bandwagon of producing iced coffee and lemon tea in its subsidiaries in North America when it noticed a few American beverage giants manufacturing these products.

In early 1992, its *Chun King* factories also started to mass produce soya beans milk in North America when it noticed a growing awareness of the nutritive value of soya beans and that soya bean products were gaining acceptance among the Caucasians. Arguably, gaining access into this new mass market has prompted YHS to broaden its product range. For example, YHS now has a chocolate-flavoured soya drink to suit Western

taste because, unlike the Asians, YHS found that Caucasians do not like plain soya milk drinks. They complained that these drinks have a bland taste. Other examples new beverages which the parent company has developed and successfully introduced to its non-Asian markets include *iced mocha cappuccino*, mango juices and mixed berry juices. By mid 1993, all these new products will be manufactured in YHS's subsidiary in Canada, *YHS Pacific Fruit Concentrates Limited*. With the acquisition of *Chun King* operations in North America, YHS's lines of beverages in Asia has also widened significantly. For example, *Yeo's* products now include *Chun King* products such as *Chop Suey* and *Chow Mein*.

YHS's overseas exposure has also helped the it to identify new business opportunities in the health food market. It is now formulating a product strategy to target specifically at health conscious consumers worldwide. For example, as an initial effort, it has reduced the sugar contents in some of its traditional Chinese drinks (e.g chrysanthemum and herbal teas) and developing "*MSG-free*" noodles for both its Asian and non-Asian markets. It is also considering of going into the food catering business.

(iii) Distribution Network

In October 1992, YHS embarked on exporting its *Chun King* products into Peru. The Company is now poised to expand its marketing operations into Mexico and other parts of South America with its new "Western-flavoured" products manufactured its North American production bases (*The Straits Times*, 12 December 1992).

In other words, YHS's FDI in North America has prompted it to consider investing in Mexico to take advantage of NAFTA. If these developments

materialise, it will enjoy further economies of scale in innovating new Oriental foods products which are "tailored" for Western markets.

(iv) Promotion Strategy

Currently, YHS's own brand name, *Yeo's*, is only a household name in Singapore and the "Chinatowns" in 35 countries. In 1989, along with its takeover of *Chun King* manufacturing operations, YHS acquired another brand name, *Chun King*. In the US, *Chun King* is the number two market leader in Oriental foods and beverages after *La Choy*. The latter is still owned by the previous owner of *Chun King*, *RJR Nabisco Incorporated*. Selling under two brand names has allowed YHS to gain competitive advantage in the form of product differentiation.

The acquisition of *Chun King Foods* has also enabled YHS to gain access into a business infrastructure which consists of around 50 food brokers in North America. This gives it opportunity to enter into its "mainstream market" here through supermarkets.

According to Mr Allan Yeo, the expansion of the Company's manufacturing network especially into distant lands over the last five years has led YHS to modify its promotion strategy. Instead of relying heavily on its trading subsidiaries to advertise and sell its products overseas, YHS is now using international food fairs to make itself known worldwide (e.g. those organised in Germany).

While market diversity allows YHS more opportunities for product differentiation to gain pricing advantage, it also creates some advertising problems. According to Mr Timothy Yeo, it has difficulty in

coordinating and integrating its promotion efforts for two different brands (i.e. *Chun King* and *Yeo's*) because they are aimed at different ethnic groups. For example, there is little possibility of reaping economies of scale in promotion. It is also very difficult to standardise advertising messages for both brands. In Mr Yeo's words, "we want the commercials for these two products to speak the same language and look the same (meaning of good quality) but how could we at the same time be subtle that they are meant for different ethnic groups of consumers?". It is unlike selling *Coca-Cola* or *Pepsi-Cola*. The commercials for these two soft drinks seem to have no cultural barriers. At the moment, YHS is still actively searching for good advertising agencies to help the company to develop effective commercials in North America and Singapore.

(v) Corporate Image

In 1989, when YHS made its forays into North America, it was singled out by the Singapore government as a model for homegrown MNE wanting to globalise their operations (and to support its industrial policy or outward investment drive). However, when it announced its losses, the Company's corporate image seemed to have tarnished.

Table 6.1 shows that YHS had superior financial performance between 1968 to 1987. During that period, export earnings accounted for half of its profits. For these achievements, Mr Allan Yeo was awarded the Business Man of the Year in 1987. He was also appointed the Chairman of Singapore Trade and Development Board and has been since then. However, when YHS announced losses in its overseas venture in North America, its corporate image suffered. This is suggested in the reports by the local press (*Business Times*, December 21-22 1991, *The Straits*

Times, March 31 1992 and June 5 1992). For example, it was reported that there were rumours that *Temasek Holdings* was going to pull out of the joint venture agreement in *Chun King Limited Partnership* and that YHS might lose its trustee stock status if the criterion used is a company's profitability when the *Trustee (Amendment Bill) 1992* becomes law in Singapore.

Despite the evidence, it is very difficult to conclusively argue, as in the case of Wearnes, on how FDI has an impact on YHS's corporate image. This is because before its poor financial performance in 1988, YHS also had high FDI commitments in other Asian countries and marketing subsidiaries in North America and Europe to support its exporting efforts. As Mr Timothy argues, YHS should be favourably seen for having fulfilled its other corporate strategic objectives through FDI. However, so long as the press chooses to unduly focus on YHS's short term losses and ignore its other achievements, its corporate image will inevitably suffer.

6.4.2 Production and Technology Management

Unlike Wearnes Tech (see Chapter 8) and most NIE-based MNEs (World Bank, 1989; Kwag, 1987), YHS does not see its overseas subsidiaries in developed countries as the its agents for advanced food and beverages technologies. The following analyse the impact of YHS's FDI in terms of (i) rationalisation of production (ii) resources allocated R&D (iii) rate of product and process innovation and introduction and (iv) ability to get official funding.

(i) Rationalisation of Production

In 1989, when YHS installed a new 1000-can-per-minute canning facility in its parent plant to produce 3-piece steel cans for carbonated drinks, the canning line was said to be the fastest in Southeast Asia. These 3-piece cans in Singapore are now replaced with 2-piece aluminium cans made in Canada. These cans are also used in its Canadian subsidiary, *YHS Pacific Fruit Concentrates Limited*. This rationalisation in packaging has resulted in significant cost savings and has enabled YHS to enter into contract-packaging for other beverages corporations in Singapore and Malaysia.

(ii) Resources Allocated to R&D

According to Mr Timonthy Yeo, YHS would have known the availability of this new technology of using 2-piece aluminum instead of 3-piece steel cans even if it had not set up manufacturing operations in North America. It is constantly in touch with the developments in this industry through its contacts with its vendors and through international trade fairs. Besides, it is the Company's policy to allocate around 10 per cent of its annual sales turnover on R&D to enable it to keep abreast of new technology.

YHS sees its personnel policy of recruiting a local pool of highly skilled food technologists and process engineers as instrumental to achieving in house technological leadership in Singapore. It also sends junior executives for further formal training and development courses. In 1991, for example, despite suffering from losses, it opened a training centre called, *Fast Forward Centre*, for its staff in Singapore. The training programme was originally introduced by the Singapore National

Productivity Board to improve workers' skills. In mid-1992, the Company also introduced the use of *ESPON* Handheld Computer in its local sales operations. Through this *Handheld Computer System*, YHS sales team is able to improve data integrity and retrieval and ultimately, enhance its customer service through more expedient delivery.

Overall, YHS considers its local product and process technologies in the food and beverage industry to be comparable to those used by well established MNEs based in the US. For example, according to Mr Timonthy Yeo, it won the takeover bid on *Chun King Foods* despite the fact that it was not the highest bidder. The acquisition was approved by the US and the Canadian governments on the basis of their assessment of the innovative capabilities of its parent plant in Singapore!

(iii) Rate of Product and Process Innovation and Introduction

In Singapore, there is hardly any import restrictions. According to Mr Allan Yeo and Mr Timothy Yeo, to counter the competition of foreign food and beverage products in the local market, YHS has to constantly develop new products to stimulate domestic market demand. YHS's operations in Singapore has been its most profitable among all its subsidiaries worldwide. Local consumption accounts for around 55 per cent of its total domestic production. It is also expected to grow at around 6 to 7 per cent annually throughout the 1990s..

As YHS's international network of production and marketing expands and diversifies into non-Asian countries, it found that it is able to enjoy greater economies of scope and scale in product innovation. This is reflected in the negative correlation between the rate of its product

innovation and introduction. For example, over the last three years, when the its rate of product innovation decreased or remained stagnant, the rate of product introduction in the market place actually improved.

In other words, it now takes a shorter time for YHS to commercialise a new product. This is because it now has a more diversified market base. A product which has failed in one market may be saved from being eliminated by another market. For example, its new product, *Yeo's Grass Jelly* failed to meet sales expectation in Singapore and other parts of Southeast Asia. However, in Mr Timothy words, "it is selling like hot cakes in China now!" If YHS did not have a production subsidiary to serve the Chinese market, its sales would have been lower as China has restrictions on import of food products.

With a more diversified international production and marketing base, economies of scope in product innovation and introduction also comes in the form of having just to do small product adaptations on existing ones to suit the taste of another market. For example, YHS is able to broaden *Chun King* brands of product lines for beverages to suit Caucasian markets by just adding chocolate flavour to its YHS's *Yeo's Soya Milk*, currently an "evergreen product" among the Chinese consumers.

(iv) Ability to Get Official Funding

"Going multinational" has helped YHS to improve its production and technology management indirectly because of the Singapore's outward investment policy. For example, with its scale of operations, it now qualifies for various financial assistance packages (amount was not disclosed for confidential reasons) handled by the International (Outward)

Direct Investment unit of Singapore Economic Development Board (e.g. *Skill Development Funds, R&D Assistance Funds, Feasibility Studies Grant*). It is also able to participate in the *Fast Forward Programme* introduced by the Singapore National Productivity Board.

6.4.4 Human Resource Management

Habib and Victor (1991) suggest that MNEs choose their organisational structure consistent with the theoretical fit prescription for the kind of strategy they are pursuing. YHS revamped its organisational structure when its strategy switched in the late 1980s (e.g. to become a global market leader) and it suffered significant financial setbacks (*The Straits Times*, August 4 1992). For example, as from August 1 1992, it is organised under multiple Divisions instead of by functions along product lines. With the exception of the Finance Division, each Division is now headed by senior executives who have been with the Company for at least ten years.

Arguably, although the Yeo family still owns about 40 per cent of YHS's equity, it is not run like an ordinary Asian family business where nepotism prevails. It has 37 full-time R&D food technologist and engineers engaged in new product and process development. Mr Allan Yeo is the third generation of the Yeo family to head the Company as Managing Director. However, except for the Corporate Services Division, all Divisions are now headed by executives who are not members of the Yeo's family. In other words, its multinational operations has also enabled it to attract highly skilled international managers.

Like Wearnes Tech and TPL, YHS does not use its overseas postings as a means to develop a pool of "international managers" in its home operations. It is YHS's policy to send only senior managers with substantial multinational operational experience to its overseas subsidiaries or to inspect its overseas plants regularly. It is also its policy to employ host country managers whenever it cannot find better qualified Singaporean executives. Generally, like all Singaporean MNEs (*The Straits Times*, February 6 1991, *The Economist*, October 25-31 1992; *The Singapore Bulletin*, November 1992), it also faces great difficulties in persuading its senior executives to work overseas. One of the most common cited reasons among its executives is that their children's education. Singapore has a bi-lingual policy which makes the learning of mother tongue plus a foreign language compulsory. These executives are afraid that when they return after a three to five year stint overseas, their children will not be able to cope with the demands of the local mainstream educational system. Another primary reason is that Singaporeans are not willing to give up the "comforts of home" such as Singapore's clean (i.e pollution and almost "crime free") environment and the availability of a wide variety of eating houses.

6.4.5 Procurement Management

YHS aims to integrate vertically its production backward to secure raw materials for its food and beverages production. However, Singapore does not have the land to make commercial farming viable. Besides some countries have restrictions on import of foreign agricultural produce. For example, by manufacturing *Yeo's Chicken and Beef Curries* in its Chun King factory in Canada and the USA, YHS is able to circumvent the import restrictions of meat products into North America by buying

livestocks form the local suppliers. Similarly, its manufacturing subsidiaries in China has enabled it to avoid trade barriers on food products into the Chinese market.

YHS also enjoys cost savings (through bulk buying) and rationalisation of production by using the new 2-piece aluminium cans made in Canada instead of 3-piece steel cans for soft drinks in both its Singapore and Canadian plants.

6.5 Factors Influencing YHS's Performance

In line with the research objectives, the following sub-sections focus largely how YHS's performance is related to these major management related issues:

- (i) the preparation made by the Company prior to undertaking FDI; and
- (ii) the Company's international business experience.

6.5.1 YHS's Preparation for FDI and Feasibility Studies

Unlike Wearnes Tech (which has a Financial Services and Fund Management Division), YHS does not compile a formal data base which keeps track of investment opportunities overseas. However, according to Mr Allan Yeo, one can say that YHS's "international expansion is an ongoing exercise". The company is constantly in touch with merchant bankers for business opportunities.

In 1988, when YHS bought *Chun King Foods* from *RJR Nabisco*, the deal was arranged with the help of buyout specialist law firm *Kohlberg Kravis Roberts*. As money involved was quite large (US\$52mn.), YHS approached Singapore state-owned MNE, *Temasek Holdings* (TH) as the

government had announced publicly that it was willing to help local firms to globalise their operations as a business partner. When TH agreed to become YHS's partner, three of the former's and the latter's senior executives were sent to inspect Chun King assets and negotiate the deal in the USA and Canada.

In Mr Timothy Yeo's opinion, perhaps the two and a half month time-scale set by *RJR Nabisco* was too short for both YHS and TH to conduct in-depth research to gather enough detailed knowledge of *Chun King's* operations. For example, after the takeover, the company had to spend another US\$4mn. to upgrade *Chun King's* production line.

YHS also did not have detailed knowledge of the characteristics of the North American "ethnic-markets". As stressed earlier, one of YHS's main motives for setting up production subsidiaries in North America in 1989 was that it wanted to integrate its established YHS trading activities in the "Chinatowns" in the USA and Canada into its newly acquired *Chun King* production and marketing operations. By merging the two operations, *Chun King* subsidiaries could make and sell both *Yeo's* and *Chun King* products to both its Asian and Caucasian markets. In practice, however, this concept is not operational. First, the *Chun King* brands of Chinese food is prepared in US-style for the Caucasian markets. They do not suit Asians' taste. In other words, YHS had not done enough market research to understand that these two "ethnic markets" have distinct taste differences.

Secondly, it did not find out that *RJR Nabisco*, the previous owner of *Chun King Foods*, had been cutting expenses on R&D (in product and

packaging) and advertising to boost *Chun King's* profits. Clearly *RJR Nabisco* wanted to make the takeover of its *Chun King Foods* operations seems attractive to prospective corporate investors. Therefore, by the time it bought over *Chun King* operations, it did not realise that the latter had already acquired a down-market image in North America.

Lastly, YHS did not have a thorough knowledge of the implications of the deal. For example, even after the acquisition, *Chun King* was still dependent on *RJR Nabisco* for sales orders. Raw materials and advice also had to be bought from the latter. During the transition period which lasted six months, it had to pay *RJR Nabisco* US \$600,000 just for seeking its advice!

6.5.2 International Business Experience

The preceding discussion showed that YHS was clearly not well prepared prior to committing itself to the *Chun King* investment. However, prior to undertaking manufacturing investment in the USA, it had extensive international business experience. For example, first, it has been in the food and beverage business for around 90 years. In addition, it had operated in a culturally and economically diversified markets prior to buying *Chun King Foods* YHS's products were sold in 35 countries.

Lastly, since 1974, it has marketing subsidiaries in North America. However, it did not foresee the consequences of not being thorough in undertaking its preparation and feasibility studies. As Mr Timothy Yeo said, "Much of it was due specifically to YHS's lack of experience in acquiring a Company of that size and not to the Company's international business experience in general".

Indeed, research findings on Wearnes Tech (see **Chapter 7**) have revealed that its strategy of taking an incremental approach in taking a stake in the equity of the target company has helped it to reduce the risks of acquisition. YHS is a large company in Singapore but it is very small by international standards. In Singapore, together with its main competitor F&N, it operates in oligopolistic market conditions. But when it entered large, mature and sophisticated markets like Canada and the USA, it was like, as the Chinese saying goes, "a lamb among a pack of wolves".

With the benefit of hindsight, Mr Timothy Yeo admitted that it could have done better had the preparation been more thorough and cautious during the negotiation stage with *RJR Nabisco*. YHS's top management is disappointed that for the past three years, the Chun King operations in North America had been draining the YHS Group's overall profits. Nevertheless, the management team does not consider this venture a failure.

According to all executives interviewed, the gains *Chun King* made in market share between 1989 to 1991 and the product diversification opportunities offered by its large domestic market are beginning to have positive impact on the its profits figure. For example, in the first half of 1992, it was reported that *Chun King* made a profits S\$0.53mn. This was a big achievement when compared to the loss of S\$3.23mn. it experienced in 1991. YHS is confident that the benefits it had gained in other aspects of its operational performance will soon be translated into superior financial performance for the Company.

All executives argued that the enhanced capabilities in YHS's manufacturing and marketing network should be seen as foundations for it to improve its output and profits in the long term. In fact, Mr Timothy Yeo added that most Japanese companies also had to go through "the painful process" (*Asian Business*, July 1990, August 1989) of establishing a strategic foothold in their key markets. YHS wants to emulate their success stories by sacrificing short-term gains in profits for long term gains in market share and manufacturing capabilities.

6.5.3 Other Factors Influencing Factors

Like Wearnes, YHS's earning has also been adversely affected by fluctuations in the international currency markets. Since 1980, it has written off S\$19mn. against its capital reserves due to exchange rate adjustments. In 1991 alone, it wrote off S\$5mn. on this item and its pre-tax losses on currency conversions totalled S\$2.4mn. These losses confirm the inadequacy of relying solely on quantitative/financial measures to evaluate a its performance.

While firm-specific factors (as already been analysed in the preceding sections) macro-economic factors have critical influence on a firm's performance and subsequent investment decisions, Mr Timothy Yeo feels strongly that environmental variables must also be considered. "That is the reality of business!", he insisted. He then gave examples of two local ventures which he believes are relevant to this study although they are not related to YHS's FDI experience. According to him, in early 1990, in an attempt to backward integrate, YHS invested a total sum of S\$1.25mn. on hi-tech mussels and prawn farming in Singapore's off-shore waters. The sites were located in the sea near Malaysia's Straits of Johore and

Malacca. However, in November 1991, these two subsidiaries, *YHS Mussels Farms Private Limited* and *Flowell Industries Private Limited* had to cease operations because of water pollution.

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In other words, for ecological reasons beyond its control, YHS's Singapore parent operations were adversely affected by oil explorations in the Malaysian seas. The oil discovery nearby was unforeseen. But prior to setting up these two aqua-farms, it had done thorough environmental studies on the output potential (e.g. YHS could harvest 1800 and 300 tons of mussels and prawns per year respectively).

6.6 Research Propositions and Findings

Table 6.9 illustrates the link between these research findings and propositions. The following analysis examine specifically the links between the research propositions and findings on YHS.

Proposition 1: Singaporean MNEs invest in industrialised countries to acquire advanced technology and marketing intelligence. - Not Supported

As suggested by some researchers (World Bank, 1989; Kwag, 1987; Aggrawal, 1990, 1985), most NIE-based MNEs see their overseas subsidiaries in developed countries as their agents for advanced product and process technologies. However, YHS considers its local product and process technologies in the food and beverage industry to be comparable to those used by well established MNEs based in industrialised nations.

Table 6.9 Links between Research Propositions and Findings: Empirical Evidence from YHS

Research Propositions	Conclusions
<p>1. Singaporean MNEs invest in industrialised countries to acquire advanced manufacturing technology and marketing intelligence.</p>	Not supported
<p>2. Singaporean MNEs use overseas postings as tools to develop a pool of Singaporean “international managers” in its parent operations.</p>	Not supported
<p>3. Singaporean MNEs which have been motivated by the “pull” factors such market size and availability of raw materials tend to perform better financially than those motivated by “push factors” such as high local production costs and small domestic market.</p>	Not supported
<p>4. The greater the experience a Singaporean MNE has in international operations, the better the impact of FDI on its performance.</p>	Not supported

continue

Table 6.9 (continued)

Research Propositions	Conclusions
<p>5. The mode of FDI entry has a significant impact on the Singaporean MNE's financial performance overseas.</p>	<p>Partially supported</p>
<p>6. There is a significant correlation between a Singaporean MNE's performance and the amount of preparation made by the firm before it has decided to engage in FDI.</p>	<p>Supported</p>
<p>7. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on the parent plant's operational functions such as its manufacturing technology, marketing and procurement management.</p>	<p>Strongly supported</p>
<p>8. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on the parent plant's overall profitability.</p>	<p>Partially supported</p>

Sources: Personal interviews, *Company Annual Reports, Handbook of Singapore Companies, Business Times* and, *The Straits Times*. (various years).

Indeed, as early as 1967, YHS showed innovative prowess in its line of business when it became the first company in the world to pack its soft drinks in *Tetra Brik Aseptic* cartons. It is constantly in touch with the developments in this industry through its contacts with its vendors and through international trade fairs. Besides, it is the Company's policy to allocate around 10 per cent of its annual sales turnover on R&D to enable it to keep abreast of new technology.

YHS sees its personnel policy of recruiting a local pool of highly skilled food technologists and process engineers as instrumental to achieving in-house technological leadership in Singapore. To upgrade its junior managers' skills, it sends them for further formal management training and development courses in well established local or foreign business schools.

However, YHS's production and technology management has also indirectly benefited from its multinational status because of Singapore's outward investment policy. For example, with its scale of operations, it now qualifies for various financial assistance packages (but the amount was not disclosed for confidential reasons) handled by the International (Outward) Direct Investment Unit of the Singapore Economic Development Board (e.g *Skill Development Funds, R&D Assistance Funds, Overseas Income Tax Incentives and Feasibility Studies Grant*).

Proposition 2: *Singaporean MNEs use overseas postings as tools to develop a pool of Singaporean "international managers" in their parent operations.* - Not Supported.

It is YHS's policy to send only senior managers with substantial multinational operational experience to its overseas subsidiaries or to inspect its overseas plants regularly. It is also its policy to employ host country managers whenever it cannot find better qualified Singaporean executives. To upgrade its junior managers' skills, it sponsors them to advanced management courses conducted by reputable business schools locally or overseas.

Generally, like all Singaporean MNEs (*The Straits Times*, February 6 1991, *The Economist*, October 25-31 1992; *The Singapore Bulletin*, November 1992), YHS also faces great difficulties in persuading its senior executives to work overseas. One of the most commonly cited reasons for the reluctance among its executives is the fear that their children's education will suffer. Singapore has a bi-lingual policy which makes the learning of mother tongue plus a foreign language compulsory. These executives are afraid that when they return after a three to five year stint overseas, their children may not be able to cope with the demands of the Singaporean mainstream educational system. Another primary reason is that Singaporeans are not willing to give up the "comforts of home" such as Singapore's clean (i.e. pollution and almost "crime free") environment and wide variety of eating houses. Indeed, Singapore is now such an attractive location that foreign MNEs often find it one of the most popular overseas location (see **Chapter 4**).

Proposition 3: Singaporean MNEs which have been motivated by the "pull factors" such as large market size and availability of raw materials tend to perform better financially than those motivated by "push factors"

such as high production costs and small domestic market. -Not Supported.

Contrary to suggestions by Buckley et al (1988), YHS experienced very poor financial returns for its market-oriented and resource-oriented types of direct investment in North America. For example, between 1989 to 1991, the losses incurred by its three production bases (i.e. *Chun King Limited Partnership* in the USA, *Chun King (USA) Incorporated* and *YHS Pacific Fruit Concentrates Limited* in Canada) totalled around S\$ 10mn. However, its Malaysian subsidiaries have always been profitable. although they were initially mainly set up for cost reduction reasons.

Proposition 4: *The more experienced the Singaporean MNE in international business in terms of the length of time and the diversity of overseas markets which it has been servicing prior to engaging in direct investment, the better the impact of FDI on its financial performance.* - Not Supported.

Prior to undertaking manufacturing investment in the USA and Canada, YHS had extensive international business experience. For example, first, it has been in the food and beverage business for around 90 years. Next, it had operated in a culturally and economically diversified markets prior to buying *Chun King Foods* (e.g. its products were sold in 35 countries). Moreover, it could exploit its of experience (i.e. around fifteen years) in managing overseas manufacturing facilities in Malaysia and Hong Kong. Lastly, since 1974, it has marketing subsidiaries in North America.

Proposition 5: *The mode of FDI entry has a significant impact on the financial performance of a Singaporean MNE.* - Partially Supported.

Despite its experience with *Chun King*, YHS attributes the poor performance of its North American manufacturing subsidiaries mainly to its lack of experience in acquiring *large* companies and the inadequate preparation and feasibility studies it had made (see Proposition 6) rather than the mode of entry by acquisition. For example, its past acquisitions such as *Bestcan Food Technological Industry Sdn. Bhd.* and *Leon Sin Nam Farms Bhd.* in Malaysia were profitable within the first year of their operations. In China, joint ventures with Chinese tend to be more successful because through this mode of entry, YHS is guaranteed at least 30 percent of its total output in China.

Proposition 6: *There is significant correlation between a Singaporean MNE's financial performance and the amount of preparation made before it has decided to engage in FDI.* - Supported

In 1989, when YHS established production bases in North America, one of its main motives was that it wanted to integrate its established YHS trading activities in the "Chinatowns" in the USA and Canada into its newly acquired *Chun King* production and marketing operations. By merging the two operations, YHS to make both *Yeo's* and *Chun King* products in North America and sell to both its Asian and Caucasian markets.

In practice, YHS found this concept is not operational. For example, the *Chun King* brands of Chinese food is prepared in US-style for the Caucasian markets. They do not suit Asians' taste. YHS had not done enough market research to understand that these two "ethnics markets" have distinct taste differences.

YHS also did not find out that *RJR Nabisco*, *Chun King's* previous owner, had been cutting expenses on R&D and advertising to boost *Chun King's* profits. Arguably, this was because *RJR Nabisco* wanted to make the takeover of its *Chun King Foods* operations seems attractive to prospective corporate investors. Thus, by the time YHS "inherited" *Chun King* operations, it did not realise that the latter had already acquired a down-market image in North America.

Moreover, YHS did examine the implications of the deal it made with *RJR Nabisco*. For example, even after the acquisition, *Chun King* was still dependent on *RJR Nabisco* for sales orders. Raw materials and advice also had to be bought from the latter. During the transition period which lasted six months, it had to pay *RJR Nabisco* US \$600,000 just for seeking its advice! Within a year after the takeover, it also had to spend another US\$4mn. to upgrade *Chun King's* production line.

All YHS's executives interviewed admitted that its *Chun King* operations in North America could have better financial returns had the preparation and feasibility studies been more thorough and had they been more cautious during the negotiation stage with *RJR Nabisco*.

Proposition 7: *FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on the parent company's manufacturing technology, production, marketing, human resource management and procurement.*- Supported

YHS's top management is disappointed for the three-year period of 1989 to 1992, its *Chun King* operations in North America had been draining the YHS Group's overall profits. Nevertheless, the management team does not consider this venture a failure. According to all executives interviewed, the gains *Chun King* made in market share between 1989 to 1991 and the product diversification opportunities offered by its large domestic market are beginning to have a positive impact upon the YHS's profits figure. For example, in the first half of 1992, it was reported that *Chun King* recorded a profit of S\$0.53mn. compared with a loss of s\$3.23mn. in 1991.

YHS's parent company is confident that the benefits it has gained in other aspects of its operational performance from its FDI will soon be translated into superior financial performance by 1995.

As its international network of production and marketing operations expands and diversifies into non-Asian countries, YHS finds that it is able to enjoy greater economies of scope and scale in product development. For example, despite the fact that the rate of product innovation decreased or remained stagnant over the last three years, the rate of product introduction in the market place actually improved.

Clearly, because YHS now has a more diversified market base, it takes a shorter time for it to commercialise a new product. Generally, a product that has failed in one market may be saved from being eliminated by another market. For example, its new product, *Yeo's Grass Jelly* failed to meet sales expectation in Singapore and other parts of Southeast Asia. However, this product is now selling very well in China. Had YHS not established a production subsidiary to serve the Chinese market, its sales would have been lower as China imposes trade restrictions on the import of food products.

With a more diversified international production and marketing base, economies of scope in product innovation and introduction also comes in the form of having just to do small product adaptations on existing ones to suit the taste of another market. For example, YHS is able to broaden *Chun King* brands of product lines for beverages to suit Caucasian markets by just adding chocolate flavour to its YHS's *Yeo's Soya Milk*, currently an "evergreen product" among the Chinese consumers.

With production facilities in the USA, Canada and China, YHS is now able to circumvent import barriers on food products imposed by these countries. It is also able to enhance its competitive advantage in procurement by integrating vertically backward in these countries. All executives argued that, overall, the enhanced capabilities in YHS's manufacturing and marketing network should be seen as foundations for it to improve its output and profits in the long term. In fact, Mr Timothy Yeo added that most Japanese companies also had to go through "the painful process" (*Asian Business*, July 1990, August 1989) of establishing a strategic foothold in their key markets. YHS wants to

emulate their success stories by sacrificing short-term gains in profits for long term gains in market share and manufacturing capabilities.

Proposition 8: FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on its parent company's overall profitability. -Partially Supported.

YHS began to embark in FDI in 1959. **Table 6.1** shows that from the late 1970s to 1980s, YHS's profits grew by around 10 per cent annually. However, between 1988 to 1990 because of poor financial performance of its North American manufacturing subsidiaries, its profitability suffered some setbacks. By 1991, it went into red with S\$1.4mn. losses.

In other words, except for the recently, FDI had a positive impact on YHS's financial performance. However, YHS's management team is confident that the gains it has made from its overseas investments such as increased market share in its host countries, vertical backward integration and rationalisation in production. It is now planning to exploit its North American operational experience to serve non-Asians markets in South America and Europe. It is also planning to increase its presence in other Asian countries (e.g.the Philippines)

6.7 Summary and Conclusions

Unlike most MNEs based in the developing countries cited in the literature, both YHS's home operations and FDI activities are quite capital intensive. YHS's direct investment in the industrial nations are made mainly for its market-oriented rather than "technology-seeking" motives.

Since the late 1980s, it has also been investing in developing Asian countries for their market sales potential rather than cost reductions opportunities. Indeed, it hopes to achieve its multiple corporate objectives by simultaneously pursuing several foreign market entry and development modes (e.g. it also licenses out. its manufacturing technology)

Through FDI, YHS specifically hopes to

- (i) diversify its product lines;
- (ii) gain strategic foothold in markets which are more difficult to serve through export or licensing agreements;
- (iii) achieve backward integration; and ultimately,
- (iv) become a market leader in the food and beverages globally.

YHS believes that as a global company, it is better positioned to pursue a stable path of growth.

The formation of the Single European Market *per se* has not spurred YHS to set up marketing and production units there. The main motive behind its recent plans to enter into the EC market is to exploit its experience in serving the Caucasian markets in North America. Its recent interest in Europe is also in line with its long term corporate strategy to become a market leader in food and beverage industry globally.

Despite the poor financial returns experienced by YHS from the late 1980s to date, YHS's top management team feels that the its overseas ventures in North America and other parts of the world were a success in technical and marketing terms. For example, in 1991, *Chun King's* market share in the USA increased by 10 per cent when compared to

1989. Moreover, in the first half of 1992, this subsidiary's market share was 12.8 per cent.

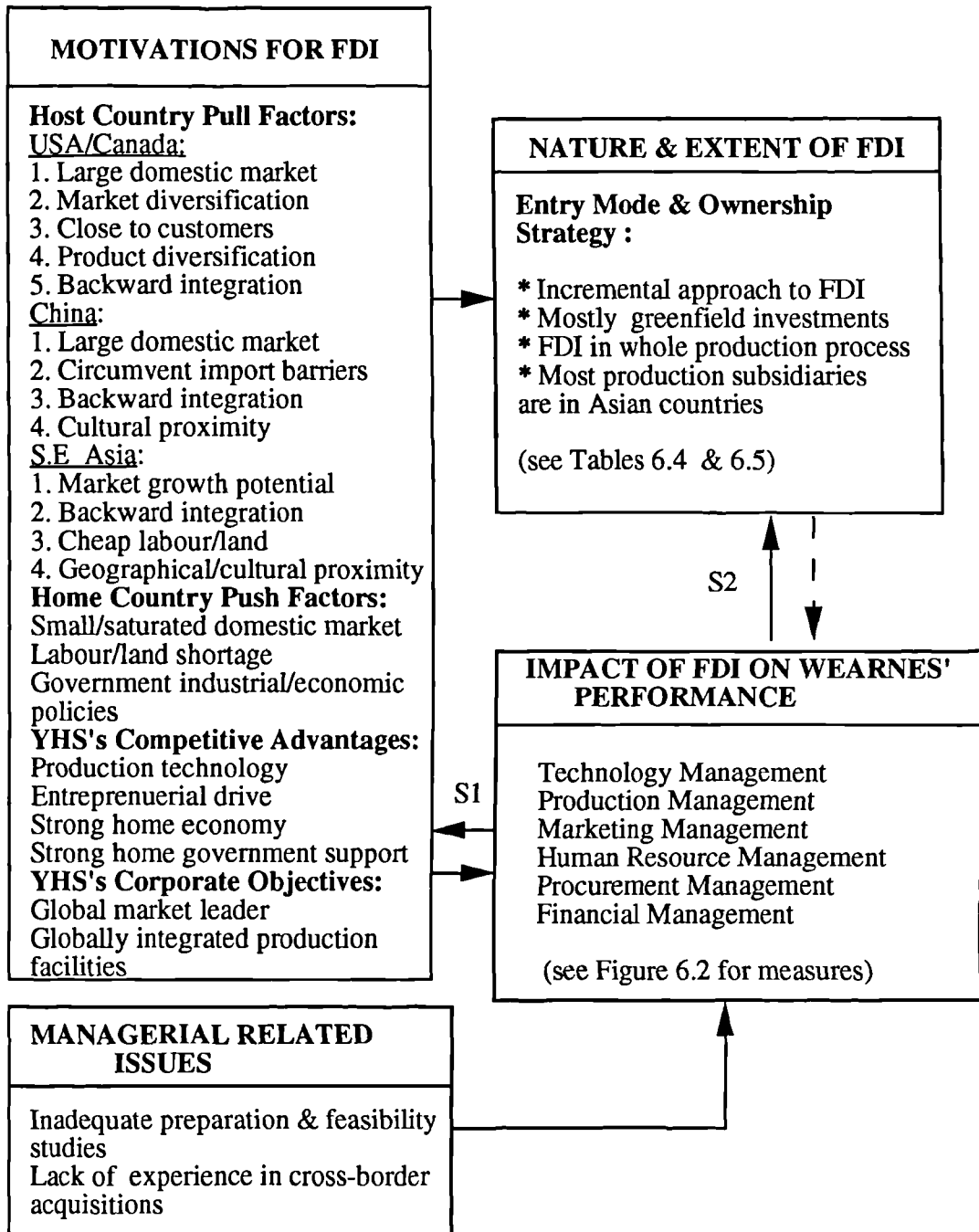
Analysis of the findings of this case study strongly suggests that there is a positive correlation between the amount of preparation and feasibility studies made prior to embarking on FDI and the subsequent financial performance of YHS's overseas venture. In other words, there appears to be a negative correlation between YHS's international business experience and its performance. However, this evidence requires some qualification. YHS attributes *Chun King's* poor financial performance in the first three years under its management in North America to the parent company's lack of international business experience in acquiring a foreign company almost half its size rather than in international production and marketing per se. For example, between 1988 to 1991, its overseas investment had a significant negative impact on its financial performance. From 1974 to 1987, however, the impact was positive.

Through its international operations, YHS is able to enjoy economies in scope and scale in product innovations. For example, for the past three years to date, although the rate of its product innovation has remained stagnant, the rate of YHS's product (i.e. successful) introduction has increased.

Overall, YHS is confident that the improvement in various aspect of its operational performance will have a positive impact on its long term profitability. It is now planning to exploit its North American operational experience to serve non-Asians markets in South America and Europe.

Figures 6.2 and 6.3 outline how YHS has or has not benefited from its overseas operations. Finally, **Figure 6.4** summaries the interactive and interdependent relationships of the variables affecting the outcomes of YHS's operations.

Figure 6.4 The Impact of FDI YHS's Performance: Major Firm-specific Influencing Factors



Note: A. Numbers for motivations for FDI denote ranking of importance
 B. S1 & S2 refer to subsequent FDI decisions and characteristics

Sources: Personal Interviews

CHAPTER SEVEN

CASE COMPANY: WEARNE BROTHERS LIMITED

7.1 Origins and Growth.

Wearne Brothers Limited (Wearnes Group) was founded in the early 1900s by Mr T.J. B. and Mr C.F.F. Wearnes as a family business engaged in the trading of automobiles in Singapore and Malaysia. It was named *CFF Wearne and Company* until 1912, when it became a public company under its present name. Since its incorporation to as recent as 1983, the distribution of luxury cars (e.g. Rolls Royce and Jaguar) and heavy industrial equipment (e.g. Hamilton jet engines and JCB excavators) in Southeast Asia account for as much as 90 per cent of its total sales turnover.

Faced with limited growth prospects of the automobiles business in the domestic market (e.g. the Singapore government restricts car ownership and provides an efficient public transport system), it embarked on a product diversification programme in 1984. It first went into information technology (i.e. both hardware and software development for PCs, computer peripherals and components), agro-technology, biotechnology and then later on, into specialised engineering, property, leisure and international venture fund management and advisory businesses. It also began to diversify its manufacturing and marketing network into North America, Northeast Asia and Western Europe.

Keeping abreast of its complex product and geographical diversity demands, its management structure moved in 1988 from a purely functional structure to a multi-divisional one along different product lines. Currently, the parent company is organised under the following five multiple Divisions:

- (i) Technology and Manufacturing Division;
- (ii) Automotive and Industrial Equipment Division;
- (iii) Financial Services and Investments Division;
- (iv) Leisure and Properties Division; and
- (v) Trading and Distribution Division.

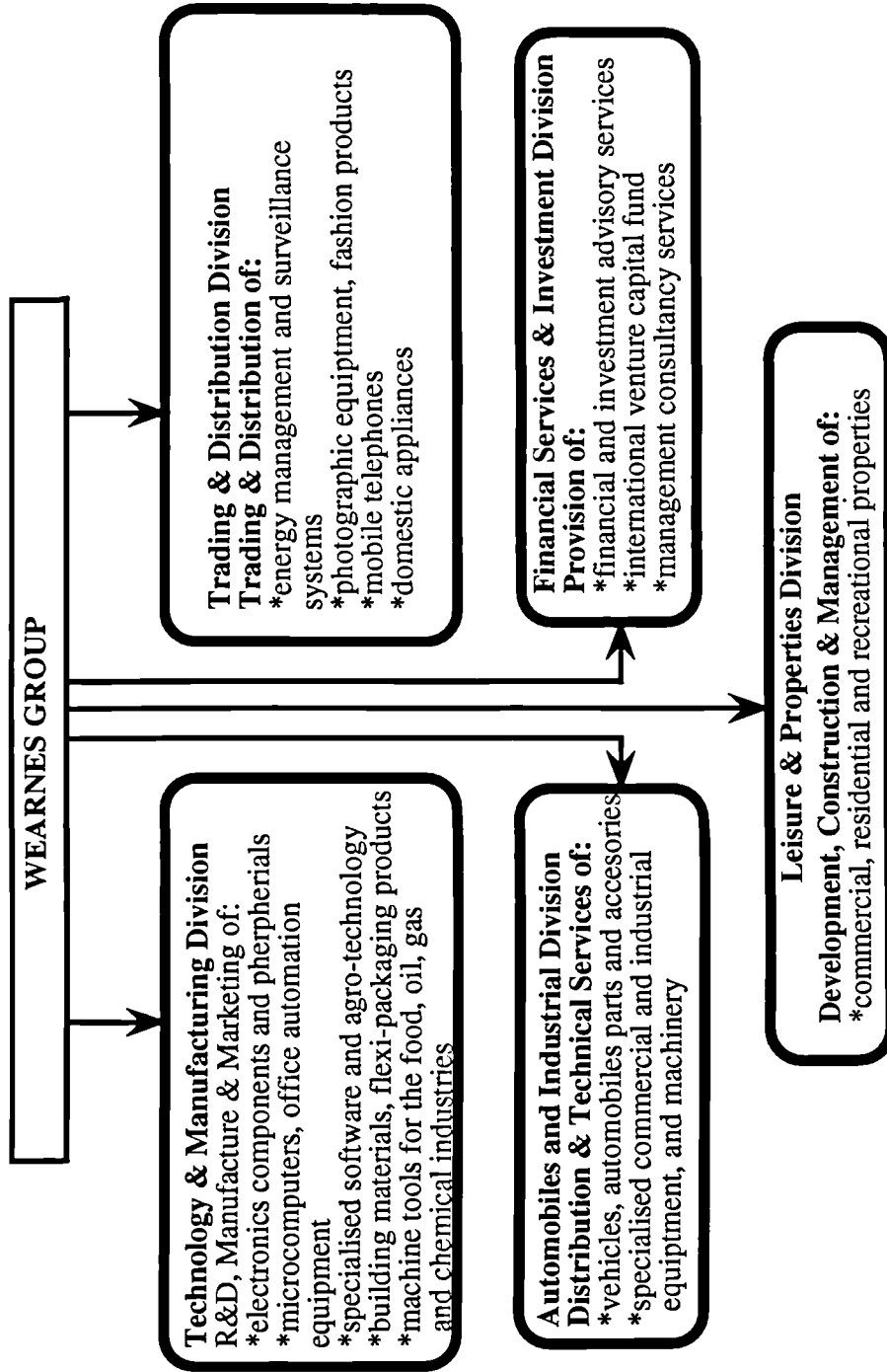
Figure 7.1 outlines the main activities in each of these five Divisions. **Table 7.1** shows that the Group's total turnover increased by nearly 12 fold from S\$74mn. (US \$17mn) in 1983 to S\$960mn. in 1992. The profits contributions by Divisions from 1988 to 1992 are shown in **Table 7.2**.

Table 7.1 Wearnes Group Turnover and Pre-tax Profits (Loss), 1983-1992 (in S\$mn)

Year	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983
Turnover	960	930	836	562	373	194	130	135	99	74
Pre-tax Profits/ (Loss)	(18)	20	52	43	26	17	14	6	11	9

Source: *Company Annual Reports* (various years)

Figure 7.1 Activities and Products of Wearnes Brothers Limited (Wearnes Group)



Source: Personal Interviews; *Singapore Company Handbook* (1992) and *Company Annual Report* (various years).

**Table 7.2 Wearnes Group's Profits Contributions by Division,
1988 -1992 (in Percentage)**

Division	1992	1991	1990	1989	1988
Technology & Manufacturing	28	29	47	35	46
Trading & Distribution	25	26	25	25	15
Automotive & Equipment	24	27	17	20	12
Leisure & Properties	9	7	3	7	11
Financial Services & Investment	14	11	8	13	19

Note: The Wearnes Group's diversification programme only began in 1984. In 1988, the Group's activities were restructured. Thus, figures for 1984 to 1987 are given separately because they are not comparable (see Table 7.3) .

Source: *Company Annual Reports* (various years).

**Table 7.3 Wearnes Group's Profits Contributions by Activities,
1983 -1987 (in Percentage)**

Activities/Products	1987	1986	1985	1984	1983
Electronics & Computers	44	30	15	10	-
Technical Products & Specialised Equipment	12	5	-	-	-
Automobiles & Heavy Equipment	21	45	62	80	90
Engineering	3	5	7	10	10
Agrotechnology	16	10	9	-	-
Others	4	5	7	-	-

Source: *Company Annual Reports* (various years), Registry of Singapore Companies.

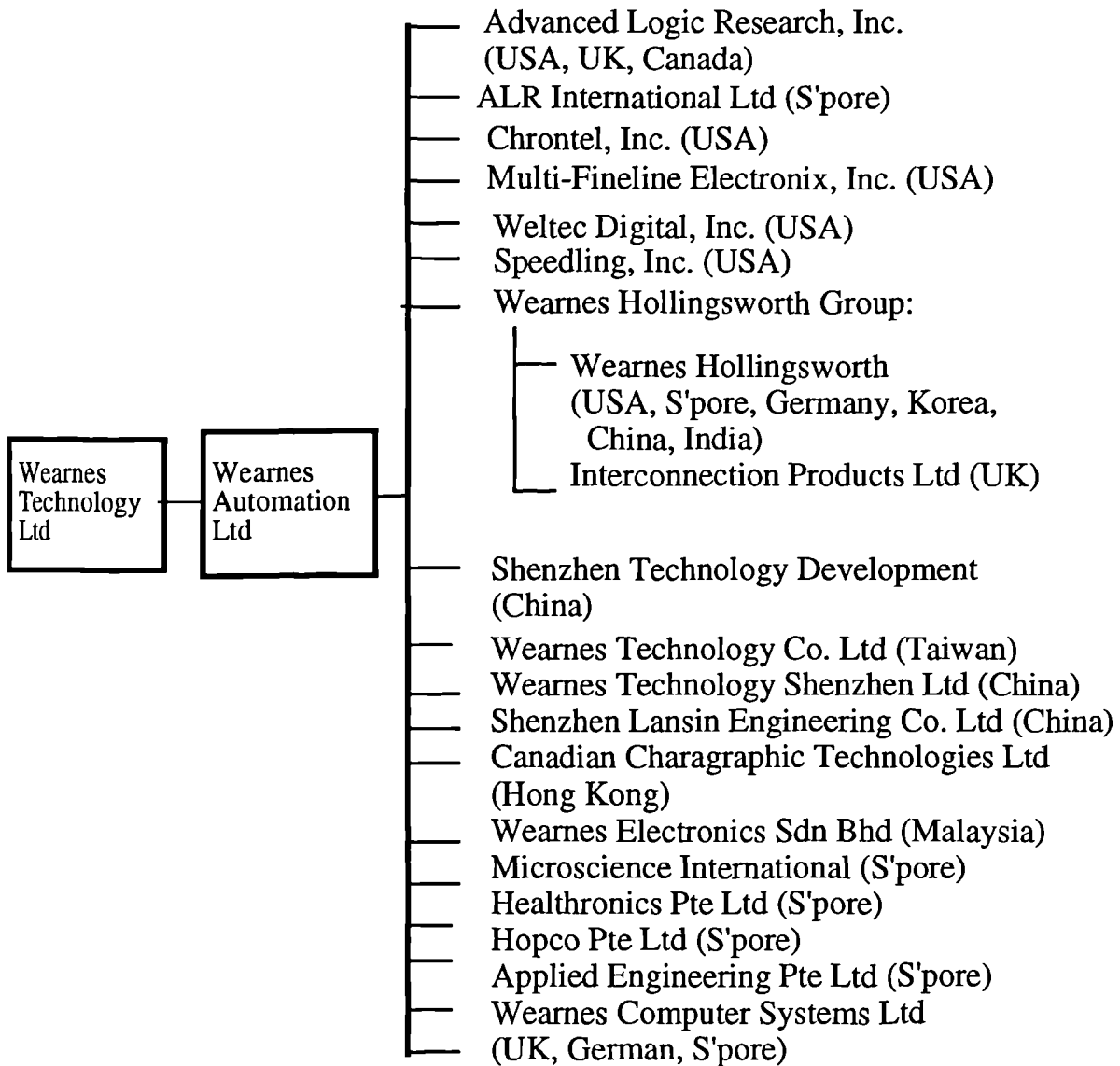
In line with the aims of this research, this case study focuses only on those FDI activities which are related to its Technology and Manufacturing Division. Although this Division was established as recently as 1983, it has been dominating Wearnes Group's overseas expansion since 1984 and is now its core business sector.

The key business activities of this Division are R&D, manufacturing and marketing of electrical and electronics components and microcomputers, building materials, healthcare kits, machine tools and commercial equipment for the food, oil and chemical industries. The umbrella company for this Division is Wearnes Technology Limited (see **Figure 7.2**). Throughout this case analysis, the company will be referred to as Wearnes Tech unless reference is made to those activities which are not related to businesses in this Division at all. The parent company will be referred to as Wearnes Group.

7.2 Nature and Extent of Wearnes' FDI Activities

Research on FDI of manufacturing operations of companies from developing countries, in general, suggests that a significant amount of these activities are located in lesser developed countries (e.g. World Bank, 1989; Wells, 1983; Khan, 1986; Aggarwal, 1985, 1989). In Wearnes Tech's case, however, most of its manufacturing investment are located in developed countries (e.g. North America). Most of its subsidiaries located outside advanced industrial nations are in China, Hong Kong, Taiwan and Malaysia. **Table 7.5** outlines the geographical spread of these overseas subsidiaries and their main activities.

Figure 7.2 Overseas & Local Subsidiaries under Wearnes' Technology & Manufacturing Division



Key: S'pore: Singapore

Source: Personal interviews; *Singapore Handbook of Companies* (1992); *Company Annual Reports* (various years)

The following sections give further details of the geographical and industrial distribution of these subsidiaries, the principal types of business activities performed, the size of investment, the entry modes, business and ownership strategies.

7.2.1 Geographical Distribution of Wearnes Tech's Employees, Assets and Subsidiaries

At the end of August 1992, two thirds of Wearnes Tech's total work-force of 5,000 employees world-wide were based overseas (see **Table 7.4**) and around 70 per cent of its total assets of S\$950 millions (US \$595mn.) were located abroad (see **Table 7.4A**). Today, it has a total of 86 manufacturing and marketing subsidiaries in North America, Western Europe, North and South East Asia.

Table 7.4 Number of Employees in Wearnes Tech's Major Subsidiaries by Countries (as at August 1992)

Country	Number of Employees
Germany	100
United Kingdom	100
Hong Kong	400
China	500
Indonesia	500
United States	600
Singapore	1200
Malaysia	2000

Source: Personal interviews

Table 7.4A Wearnes Tech's Assets Employed by Geographical Locations (as at end 1991, S\$mn)

Country/Regions Subsidiaries	1991	1990	1989	1988
Singapore	380.0	435.6	339.6	298.6
Other Asian Countries	134.9	127.4	158.5	90.5
North America	277.8	221.9	116.8	81.9
Europe & Others	29.6	25.4	--	--
Overseas Associated Companies	113.7	119.1	--	--

Note: Classification of assets by locations only began in 1988.

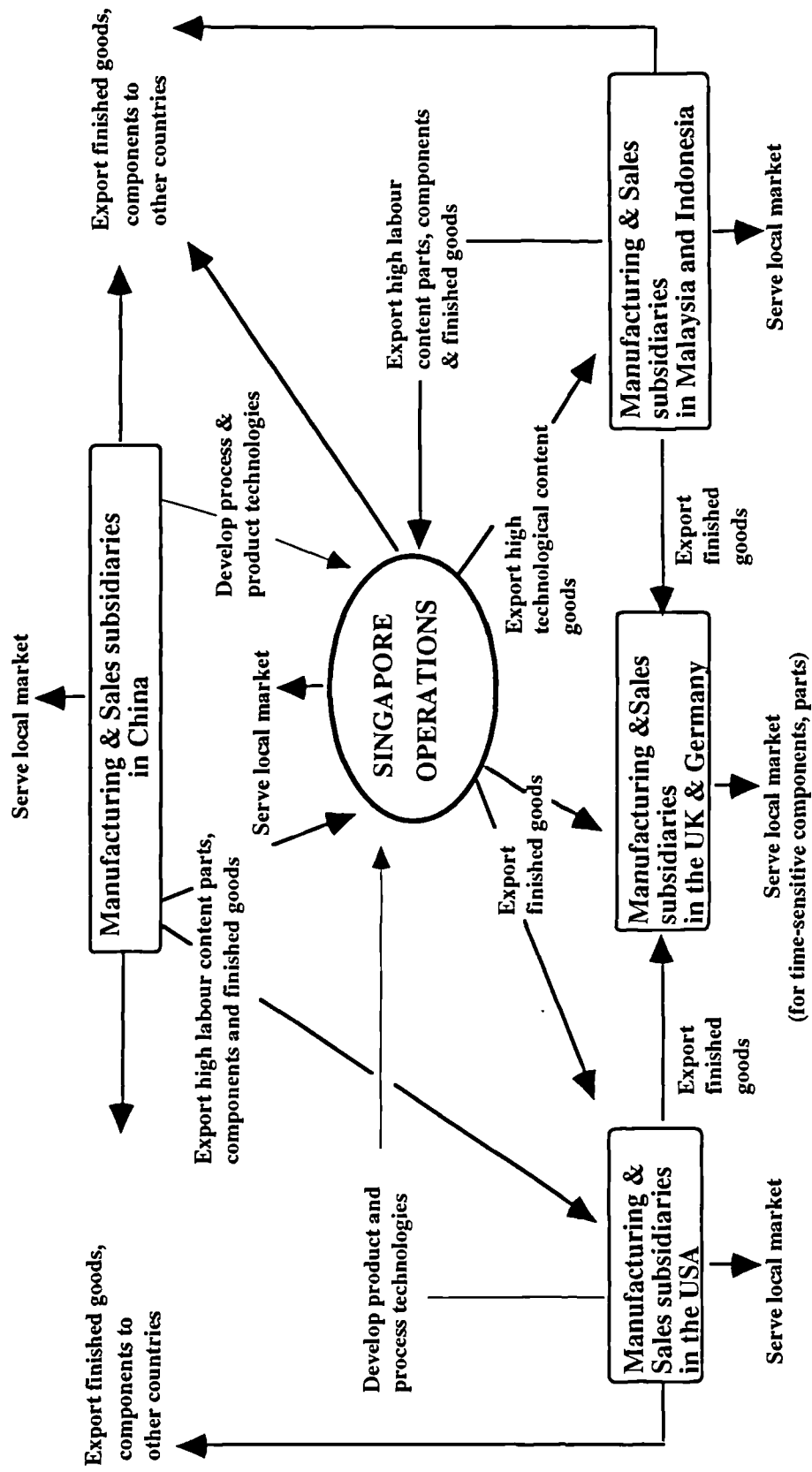
Source: *Company Annual Reports* (various years)

7.2.2 Business Strategy and Geographical Locations

Figure 7.3 summaries Wearnes Tech's international business strategy. According to Mr Heugle (Group General Manager, Production), because of the diversity of the product lines and the shortening of technological cycles in the electronic component business there is a lot of duplication of effort among Wearnes Tech's subsidiaries which are producing non-commodity type of components. For example, except for *Wearnes Hollingsworths Shenyang (China) Limited* all manufacturing subsidiaries have their own teams of R&D engineers and marketing personnel.

In other words, each subsidiary is basically a profit/loss or "niche manufacturing" centre. Under this international production strategy, each Wearnes Tech's factory focuses on a narrow product mix for a well defined niche market and takes advantage of the environmental attributes or business opportunities of its location. For instance, all companies organised under *Wearnes Hollingsworths Corporation* (see Figure 7.2)

Figure 7.3 Wearnes Tech's International Manufacturing and Marketing Strategies



Source: This researcher

concentrate only on the production and marketing of connectors and/or solderless terminals. In the UK, however, its subsidiary, *Interconnection Products Limited*, only focuses on manufacturing and marketing innovative connectors "tailored" to the requirements of original equipment manufacturers (OEMs) in Britain and Ireland [e.g. *IBM, Apple* and *BT (UK)*]. It had previously been unable to serve these OEMs effectively through exporting or other methods.

On the other hand, its factory in *Irvine, USA*, where automation skills are strongest, develops solderless terminals largely used in industrial equipment. Another US plant, in *Pompano*, near the *Silicon Valley* focuses on the production of simple machine tools to support other Wearnes Tech's production subsidiaries located in the USA. In Singapore, where there is a thriving local market for hard disk drives (e.g. Singapore produces half of the world's disk drives, *Asian Electronic Business*, 15 March 1992), Wearnes Tech's plants "champion" the production of components mainly related to the disk drives industry.

In other words, Wearnes Tech's production facilities in the USA and UK are mainly aimed at their home markets. They involve products which are highly specialised and time-sensitive and consequently, cannot be exported effectively from Singapore or its overseas subsidiaries. However, most of its products made in developing countries are for export purposes. For example, currently, about 70 per cent of the components manufactured in China are exported to other Wearnes Tech's subsidiaries or to original equipment manufacturers (OEM) in third countries. It also exports as much as 90 per cent of its products made in Singapore (where it already has a 30% market share).

Since 1990, Wearnes Tech's annual R&D expenses are 8 to 10 per cent of total sales turnover. Overall, it does not have an overseas subsidiary where its main activity is to carry out R&D functions or which it may consider as a "R&D excellence" centre.

According to Mr Heugle, the R&D activities conducted in its overseas production subsidiaries are very focused on the day to day problems specific to the niche markets they are serving. However, some manufacturing subsidiaries appear to be stronger than others in certain aspects of process and product innovations. For example, its European operations seem to be strongest in stamping development; its American factories in automation; its Singaporean ones in moulding and electroplating while its Chinese plants in computer software development. The following sections provide further details of Wearnes Tech's operations in (i) North America, (ii) Europe and (iii) Asia.

(i) North America

As shown in **Table 7.5**, Wearnes Tech's first cross-border investments in manufacturing and marketing operations were in the electronics and agrotechnology software development businesses (i.e. between 1984 to 1988). The USA was also its main FDI destination. At the end of August 1992, Wearnes Tech had eight overseas subsidiaries in the USA and five of these were production bases (see **Table 7.5**). The assets employed in these subsidiaries (i.e. excluding all associate companies) totalled S\$300mn compared with S\$165mn invested in all other countries outside Singapore and the USA. In Canada, it has a marketing subsidiary. It supports sales of *ALR* PCs made in its plants in the USA.

Table 7.5 Wearnes Tech's Overseas Subsidiaries (Technology and Manufacturing Division)
by Geographical Distribution and Activities (as at end August 1992)

Location & Subsidiary Company	Year Est'd	Equity (%)	Principal Business Activities
A. USA			
1. <i>Weltec Digital, Incorporated (Inc.)</i>	1984	100	Distribution and servicing of computer disk drives and modems@
2. <i>Wearnes Technology Corporation</i>	1984	97	Investment management services
3. <i>Wearnes (USA), Inc.</i>	1984	100	Investment holding
4. <i>Advanced Logic Research, Inc.</i>	1985	41*	Design, R&D, manufacture and distribution of computer products under the brand name ALR
5. <i>Speedling, Inc.</i>	1985	100	Automated production of seedlings and development of software for equipment used in agriculture, horticulture and forestry
6. <i>Multi-finline Electronics, Inc.</i>	1988	44*	Manufacture of multi-layer flexible and rigid circuits boards
7. <i>Chrontel Inc.</i>	1988	50	Development and sales of proprietary integrated circuits and modules
8. <i>Wearnes Hollingsworth Corporation</i>	1990	97	Manufacture and marketing of solderless terminals and connectors
B. Canada			
1. <i>ALR (Canada), Inc.</i>	1991	100	Marketing and distribution of ALR PCs

Key: Est'd denotes established

@ Started as a manufacturing subsidiary but in 1985, the production function was moved to Singapore.

* Listed/Majority shareholder.

continue

Table 7.5 (continued)

Location & Subsidiary Company	Year Est'd	Equity (%)	Principal Business Activities
<u>C.UK</u>			
1. ALR (UK) Ltd	1990	41*	Marketing and distribution of ALR PCs
2. Wearnes Computer Systems Ltd.	1990	97	Trading in PCs and related peripherals
3. Interconnectors Products Ltd.	1991	58	Manufacture and marketing of connectors including inductive components, screw machine sockets and solderless terminals
<u>D.Germany</u>			
1. Wearnes Computer Systems Ltd.	1991	97	Trading in PCs and related peripherals
2. Wearnes Hollingsworth Europe GmbH	1992	58	Manufacture of electrical and electronics components
<u>E.China</u>			
1. Wearnes Technology Ltd.	1989	97	Product R&D, project engineering and property development
2. Shenzhen Lansin Engineering Co. Ltd.	1989	51	Engineering design works
3. Tangshan International Plastics Co.	1989	90	Manufacture of flexi-packaging products.
4. Shenzhen Wekco Biotechnology Ltd.	1990	87	Manufacture and marketing of diagnostic kits, enzymes and related medical products.

Key: Est'd denotes established

* Majority shareholder.

continue

Table 7.5 (continued)

Location & Subsidiary Company	Year Est'd	Equity (%)	Principal Business Activities
5. Shenzhen Technology Development Corporation	1990	58	Development, manufacture and marketing of product and technological processes.
6. Wearnes Guangxi Stone Materials Co. Ltd.	1990	55	Processing of granite slabs and quarrying of granite blocks
7. Shuzhou Wearnes Technology Ltd.	1991	68	Manufacture of switching power supplies and keyboards and development of application software for language translation
8. Shenyang Hua Xing Development Ltd.	1991	67	Development and marketing of commercial building materials
<u>F. Taiwan</u>			
1. Wearnes Technology Ltd.	1989	97	Product development and marketing of computer peripherals and related products
<u>G. Malaysia</u>			
1. Wearnes Electronics Sdn. Bhd.	1985	98	Assembly of electronics components and computers
2. NCD Wearnes Sdn. Bhd.	1989	41*	Stamping, plating operations and the supply of load-frames to semi-conductors industry
3. Mumps Systems Support Sdn. Bhd.	1990	82	Stamping and plating operations

Key: Est'd denotes established

* Majority shareholder.

continue

Table 7.5 (continued)

Location & Subsidiary Company	Year Est'd	Equity (%)	Principal Business Activities
H. Hong Kong			
1. <i>Canadian Charagraphic Technologies Ltd.</i>	1990	31*	Manufacture and marketing of "character recognition" apparatus and related products
2. <i>United Circuit Ltd.</i>	1990	97	Manufacture of flexi-packaging products including double and multi-layer boards
I. South Korea			
1. <i>Wearnes Hollingsworth (S.Korea) Ltd.</i>	1991	100	Marketing and sales of connectors
J. India			
1. <i>Wearnes Hollingsworth (India) Ltd.</i>	1991	100	Marketing and sales of connectors

Key: Est'd denotes established
* Majority shareholder.

Sources: Personal interviews, *Company Annual Reports* (various years), *Handbook of Singapore Companies* (1992)

(ii) Europe

In the European Community (EC), Wearnes Tech has two production (i.e. in Germany, Stolberg and the UK, Castleston) and three marketing subsidiaries (see **Table 7.5**). The electronics and electrical components made in its factories in Germany and the UK are aimed at their respective domestic markets. On the hand its marketing subsidiaries support the sales of its own brands of PCs (i.e. *ALR* and *Wearnes Series*) which are developed mainly in the USA and Singapore. In Eastern Europe (i.e. St. Petersburg, Russia), it has a marketing subsidiary for its own brand of PCs made in its Asian subsidiaries.

(iii) Asia

In Southeast Asia, Wearnes Tech has three production subsidiaries in Malaysia. The activities carried out in these subsidiaries are mainly labour-intensive (e.g. assembly of PCs and stamping). The products made by these Malaysian plants are also primarily for re-exports to nearby regional markets (including Singapore).

In Northeast Asia, Wearnes Tech's production facilities include eight manufacturing bases in China, two in Hong Kong and one in Taiwan (see **Table 7.5**). Most of the business activities in China and Taiwan involve the whole value chain (i.e. R&D, manufacturing, assembling and marketing). Around 70% of its products made in China are for re-exports to its production subsidiaries and or end users in world markets.

7.2.3 Entry Mode, Ownership Strategy and Trends

Generally, Wearnes Tech's entry into the FDI route begins with the setting up of overseas expansion follows the "stages of development" approach

Table 7.6 Wearnnes Tech's Major Cross-border Acquisitions (1984-1990)

Year	Company Acquired	Company Location	Share Acquired (%)@	Amount Paid ('000)	Main Business Activities and Product Lines @
1984	Weltec Digital, Inc.	USA	89	1000	Manufacture and marketing of disks drives
1985	Advanced Logic Research, Inc.	USA	63	640	R&D, manufacture and distribution of ALR PCs.
1985	Cincinnati Control Dynamics, Inc.	USA	25	NA	Development, manufacture and marketing of PCs, workstations and office automation equipment and systems
1985	Speedling, Inc.	USA	89	NA	Automated production of seedlings and software development for equipment used in agriculture, horticulture and forestry
1985	Behavioural Tech Computer Corp.	Taiwan	25	NA	Manufacture and assembly of computer keyboards
1987	Multitec Engineering, Inc.	Taiwan	22	NA	Engineering design of machine tools
1987	P. T. Omedata Electronics	Indonesia	27	NA	Manufacture and distribution of electronics components
1989	Multi-finline Electronix, Inc.	USA	44	910	Manufacture of flexible and rigid circuits

(continue)

Table 7.6 (continued)

Year	Company Acquired	Company Location	Share Acquired (%)@	Amount Paid ('000)	Main Business Activities and Product Lines @
1989	Chrontel, Inc.	USA	45	1000	Design and manufacture of integrated circuits boards
1989	New Dest Corp.	USA	35	2200	Design, manufacture and marketing of document scanners
1990	Tandberg Data A/S	Norway	39	16700	R&D and manufacture of data, terminals and tape cartridges
1990	Wearnes Hollingsworth Corp.	USA	97	5500	R&D, manufacture and marketing of solderless terminals and connectors
1990	Interconnection Products Ltd.	UK	16	NA	Design, manufacture and marketing of electronic inter-connecting devices
1990	Microscience International Corp.	USA	20	NA	Design and manufacture of disks drives
1990	Qume Corp.	USA	58	82000	Manufacture of computer peripherals

Keys: @ See Table 7.5 for current equity share and principal activities
 NA - Amount was not disclosed

Sources: Personal interviews, *Company Annual Reports*; *Business Times*; *The Straits Times*; and *Financial Times* (various years)

(see **Chapter 2**). However, international experience in dealing with big sales contracts with OEM based in the Triad (e.g. *IBM, Apple, Compaq, Siemens and Fujitsu*) and a diversity of customers of different cultural backgrounds usually begins in Singapore, where there is a high concentration of American, European and Japanese MNEs (see **Chapter 4**).

Initially, its marketing subsidiaries were established in the home countries of these foreign MNEs mainly to seek the approval of their headquarters for sales of products manufactured in Singapore. Later on, when its products have been approved on a worldwide basis, it usually switches from exporting to direct production in countries where Wearnes' existing OEM customers are located (i.e. in the home and/or host countries of these OEM). This move into manufacturing is usually made by a cross-border friendly acquisition (see **Table 7.6**) or through joint-venture with local firms in the host countries.

In Mr Heugle's opinion, FDI via acquisition is quick and in Wearnes Tech's experience, less risky than a wholly-owned new start-up. Another reason for not favouring wholly-owned type of investment is that, in the words of Mr Hoong, the Group General Manager for International Marketing and Sales, "Wearnes is a very small company by any definition". It lacks the resources to run an overseas manufacturing subsidiary "from scratch". To reduce risks, it acquires only small hi-tech companies. For example, in 1985, when it paid US\$ 640,000 for a 63% interest in *Advanced Logic Research Corporation* (ALR), in the USA, the latter was just a new start-up with only 3 employees. Today, ALR (USA) has nearly 400 employees and assets worth at least US \$70mn.

Wearnes Tech also adopts an incremental approach in taking a stake in the assets of its eventual larger takeover targets. This is especially so in countries where it is not familiar with the environmental and marketing conditions. For instance, in September 1990 when it decided to set up production facilities in Norway, it took only 40 per cent equity stake in *Tandberg Data A/S* (a subsidiary of *Siemens*), leaving the option to acquire another 14.8 per cent of the share it was offered for the next few years.

In regard to ownership in joint venture, like both YHS and TPL, Wearnes Tech prefers to gain gradual majority share. However, unlike YHS and TPL, it generally favours forming partnerships with indigenous firms of its host countries rather than with firms from third countries so as to expedite market access. For example, in China virtually all its subsidiaries are joint ventures with Chinese firms (see **Table 7.5**). This ownership strategy seems most appropriate as it provides Wearnes Tech privileged access to the huge Chinese market (e.g. a guarantee of at least 30% of the particular subsidiary's total output in China). Similarly, in Germany, its production subsidiary, *Wearnes Hollingsworth Europe GmbH*, is a joint venture with *William Prymtec Weake GmbH*, an established electronics component manufacturer based in Germany.

Currently, the USA accounts for the bulk of Wearnes Tech's FDI and profits (see **Table 7.7**). Like many overseas Chinese MNEs in Asia, the main focus of its overseas expansion strategy in the 1990s is to increase its presence in China. Ultimately, it aims to integrate its manufacturing operations globally. The following sections analyse the motives behind these strategies.

Table 7.7 Wearnes Group's Profits/(Loss) by Geographical Location, (1988-1991, S\$)

Country/Location	1991	1990	1989	1988
North America	40328	27843	11272	5406
Singapore	9697	34039	31969	19612
Other Asian Countries	2158	3323	11290	7212
Others	(5153)	373	-	-
Associated Companies	(6297)	(6583)	-	-

Note: Classification of profits by geographical location only began in 1988.

Source: Company internal publications (various years).

7.3 Motivations for FDI

"We decided that we had to go global and create our own technology if we want to control our destiny"(1), Mr Tang I-Fang, Chief Executive Officer of Wearnes Group

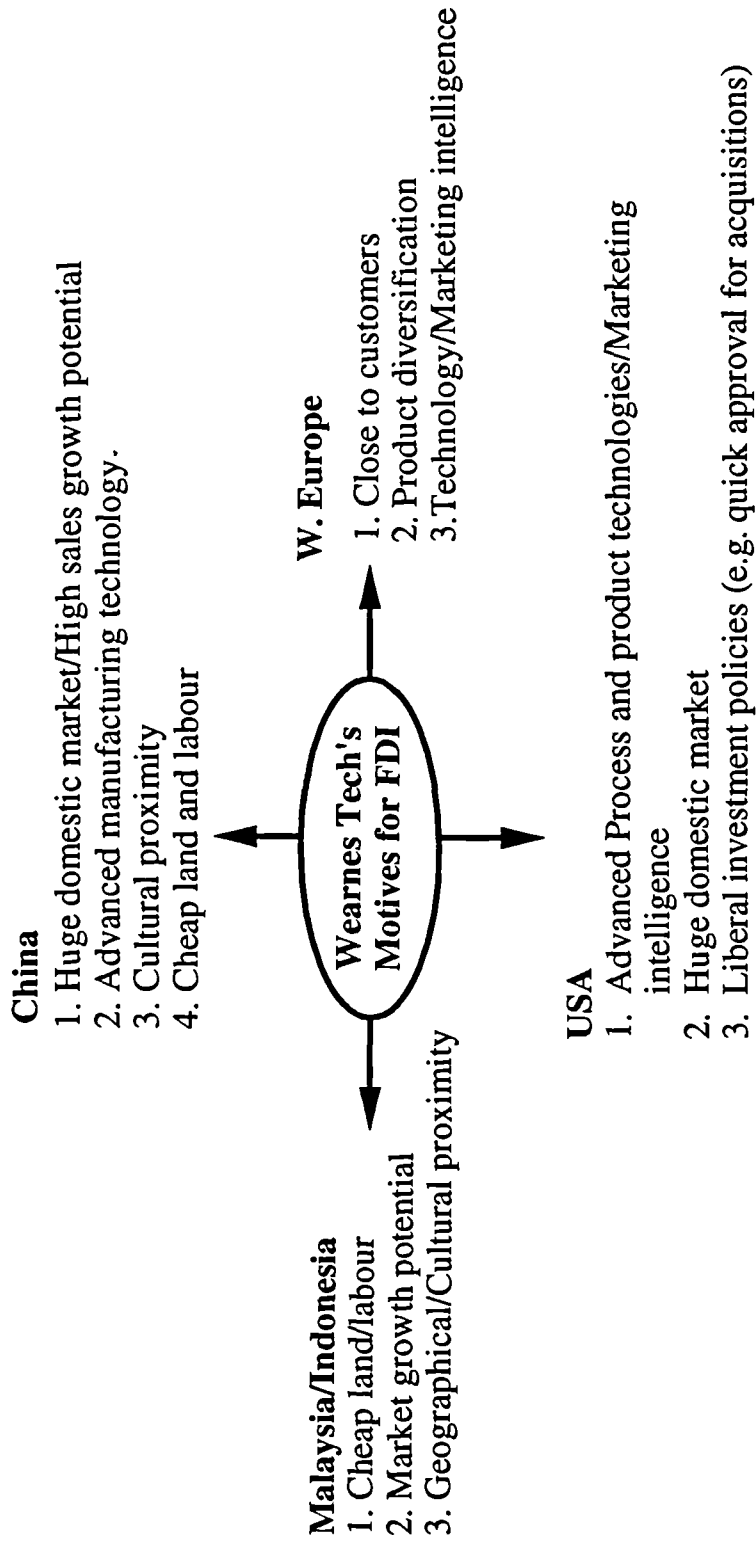
Business Times , 15 January 1990

Figure 7.3A outlines Wearnes Tech's main motives for FDI by geographical locations. Overall, apart from its current investments in Southeast Asia, where the primary motives are to lower production costs, the Company takes a long term view of its FDI activities worldwide.

(i) The USA

Since 1983, when it began its diversification programme into the manufacturing and electronics related industries, Wearnes Tech has

Figure 7.3A Wearnes Tech's Prime Motives for FDI by Main Locations



Source: Personal interviews

recognised the need to keep abreast of developments in new technology. It regards the USA as a source of advanced technology and marketing intelligence. The huge US market is also a "pull" factor but certainly, to quote Mr Dennis Chan, General Manager of Wearnes Automation, Wearnes aims "to bring the expertise and the technology back to Singapore" along with the companies it has acquired in the USA. In short, the most important motive behind Wearnes Tech's FDI activities in the USA is "technology-seeking" (i.e to identify and acquire innovative product and process technologies), followed by market-oriented reasons.

(ii) The EC

Like other non-EC MNEs, Wearnes Tech has recently established a "presence" in the EC for market-oriented reasons (e.g. to gain market access). However, unlike most MNEs from the Asian Pacific Rim, its FDI activities in the EC are not spurred by protectionism or fears of a "Fortress Europe" after 1992, as manifested in the "market share-holding" strategies adopted by Korean and Japanese MNEs (see Young et al, 1991, p.11).

Wearnes Tech's' decision to establish European manufacturing facilities is due to the nature of competition in the electronics industry and the diversity of product lines required by its customers in Europe. For example, OEMs expect a very short delivery time (i.e within a month) and products need to be "customised" to the needs of each particular OEM. Given the diversity of product lines (e.g. as many as 30,000 models), it, therefore, invests in Europe to be "close to its customers" and to improve its cash flow through the application of "just-in-time" techniques. In fact, this is similar to the strategy that its major competitors are adopting (e.g. US-based *Molex*, where Mr Heugle and some of Wearnes Tech' senior

US-based *Molex*, where Mr Heugle and some of Wearnes Tech' senior executives had previously worked).

In other words, the formation of the Single European Market has not had a catalytic effect on Wearnes Tech's recent forays into Europe. It is adopting a "wait-and-see" approach to establishing manufacturing facilities in the EC for its own brand of computers. According to Mr Heugle, it is Wearnes Tech's experience that approval of take-overs in the EC member countries tends to be a little slower forthcoming than is the case in the USA.

In both Mr Heugle's and Mr Hoong's opinions, Wearnes Tech will only increase its commitment in Europe after "it has better feel of the market place". For example, it may consider having integrated manufacturing facilities for its finished products in Europe (e.g. PCs, equipment for the food and petrochemical industries) similar to those it already has in the USA and Singapore.

Unlike for most Asian MNEs (Young et al, 1991; Kume, 1991; McDermott, 1989; World Bank, 1989), Wearnes Tech's choice of site location and investment decisions in the EC are not influenced by language and host government incentives. The English language is not a factor in its choice of location site in the EC as it has been able to recruit Singaporeans who are graduates of non-English speaking European Universities. Another reason is because it adopts a policy of employing host country nationals for managerial posts in its overseas subsidiaries.

On the whole, Wearnes Tech favours Germany over other European

countries as a production location site because of its infrastructure and availability of skilled labour. According to Mr Heugle, "we ended up with a factory at a very attractive price in the UK, Castleton" because it was part of the assets of *Interconnection Products (USA) Incorporated*, a bankrupt company which was originally owned by *Midland Ross (USA)*.

(iii) China

Wearnes Tech believes that the economic reforms introduced in China offer greater future growth opportunities and threats than the formation of the Single European Market. It regards China not just as a source of cheap labour and land but also of advanced technology. In fact, based on its past experiences, China has lots of "hidden costs" which can make operations there uneconomical (e.g. delays caused by poor infrastructure, monolithic bureaucracies and foreign exchange controls).

Overall, Wearnes Tech's FDI decisions are not simply based on cost reductions. Rather, it is the nature of competition in the industry and marketing conditions in the country and how its operations in the latter can fit into its overall corporate strategy that influence its investment decisions.

According to Mr Hoong, China has a large pool of scientists and engineers. They were trained initially mainly for the now declining defence industry. Wearnes Tech anticipates its competitors, especially those Hong Kong and Taiwanese companies which are already there, will soon use China as a product engineering and development centre and not merely as a manufacturing backyard for their labour-intensive activities. Wearnes therefore wants a "head start" in tapping into the Chinese R&D talents and

establishing a presence in the potentially large Chinese market. Chinese engineers now write software for Wearnes computers and electronics products, design high precision moulds and machine tools for world markets in Wearnes Tech's subsidiaries located in China's Southern coastal region (e.g. *Shenzhen Technology Development Corporation*, *Shenzhen Lansin Engineering Limited* and *Wearnes Technology (Shenzhen) Limited*). In Northern China, Shenyang Wearnes has collaboration with China's North Eastern University to develop specialised software.

Wearnes Tech's market-oriented types of investment in China are mainly fuelled by its management team's confidence that the high growth rates experienced by the Chinese economy since the late 1980s (i.e around 7-10% annually) will continue for at least another decade from now, even though while most advanced industrial nations are still in recession. For example, in the first half of 1992, China's GNP rose by 12 per cent while its industrial production and retail sales expanded by 18 per cent and retail 14 per cent respectively despite the economic downturn in China's main export markets (i.e. the USA and Europe).

Wearnes Tech's senior corporate manager are of the view that China's Southern coastal provinces are now going through the same industrial evolution that the East Asian NIEs experienced in the late 1960s to the 1980s. Unlike the NIEs, however, China has a large domestic market and relatively abundant supply of natural resources. It is still a fairly closed market and may therefore follow a different business cycle from the rest of the world if the Chinese government continues to pursue its present industrial and economic policies.

Indeed, Wearnes Tech's top management is optimistic that most developing countries in the East-Asian Pacific Rim will continue to grow at 6 to 10 per cent throughout the 1990s despite the recession in the West. Thus, it is already making plans to establish building materials and machine tools in Vietnam.

7.3.1 Other Influencing Factors

On the whole, Wearnes Tech's FDI activities cannot solely be explained by the stages of development and/or economic approach (see **Chapter 2**) For example, its recent FDI in Germany with *William Prymetc GmbH* was also influenced by the good working relationship it was enjoying for the past five years with the latter in Singapore.

According to all executives interviewed, the entrepreneurial drive of Wearnes Group's top management team's, particularly its Chairman's (i.e. Mr Tang I-Fang's) outward looking deposition and the Wearnes Group's association with the cash rich bank, *Overseas Chinese Banking Corporation* (OCBC) also have a major influence upon Wearnes Tech's international business strategies.

Moreover, cultural factors such as language (i.e. Mandarin) and ethnics ties have also influenced Wearnes Tech's investment decisions particularly in China.

Lastly, the appreciation of the Singapore dollar against all other major currencies, in general, also has exerted some influence on Wearnes Tech's FDI decisions in the USA and the UK. For example, it finds the appreciation affects its export competitiveness.

7.4 The Impact of FDI on Wearnes Tech's Performance

Figures 7.4 and 7.5 outline the impact of FDI upon Wearnes Tech's performance. The following sub-sections analyse in detail the impact of FDI upon Wearnes Tech's financial, production, technology, marketing, procurement, and human resource management performance.

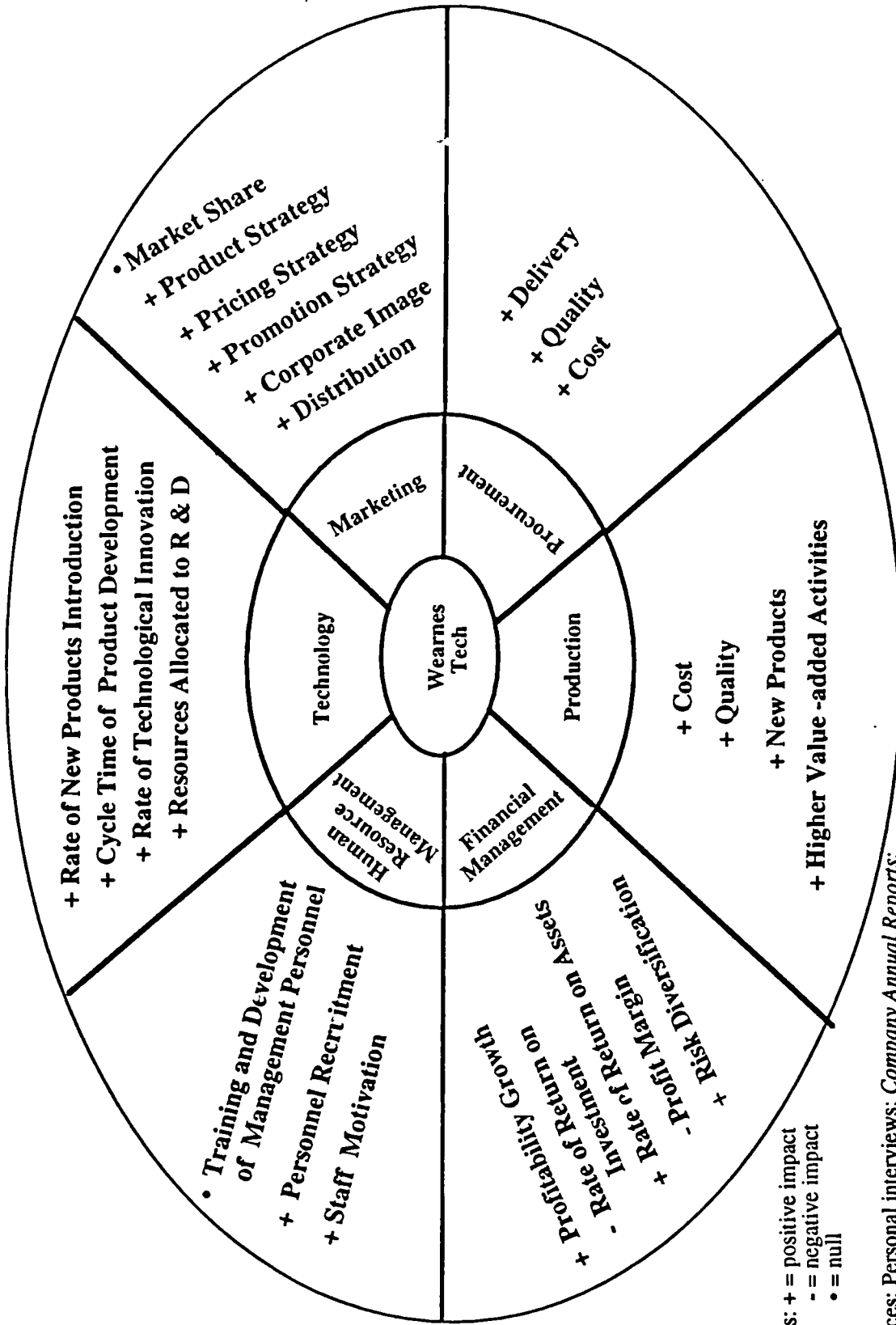
7.4.1 Financial Management

Unlike European MNEs (Buckley et al 1988, 1983), Wearnes Tech usually sets a higher profit margin for its local operations rather than those overseas, due to the favourable cost structure in Singapore (e.g. low corporate tax, energy costs and prime interest rates). The time-frame it sets for each new Wearnes Tech subsidiary to achieve a positive cash flow depends mainly upon the prevailing economic conditions of its host countries, the types of activities performed and the nature of the competition in its industrial sector. For example, some manufacturing subsidiaries are expected to achieve positive cash flow within three months after start-up (e.g. those in the Southern coastal regions in China) and within two years for those in the more mature Western economies.

Table 7.1 shows that from 1984 to 1985, Wearnes Group's profits before tax shrunk by 30 per cent, shortly after it first embarked on the FDI route. However, between 1985 and 1990, the Group's turnover and pre-tax profits grew at an annual average of 44 per cent to 52 per cent. However, its profits fell by 61 per cent in 1991.

According to Wearnes Group's internal company reports, the losses were mainly incurred by its subsidiaries in the service-oriented Divisions (e.g.

Figure 7.4 Impact of FDI upon Wearnes Tech's Performance



Keys: + = positive impact
 - = negative impact
 • = null

Sources: Personal interviews; Company Annual Reports; Business Times; Electronics Business Asia; Asian Business (various years)

Figure 7.5 Impact of FDI on Wearnes Tech's Performance: Degree of Importance

	Qualitative	Quantitative
Most Significant Benefits	Product / Market diiversification Flow of marketing information Recruitment of skilled personnel locally and internationally Cycle time of product development	Market share in home country
Fairly Significant Benefits	Vertical backward integration - securing supply of components and raw materials Corporate image Promotion strategy (e.g branding and after sales service) Rate of technological innovation	Cost reduction (e.g. savings from economies of scope in R&D activities and pricing advantage in procurement of components and raw materials) Sales turnover (for 1985 - 1990) Profitability (for 1987 - 1990) Resources allocated to R&D and advertising
Insignificant or No Impact	Management development and training	Market share in host country Sales turnover (1991 -1992)
Fairly Significant Negative Impact		Profitability (1990 -1992)

Sources: Personal interviews, *Company Annual Reports* and *Electronics Business Asia* (various years).

the Trading and Distribution and Leisure and Properties Divisions) and its associated companies [e.g. *Microscience International (Singapore) Pte Ltd.*, *Systonetics Corporation (USA)*, *Behavioural Tech Computer (Taiwan) Corporation* and *Polytex (Hong Kong) Ltd.*].

From 1990 to 1991, profits made by the Wearnes Group's subsidiaries in the Technology and Manufacturing Division (referred to as Wearnes Tech for short, see **Figure 7.2**).grew by 10 per cent. However, in 1992, due to the world-wide "shake-up" and "price-wars" in the computer industry which began in the second half of 1991 (*Financial Times*, 4 April 1992) and the international recessionary environment, losses incurred by Wearnes Tech alone totalled S\$ 45mn. To offset these losses, the Wearnes Group had to sell its assets in *Wearnes (Thailand) Realty*. The overall loss for the Group was S\$ 17.7mn in 1992.

Despite its dismal financial performance in 1992, Wearnes Tech's senior management team believes its integrated development production strategy of having a wide geographical production base and a broad product range has helped it to diversify some financial risks. For example, it is now less dependent on a single or limited market (e.g. exports to the USA, or sales to foreign MNEs located in Singapore) and less susceptible to the vagaries of the hi-tech industry. For instance, 75 per cent of its components are building blocks for electronics and computer industries such as connectors, disk drives, display monitors, motherboards, die-casting and plastic-injection moulds, scanners, magnetic heads and printed integrated circuits.

In Wearnes Tech top management's view, these basic parts are likely to be in demand despite rapid changes in the designs of consumer electronics or

computers. Probably, this has also helped its newly acquired US and UK components manufacturing subsidiaries to make financial contributions to the Wearnes Group over the last two years despite being unprofitable before their takeovers. However, according to the *Company Annual Report* (1991), as a prudent measure, it has also made a provision of S \$16mn for possible stock obsolescence.

Overall, Wearnes Tech views the financial set-back it is suffering as a result of the poor performance of some of its OEM customers in the computer industry as a "cleansing process" that may be good for the Company in the long-term. For example, it sees this as an opportunity to focus on increasing its in-house R&D efforts in software and products selling under its own brand names and which it is more likely to have a technological lead over other established Western OEMs (e.g. computer software development in Chinese and other Asian languages, healthcare products and agro-technology).

7.4.2 Production and Technology Management

The following analysis looks at the major impact of FDI on Wearnes Tech's production and technology management performance in terms of: (i) vertical integration and product diversification, (ii) acquisition of process technologies, (iii) higher value-added activities, (iv) R&D expenses and in house innovation capability.

(i) Vertical Integration and Product Diversification

As stated earlier, Wearnes Tech aims to integrate its manufacturing facilities globally. Currently, the combined capabilities of its 26 production bases in Singapore, the USA, China, Germany, the UK, Malaysia,

Indonesia, Taiwan, Hong Kong and Norway can now manufacture all the parts and components for a personal computer except the fabrication of wafers.

Through the exchange of parts and components produced in its international manufacturing network of subsidiaries, Wearnes Tech is now able to realise the competitive advantages of each location in diversifying product lines, cost, quality and distribution. For example, with the acquisition of manufacturing facilities of *Interconnection Products Incorporated* in the USA and the UK, it is now manufacturing a wide range of "time-sensitive" and highly specialised connectors for not just the computer industry but at the same time for the telecommunication and aerospace industries in these host countries. It is also able to support the MNEs in these industries which have offshore production bases in Southeast Asia from its production subsidiaries in Singapore. From 1990 to mid-1992, its total production volume in the component business [i.e. organised under *Wearnes Hollingsworth Group* (see **Figure 7.2**)] increased by 16 times.

(ii) Higher Value-Added Activities

Wearnes Tech's current production facilities in Singapore are as capital-intensive as its plants in Western Europe and the USA. Over the last three years, automation and re-location of labour-intensive activities from Singapore to nearby Asian countries (e.g. Malaysia and Indonesia) in response to cost pressures, has allowed Wearnes Tech (like YHS and TPL), to restructure its home production operations and move up the technological ladder.

Assistance from the *Economic Development Board (EDB)* and the *Singapore Institute of Standards and Industrial Research (SISIR)* has also helped Wearnes Tech to upgrade its technology locally and widen its market access overseas. For example, it is receiving investment incentives and support from the skills development fund (but amount was not disclosed) from the EDB to undertake joint product and market development projects with *SISIR*, academic institutions, and foreign MNEs located in Singapore (e.g. *William Prymtec (Germany) GmbH* and *Nippon Chemical Denshi (Japan) Co. Ltd.*). In other words, the presence of foreign hi-tech manufacturing MNEs has also given Wearnes another means of upgrading its technology locally through participation in the EDB's *LIUP* scheme (see **Chapter 4**).

(iii) Acquisition of New Product and Process Technologies

All Wearnes Tech's executives interviewed agreed that the parent company has enhanced its capability in creating new process and product technologies along with that of the overseas companies it acquired. For example, its operations in Singapore have benefited from the transfer of automation skills from its US subsidiaries; stamping skills from its European subsidiaries; and skills in the design of high precision moulds and machine tools from its Chinese subsidiaries.

The benefits of Wearnes Tech's overseas R&D activities are also reflected in the number of new products introduced by its overseas subsidiaries and the international recognition of its own brands of PCs received since 1987. For example, for three consecutive years (i.e. 1987 to 1989), its computer series, namely *ALR 386/220* and *ALR Flexcache 25386* won the US-based *PC Magazine's* "Best PC of the Year" and "Technical

Excellence" awards respectively at the *Comdex Show* in the USA. In 1989, another of its *ALR* series of PCs called *ALR Powerflex System* also won the "Award of Distinction" from *Byte Magazine*. Lastly, in 1990, its *ALR Microflex 3300* was also chosen by *PC Magazine* as one of the two Editor's choices for its speed and versatility among ten other competing brands.

Wearnes Tech's overseas research efforts have also diversified its product lines and enabled it to enter into new markets. For instance, in 1991, several new patented products (e.g. frequency synthesisers) were introduced in the USA as a result of product development in integrated circuits designs and related activities at *Chrontel (USA) Incorporated*. Another example is the high resolution graphic (VGH) monitors which Wearnes is producing for world markets. They were originally developed by its research team in Taiwan.

Currently, *Advanced Logic Research Incorporated*, Wearnes Tech's US subsidiary and the "star performer" in PCs production technology, licenses its technology to its other subsidiaries worldwide. This is because each Wearnes Tech subsidiary is in itself seen as a profit/loss centre. Plans are also being made to transfer agro-technology (e.g. fully automated method of propagating seedlings and cultivation of genetically engineered plants and patented as *Speedling II & III*) from its wholly-owned subsidiary, *Speedling (USA) Incorporated*, to Asian countries.

(iv) In-house Innovation in Singapore Plants

Prior to 1983, Wearnes Tech's R&D expenditure was minimal, though it had risen to 5 per cent in 1987. However, since 1990, its overall annual

R&D expenses have risen from 8 to 10 per cent of total sales. This increase would have been impossible without the successful marketing of new products developed by its overseas subsidiaries.

Since 1990, according to Mr Heugle and Mr Hoong, an increasingly number of new process and product innovations were also developed in-house in Wearnes Tech's various R&D centres in Singapore through collaborations with local academic institutions. For example, in 1990, *Wearnes Automation-Nanyang Technological University Joint Research Centre* developed an inputting system that is able to recognise 6,763 Chinese characters, alphanumeric and conventional symbols. This is indeed a major breakthrough in computer software technology called *Natural Inputting System*. It enables a user to pen Chinese characters into computers instead of keying in through the laborious and time-consuming keyboard system. Research is also now being carried out to adapt it to other Asian languages.

Another innovation achieved by this Centre is the miniaturisation of size of electronics and electrical components. Wearnes plans to develop this Centre, which now employs around 40 full-time R&D engineers (all with postgraduate engineering qualifications), into its overall top "R&D excellence centre" for its world markets.

7.4.3 Human Resource Management

Like YHS and TPL, Wearnes Tech does not use overseas postings as part of the career development plan for its junior executives or as a means of developing a pool of Singaporean "international managers" in its parent company. Currently, it sponsors its executives for advanced management

courses of prestigious overseas business schools. In future, however, Wearnes Tech may consider using overseas appointments as tools for managerial training and development.

Except for its operations in China, it is Wearnes Tech's policy to employ host country nationals to run its overseas subsidiaries. This policy is based on its belief that "localised" managers will help WearnesTech to reduce its "foreignness" in the host countries. Besides, it faces great difficulty in persuading its Singaporean middle management staff to work in its subsidiaries in Europe and North America. Like YHS, the most common reason cited by its staff for not willing to work overseas was related to the education of their children. For example, because Singapore has a bilingual policy (i.e. it is compulsory for students between the age of five to eighteen to learn their mother tongues such as .Mandarin, Malay or Tamil and a foreign language), they are afraid that their children will have to struggle with their studies when they return to Singapore after a stint overseas.

In order to exercise better control over its overseas operations, like YHS and TPL, Wearnes Tech also adopts a policy of sending its senior executives with international operational experience to inspect its overseas plants regularly. Consequently, the majority of executives who pioneered its manufacturing FDI and who are now heading its operations in Singapore are ex-employees of foreign MNEs located in Singapore or elsewhere. They also tend to be engineering graduates (even for marketing posts) of overseas universities who have attended some form of advanced management programmes sponsored by Wearnes Tech while on the job. Because Wearnes Tech has such a wide international network, these

executives usually have to spend as much as 70 per cent of their time on overseas assignments.

In other words, the presence of a such high concentration of foreign manufacturing MNEs in Singapore (see **Chapter 4**) has indirectly given Wearnes Tech's production subsidiaries some training ground for skilled managers with engineering background. Arguably, its multinational operations has enhanced its ability to compete with foreign MNEs located in Singapore in local staff recruitment and in attracting talents worldwide. For example, Mr Heugle is a German and some of its product managers are Americans and Taiwanese. All of them have managerial experience in running hi-tech MNEs located in the USA and Europe prior to being sent to Singapore by their ex-employers. Probably, the change in employment policy of expatriate managers by foreign MNEs in the face of weak economic conditions in their home countries and the high standard of living conditions in Singapore may have made it easier for Wearnes Tech to attract these foreign "international managers".

Indeed, it was reported in the *Straits Times* (17 July 1992) that "head hunter" agencies such as *Boyden International, Management Consultant and Drake Beam Morrin* had around 2000 senior European and American expatriate managers on their list seeking employment in Singapore (see **Table 7.8**). Moreover, they revealed that at least 80 per cent of these retrenched expatriates are willing to forgo perks like housing allowances, return airfare and education allowance for their children if they are employed in Singapore.

Table 7.8 Profiles of Expatriates Retrenched by Foreign MNEs in Singapore Seeking For Local Employment (1991)

By Industry	%	By Job Function	%
Banking	30	Marketing/Sales	29
Manufacturing	17	General Management	26
Chemical/Oil	16	Operations	13
Consumer Products	9	Finance	12
Pharmaceuticals	7	Personnel	7
Food & Beverage	6	Administration	6
Transportation	2	Engineering	6
Trading	2	Others	1
Insurance	1		
Others	2		

Source: *Drake Beam (Singapore) Morrin*, published in *The Straits Times*, 17 July 1992, p.48.

Overall, by transferring manufacturing and marketing facilities overseas, Wearnes Tech is no longer restricted by acute labour shortages in Singapore and is able to expand its local production capabilities and upgrade its process technologies (e.g. through automation and diversifying into innovative products lines). By the end of August 1992, in technical manpower resources alone, Wearnes Group has 712 scientists, engineers and technicians engaged in production technology development and research activities worldwide.

7.4.4 Marketing and Procurement Management

Although Wearnes Tech is the top Singapore-based electronics components and manufacturer and sixth largest (by sales turnover) public industrial company in Singapore (see **Chapter 5**), it is a very small company by international standards (e.g. as compared to US-based *Molex* and *IBM*). Thus, all executives interviewed by the researcher consider measures such as market share as irrelevant when assessing Wearnes

Tech's overseas marketing performance in the components and PCs businesses. However, FDI does have an impact on Wearnes' (i) domestic market share performance, (ii) pricing strategy and marketing information management (iii) corporate image and promotion strategy. The following examines each in turn.

(i) Domestic Market Share Performance

According to Mr Ban, a computer industry analyst in Singapore with *International Data Corporation*, although Wearnes Tech is a late player in the computer business, "*Wearnes-PCs* are already a household name in Singapore, and increasingly in the (Southeast Asian) region" (*Electronics Business Asia*, June 1991, p. 29). In Singapore, according to Mr Hoong, it currently has a 30 per cent market share and is competing with *Apple* for second place (after *IBM*) in sales volume. Most of its local customers are large commercial and government organisations.

On the other hand, it is still too early to assess if Wearnes Tech can do well in penetrating well established PC markets in the Triad. despite the many awards its *ALR* range of PCs has received from the renowned US-based *PC Magazine*. and *Byt Magazine*. Its *ALR* brands of *PCs* are more expensive and performance-oriented than *Wearnes -PCs* . They are aimed at the high-end markets and are mainly sold in the USA.

(ii) Pricing Strategy and Marketing Information Management

Wearnes Tech's ability to produce most of its components in-house gives it a procurement and pricing advantage over rival end products manufacturers (e.g. PCs and healthcare kits) which have to rely on international sub-contractors. As Mr Heugle said, in the component

business, Wearnes Tech sees a lot of synergy in marketing information flowing from its international network of subsidiaries into mould development in Singapore, stamping development in the UK and Germany and automation in the USA. For example, Wearnes Tech can send its tools makers from any of its subsidiaries worldwide to work with and help another subsidiary whenever necessary. This allows it to speed up the rate of product innovations.

(iii) Wearnes' Corporate Image and Promotion Strategy

Wearnes Tech's wide geographical spread of component manufacturing facilities has also helped it to promote itself as a reliable supplier for OEMs (which make up 30% of its business). With the globalisation of its component business, Wearnes Tech is at least able to convince big and established MNEs (e.g. *IBM, Apple and Siemens*) that it is able to support them not just in Singapore, but also in Ireland, the USA, Norway, the EC and other Asian countries. However, as Mr Hoong said, "Being an OEM contractor does not mean Wearnes Tech is a *sweatshop*. It also has its own in-house process and product innovation facilities."

Indeed, Wearnes Tech's recent forays into FDI and diversification from automobiles trading into the electronics business is also helping Wearnes Group as a whole to improve its local image as an "ultra-cautious and slow-moving company into a dynamic and nimble multinational" (*Electronics Business Asia*, June 1990, p.29). This change may be very important in the hi-tech industry and in Singapore, where the domestic market is very small and where the government strictly controls the population of vehicles through a quota system and by providing efficient public transport services. For example, Wearnes Group's Chairman and the

chief architect of its geographical and product diversification programmes, Mr Tang I-Fang, was awarded Singapore's "Business Man of the Year-1989" for having "the farsightedness and entrepreneurial spirits to look beyond the shores of Singapore" (*The Business Times*, 15 January 1990, p. 2).

Wearnes Group's overseas corporate image has also improved since it embarked on the FDI route. For example, together with 65 large and well established US, European and Japanese MNEs (see **Appendix 7A**), the Group was selected by the US financial daily newspaper *The Wall Street Journal* as:

"one of the few selected companies of the 90s and beyond that will lead advances in technology, find new ways to make and market products and services, and elevate the science of management to an art".

The Wall Street Journal, Continental Edition, 23 June 1989, p. 3A

(iii) Spin-offs for other Divisions

A wider spread of production and marketing bases geographically and in product lines also has some spin-off effects on the marketing of some of Wearnes Group's service-oriented Divisions (see **Figure 7.1**). For example, with technical support from Wearnes Tech, subsidiaries in the Group's Automotive and Industrial Equipment Division have extended their product lines to newer types of specialised vehicles (e.g. *Volvo* buses instead of just luxury cars such as *Rolls Royce* and *Jaguars*) and heavy industrial equipment (e.g. *Hamilton* jet engines and *JCB* excavators). In addition, Wearnes Tech's overseas production facilities for building

materials have not only given it an advantage in procurement of raw materials but also reinforced Wearnes Group's marketing activities in the Properties and Leisure Division.

Lastly, according to Mr Chia, the Wearnes Group Chief Financial Controller, through its international network of subsidiaries, the parent company has been able to compile systematically and continuously, a data bank of investment opportunities in North America and the Asian Pacific Rim. By 1988, the Group was able to set up its Financial Services and Investments Division and diversify into international financial services as one of its core business sectors (see **Figure 7.1**). This Division now owns 49 per cent in *Global Investment Holdings* (GIH). GIH is a Taiwan-based Company which undertakes privatisation assignments for government-owned corporations and cross-border deals for Taiwanese enterprises to make overseas direct investments in strategic, resource, and hi-tech industries.

In July 1991, through a tripartite joint venture with *The Walden Group* and *OCBC*, this Division also established a "Singapore Fund" and an "Offshore Fund". Each fund is worth between S\$ 50 to S\$ 70 mn. The former is designed to assist Asian companies seeking investments opportunities particularly in the Southeast Asia, while the latter is for the Pacific Rim, including in hi-tech industries in North America.

7.5 Factors Influencing Wearnes Tech's Performance

As discussed in the literature review (see **Chapter 3**), managerial related issues may have major implications upon the impact of FDI on an investing MNE's performance. In line with the objectives of this research,

this study focuses upon these two issues: (i) Wearnes Tech's preparation for FDI and feasibility studies and (ii) its international experience.

7.5.1 Wearnes Tech's Preparation for FDI and Feasibility Studies

Unlike YHS and TPL (see **Chapters 6 and 8**), Wearnes Tech does not have an international business or corporate development department which undertakes formal feasibility studies for its overseas expansion plans. It uses ad hoc committees (i.e. task force groups) and/or engages professional organisations such as merchant banks to identify overseas business opportunities and undertake the screening of production sites for the Company. It also receives advisory services from the Group's Financial Services and Investment Division (see **Figure 7.1**).

In practice, most of the "ground work" for setting up future production facilities is also often made by its existing marketing subsidiaries in the host countries. Moreover, generally a plan to set up an additional overseas subsidiary is based upon positive feedback on the market conditions of a particular country. The plan will only be implemented if the Wearnes Group as a whole is confident that it has the management commitment it considers essential to run the operations.

In other words, Wearnes Tech's preparation and feasibility studies for an overseas venture involves not just looking at the marketing opportunities and environmental variables such as sales forecasts, competition, infrastructure, labour in the prospective host country (Buckley et al 1988, 1983) but also the management resources (i.e. the time and skills required) within its Singapore parent company. This is because it prefers to send

senior executives from its operational headquarters in Singapore for regular inspections of its overseas plants to complement its policy of employing local managers for its subsidiaries in the host countries.

Moreover, it is its experience that Singaporean executives are reluctant to undertake overseas assignments. Lastly, Wearnes Tech also faces a shortage of managers with engineering skills. The manpower audit in the parent company is considered to be a very crucial part of the feasibility study for any overseas venture.

There is a general consensus among all the Wearnes Tech's executives interviewed that the feasibility studies and preparation made for an overseas venture can never be as thorough as they would like it to be. Moreover, Wearnes Group does not set a specific time-frame for such matters. From past experiences, the time taken for its Board of Directors to make a FDI decision (i.e. to set an overseas manufacturing plant) can take as little as 35 days to as long as two years, inclusive of the period spent in feasibility studies.

Unlike YHS and TPL (see **Chapters 7 and 8**), the bulk of Wearnes Tech's losses was from its local subsidiary, *Microscience International (Singapore) Pte Ltd.* and its overseas associated companies (i.e. where it holds minority share) such as *Systonetics Corporation (USA)*, *Behavioural Tech Computer (Taiwan) Corporation* and *Polytex Engineering (Hong Kong) Ltd.* Wearnes Tech's executives are therefore unable to give a specific real life example (e.g. YHS's *Chun King* operations in the USA) to illustrate how the preparation and feasibility studies it made prior to embarking on a overseas venture impact upon its subsequent performance.

All Wearnes Tech's executives interviewed take the view that, in reality, there are always some elements of uncertainty in any competitive business environment. Indeed, the timing of entry into a new foreign market or the introduction of a new product, can make a significant difference between success and failure. Thus, when a quick response is required (e.g. in a takeover bid), its senior corporate managers may sometimes not take a "rational and analytical" approach but let their entrepreneurial drive and business acumen shape some of Wearnes Tech's FDI characteristics.

7.5.2 Wearnes Tech's International Business Experience

Wearnes Tech is certainly a very 'late player' in the computer business. Until 1983, it was an automobiles and heavy industrial equipment trading company with distribution and sales centred in Malaysia and Singapore. In 1985, barely two years after it diversified into the PCs and peripherals related businesses in Singapore, it set up its first overseas marketing and manufacturing subsidiaries in its main export market, the USA (see **Table 7.5**). Even the Company's management team considers its entry into the electronics industry as a very bold move. It is no wonder it initially named its own brand of PCs *Wearnes-BOLDLINE*.

In 1985, Wearnes Tech also entered into the agro-technology software development and equipment business in the USA without any prior domestic operational experience. *Speedling Incorporated* and *Advanced Logic Research Corporation* were very successful within the first year of operations and thereafter. The former investment was made because Singapore cannot offer the land, market and skilled labour force to enable it to develop agrotechnology software and equipment into a viable business. market. The latter was made because it wanted to keep abreast

of new technological developments in the PCs business rather than to exploit the large US market.

Wearnes Tech's experience in dealing with international customers, however, begins with selling to large foreign MNEs in Singapore and exporting to their subsidiaries in other countries.

Furthermore, before Wearnes Tech embarked on its FDI routes and diversification programmes to save its ailing automobiles and heavy equipment trading businesses in Singapore, it recruited a team of managers and engineers with international operational experience in those industries which it considered to have growth opportunities. Most members of the newly recruited top level management team who pioneered its move overseas are still currently actively managing its local and international operations.

7.5.3 Other Factors Influencing Wearnes Tech's Performance

For the last two years, macro-factors such as the appreciation of the Singapore dollar against other major currencies has also had an adverse impact on Wearnes Tech's financial performance. For example, in 1991 and 1992, it made an extraordinary loss of S \$6.6 mn and S\$5mn respectively when its earnings abroad were converted into the Singapore currency. Over the same period, despite having an integrated production strategy and diversified product lines in many countries, it is also somewhat affected by the recession facing the major industrial nations. For example, its local subsidiary company, *Microscience International (Singapore) Pte Ltd.*, suffered some losses as a result of poor performance in the disk drives industry. One of its overseas associate company,

Synosetics Corporation (USA), went bankrupt.

Wearnes Tech considers the investment incentives (e.g. OHQ and pioneer status, product, market and skills development funds, see **Chapter 4**) it is receiving from the Singapore government (but the actual amount was not disclosed to this researcher) and the close working relationship it is having with the latter have also helped it to improve its technological and managerial skills, and subsequently gained competitive edge in its industry in a shorter period of time than its rival firms.

Wearnes Tech's executives also attribute its success as an international component manufacturer to its ability to work very closely with just a few "good OEM customers" and their "proactive approach" in identifying and solving problems. They also consider its ability to recruit a group of pioneers with international operational experience related to its core business activities and the strong commitments these senior managers have on its overseas operations as a source of competitive advantage (e.g. they make regular visits to inspect the overseas plants).

7.6 Research Propositions and Findings

Table 7.9 summaries the links between the research propositions and the empirical evidence gathered in Wearnes Tech. The following analysis looks at each in turn.

Proposition 1: Singaporean MNEs invest in industrialised countries to acquire advanced manufacturing technologies and marketing intelligence.-
Partially supported.

Table 7.9 Links between Research Propositions and Findings: Empirical Evidence from Wearnes Tech

Research Propositions	Conclusions
<p>1. Singaporean MNEs which invest in industrialised countries are motivated by strategic-oriented objectives such as the acquisition of advanced manufacturing technology and marketing intelligence.</p>	Partially supported
<p>2. Singaporeans MNE use overseas postings as tools to develop a pool of Singaporean international managers" in their parent operations</p>	Not supported
<p>3. Singaporean MNEs which have been motivated by the "pull" factors such market size and availability of raw materials tend to perform better financially than those motivated by "push factors" such as small domestic and high production costs.</p>	Not supported
<p>4. The greater the experience a Singaporean MNE has in international operations, the better the impact of FDI on its financial performance.</p>	Not supported

continue

Table 7.9 (continued)

Research Propositions	Conclusions
5. The mode of entry has a significant impact upon the financial performance of a Singaporean MNE.	Partially supported
6. There is a significant correlation between a Singaporean MNE's performance and the amount of preparation and feasibility studies made before it has decided to engage in FDI.	Partially supported
7 FDI makes a Singaporean MNE more successful domestically in terms of its positive impact upon the parent plant's operational functions such as its manufacturing technology, marketing and procurement management.	Strongly supported
7. FDI upmakes a Singaporean MNE more successful domestically in terms of its positive impact on the parent plant's overall profitability.	Partially supported

Sources: Sources: Personal interviews, *Company Annual Reports* (various years), *Handbook of Singapore Companies*, (1992), *Business Times* and *The Straits Times* (various years)

Since the onset of its diversification programme into the manufacturing and electronics related industries, Wearnes Tech recognises the need to keep abreast of developments in new technology. It also regards the USA as its main source of advanced technology and marketing intelligence. Surprisingly, since the late 1980s, it has also been investing in developing country such as China for "technology-seeking" reasons (i.e. to identify and acquire innovative product and process technologies).

According to Mr Hoong, although China is not an advanced industrialised nation, it also has a large pool of scientists and engineers. They were initially trained mainly for the defence industry. However, with the end of the Cold War, the Chinese government is reluctant to employ them in positions requiring considerable R&D work for military purposes. Wearnes Tech anticipates its competitors, especially those Hong Kong and Taiwanese companies which are already there, will soon use China as a product engineering and development centre and not merely as a manufacturing backyard for their labour-intensive activities. It therefore wants a "head start" in tapping into the Chinese R&D talents for world markets.

Chinese engineers now write software for *Wearnes* brands of computers and electronics products, design high precision moulds and machine tools for world markets in its subsidiaries located in China's Southern coastal region (e.g. *Shenzhen Technology Development Corporation*, *Shenzhen Lansin Engineering Limited* and *Wearnes Technology (Shenzhen) Limited*). In Northern China, Shenyang, Wearnes Tech is having collaboration with China's *North Eastern University* to develop specialised software.

Proposition 2: *Singaporean MNEs use overseas postings as tools to develop a pool of Singaporean "international managers" in their parent operations* - Not supported

The presence of a high concentration of foreign manufacturing MNEs in Singapore (see **Chapter 4**) has indirectly given Wearnes Tech's production subsidiaries some training ground for skilled managers with engineering background. For example, the majority of the senior executives who pioneered Wearnes Tech's overseas expansion and who are still heading its operations in Singapore are ex-managers of foreign MNEs. They also tend to be engineering graduates (even for marketing posts) of universities in Germany, Japan, the USA and the UK and have attended some form of advanced management training in established business schools overseas.

Except for its operations in China, it is Wearnes Tech's policy to employ local managers from the host countries to run its overseas subsidiaries. This policy is based on its belief that "localised" managers will help the Company to reduce its "foreignness" in the host countries.

Wearnes Tech also faces great difficulty in persuading its Singaporean middle management staff to work in its subsidiaries in Europe and North America (see **Section 7.4.3**). To exercise better control of its overseas operations, like YHS and TPL, Wearnes Tech adopts a policy of sending its senior executives with international operational experience to inspect its overseas plants regularly. Because it has such a wide international network (see **Table 7.5**), these executives usually have to spend as much as 70 per cent of their time on overseas assignments.

Currently, it sponsors its junior executives for advanced management courses in prestigious overseas business schools. In future, however, WearnesTech may consider using overseas appointments as tools for managerial training and development.

Arguably, Wearnes Tech's multinational operations has enhanced its ability to compete with foreign MNEs located in Singapore in local staff recruitment and in attracting talents worldwide. For example, Mr Heugle is a German and some of its product managers are Americans and Taiwanese. All of them have managerial experience in running hi-tech MNEs located in the USA and Europe prior to being sent to Singapore by their ex-employers. Probably, the change in employment policy of expatriate managers by foreign MNEs in the face of weak economic conditions in their home countries and the improvement in living conditions in Singapore over the last five years may have also made it easier for Wearnes Tech to attract these foreign "international managers".

Proposition 3: Singaporean MNEs which have been motivated by the "pull factors" such as market size and availability of raw materials tend to perform better financially than those motivated by "push factors" such as high local production costs and small domestic market. - Not Supported

Contrary to findings by Buckley et al (1988, 1983), those Wearnes Tech's overseas subsidiaries which were made in response to constraints in Singapore are more successful or just as successful as those attracted by its host countries' environmental and marketing conditions. For example, *Speedling (USA) Incorporated* and *Advanced Logic Research (USA) Corporation* (see **Table 7.5**) were very successful within their first

year of operations and thereafter. The former investment was made because Singapore cannot offer the land, market and skilled labour force to enable Wearnes Tech to develop agrotechnology software and equipment into a viable business. The latter was made because it wanted to keep abreast of new technological developments in the PCs business rather than to exploit the large US market. Indeed, overall, its direct investments in the USA and China has been its most profitable ventures (see **Table 7.7**).

Proposition 4: The more experienced a Singaporean MNE has in international business in terms of the length of time and the diversity of markets it was servicing prior to undertaking FDI, the better the impact of FDI upon its financial performance.- Not supported.

Until 1983, Wearnes Group was a automobiles and heavy industrial equipment trading company with distribution and sales centred in Malaysia and Singapore. Its international experience in dealing with a diversity of customers of different cultural background often begins in Singapore, where there is a high concentration of American, European and Japanese MNEs.

In 1985, barely two years after it diversified into the production of PCs and peripherals related businesses in Singapore, it set up its first overseas marketing and manufacturing subsidiaries in its main export market, the USA. However, these ventures were successful since the first year of their operations. Indeed, between 1985 to 1990, according to its internal company financial reports, profit contributions from its manufacturing related business activities, which account for the bulk of its FDI, grew by

an annual average of around 15 per cent (see **Tables 7.2** and **7.3**).

In 1992, however, its electronics and PCs business began to experience losses (see **Table 7.1**) as a result of a "shake up" and some "price wars" in the computer industry that began in second half of 1991 (e.g. see *Financial Times*, 4 April 1992). It is therefore not possible for all executives interviewed and this researcher to argue that the financial crisis Wearnes Tech is facing supports the proposition that its short international business experience has an adverse impact on the financial performance of its overseas venture.

Moreover, before Wearnes Tech decided to diversify geographically and expand its product lines to save the its poor automobiles and heavy equipment trading businesses in Singapore, it recruited a team of managers and engineers with international operational experience. Most members of this newly recruited top level management team who pioneered its move overseas are still currently running its local and international operations. Thus, although as a company, Wearnes Tech only has only around ten years of international business experience in the manufacturing industry, its top management team has around twenty years of working experience with MNEs.

Proposition 5: The mode of FDI entry has a significant impact upon a Singaporean MNE's financial performance overseas. - Partially Supported.

Wearnes Tech's manufacturing subsidiaries are usually established by

(non-hostile) cross-border takeover (see **Table 7.6**) or through joint-venture with local firms in the host countries. In its experience, acquisitions are less risky than a wholly-owned new start-ups. However, it also attributes some of its successes in joint ventures and acquisitions to its strategy of taking an incremental approach in acquisition. For example, in 1985, when it acquired *Advanced Logic Research Corporation* (ALR), in the USA, the latter was just a new start-up with only 3 employees. Today, ALR (USA) has nearly 400 employees and assets worth at least US \$70mn. As the Company gains more experience, it begins to acquire larger companies (see **Table 7.6**).

In regards to joint venture, unlike YHS and TPL, Wearnes Tech generally favours forming partnerships with firms based in its host countries rather than with firms from third countries in order to expedite market access. For example, in China, virtually all its subsidiaries are joint ventures with Chinese firms (see **Table 7.5**). This ownership strategy seems most appropriate as it provides Wearnes Tech privileged access into the Chinese market (e.g. a guarantee of at least 30% of its total output in China). In Germany, its production subsidiary, *Wearnes Hollingsworth Europe GmbH*, is a joint venture with *William Prymtec Weake GmbH*. The latter is an established electronics component manufacturer based in Germany.

Proposition 6: *There is significant correlation between a particular Singaporean manufacturing subsidiary's financial performance and the amount of preparation and feasibility studies made before it decides to engage in FDI.* - Not supported

All Wearnes Tech's executives interviewed take the view that, in reality, there are always some elements of uncertainty in any competitive business environment. Indeed, the timing of entry into a new foreign market or the introduction of a new product, particularly in the hi-tech industry, can make a significant difference between success and failure. Thus, when speedy response is required (e.g. in a takeover bid), its senior corporate managers may just rely on their entrepreneurial drive and business acumen to reach a FDI decision. Based on past experiences, these overseas ventures can be just or even more successful (e.g. *Advanced Logic Research Incorporated*, *Speedling Incorporated*) than those which were formed after it had taken a more thorough preparation and feasibility studies based on the economic and rational approach.

Proposition 7: FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on the firm's manufacturing technology, production, production, marketing, human resource and/or procurement management. - Strongly Supported.

With production bases located in the USA, Germany, Norway, the UK, China, Hong Kong, Taiwan, Indonesia, Malaysia and Singapore, Wearnes Tech (see **Table 7.5**) is now able to realise the competitive advantages of each "localities" in its diversification of product lines, cost, quality and distribution through the exchange of parts and components produced. For example, with production facilities in *Interconnection Products Incorporated* in the USA and the UK, it is now able to manufacture a wide range of "time-sensitive" and highly specialised connectors for not just the computer industry but also for the telecommunication and aerospace

industries in these two host countries. It is also able to support the MNEs in these industries which have offshore production bases in Southeast Asia from its production subsidiaries in Singapore. From 1990 to mid-1992, Wearnes Tech's component business increased by 16 times.

Wearnes Tech's ability to produce most of its components in-house gives it a procurement and pricing advantage over rival end products manufacturers (e.g. PCs and healthcare kits) which have to rely on international sub-contractors. In the component business, it has benefited from marketing information flowing from its international network of subsidiaries into mould development in Singapore, stamping development in the UK and Germany, and automation in the USA. This allows Wearnes Tech to shorten its product development cycles (see **Section 7.4.4**).

With the globalisation of its component business, in Mr Heugle's view, Wearnes Tech is at least able to convince big and established MNEs (e.g. *IBM, Apple and Siemens*) that it is able to support them not just in Singapore, but also in Ireland, the USA, Norway, the EC and other Asian countries.

In human resource management, Wearnes Tech (like YHS and TPL), has been able to restructure its home production operations due to the shortage of labour in Singapore and move up the technological ladder through relocation of labour-intensive activities from Singapore to the near by Asian countries (e.g. Malaysia and Indonesia). For example, its current production facilities in Singapore are now as capital-intensive as its plants in Western Europe and the USA.

All Wearnes Tech's executives interviewed concur that the parent company has also enhanced its capability in creating new process and product technologies along with that of the overseas companies it acquired. For example, its operations in Singapore has benefited from the transfer of automation skills from its US subsidiaries; stamping skills from its European subsidiaries; and skills in the design of high precision moulds and machine tools from its Chinese subsidiaries.

The benefits of Wearnes Tech's overseas R&D activities can also be seen in the number of new products introduced by its overseas subsidiaries and the international recognition its own brands of PCs had received over the past five years. For example, from 1987 to 1989, its computer series, namely *ALR 386/220* and *ALR Flexcache 25386* won the US-based *PC Magazine's* "Best PC of the Year" and "Technical Excellence" respectively awards at the *Comdex Show* in the USA. Examples of new and patented products which have been introduced by its overseas plants include frequency synthesisers by *Chrontel (USA) Incorporated* and high resolution graphic monitors by *Wearnes Technology (Taiwan) Ltd.* (see **Section 7.4.1**).

In marketing performance, according to Mr Ban, a computer industry analyst with *International Data Corporation* "Wearnes-PCs is already a household name in Singapore, and increasingly in the (Southeast Asian) region" (*Electronics Business Asia*, June 1991, p. 29). It has 30 per cent of the Singapore market share and is competing with *Apple-PCs* for second place (after *IBM*) in sales volume in the island.

Wearnes Group's overseas corporate image has also improved since it

embarked on the FDI route. For example, together with 65 large and well established US, European and Japanese MNEs (see **Appendix 7A**), it was chosen by *The Wall Street Journal* as: "one of the few selected companies of the 90s and beyond that will lead advances in technology, find new ways to make and market products and services, and elevate the science of management to an art".

Wearnes Tech's multinational status has also enhanced its ability to compete with foreign MNEs located in Singapore in attracting talents worldwide. For example, Mr Heugle is a German and some of its product managers and design engineers are Americans and Taiwanese. All of them have managerial experience in running hi-tech MNEs located in North America and Western Europe. By the end of August 1992, in technical manpower resources alone, Wearnes Group has 712 scientists, engineers and technicians engaged in production technology development and research activities worldwide.

Proposition 8: FDI makes a Singaporean MNE more successful in terms of its positive impact on its financial performance.- Partially Supported.

In 1984, Wearnes Tech, the umbrella company for Wearnes Group's Manufacturing and Technology Division began to seek growth through the FDI route (see **Table 7.5**). **Tables 7.2** and **7.3** show that between 1985 and 1990, profit contributions by manufacturing related activities grew at an annual average around 15 per cent. Thus, from 1985 to 1990, these findings suggest that FDI has a positive impact on Wearnes Tech's

financial performance. From 199 to 1992, however, due to the world-wide "shake-up" and "price-wars" in the computer industry and recession in its main overseas markets, these activities had poor financial performance.

In 1992, losses incurred by Wearnes Tech's local subsidiary (e.g. *Microscience International (Singapore) Ltd.* and overseas associated companies (e.g. *Behavioural Tech Engineering (Taiwan) Corporation* and *Systonetics (USA) Corporation*, *Polytex (Hong Kong) Ltd.*) totalled S\$ 45mn.

In other words, it is difficult for Wearnes Tech's executives and this researcher and to conclude convincingly that FDI has a positive or negative impact on its financial performance throughout 1984 to 1992.

7.7 Conclusions and Summary

Unlike MNEs from most developing countries, Wearnes Tech has made a significant amount of investment in manufacturing operations in the developed countries. Currently, two thirds of Wearnes Group's total assets and personnel are located overseas and more than half of these are in the USA. Like MNEs based in the developed countries and which are in the hi-tech industry, Wearnes Tech aims to integrate its production facilities globally.

Today, Wearnes Tech's combined manufacturing facilities in North America, Western Europe, North and Southeast Asia are capable of designing, developing and producing all the components and peripherals of a computer except the fabrication wafers. In addition to the electronics business, its overseas subsidiaries are also engaged in manufacturing of

machine tools, building materials and the development of specialised software for healthcare and agro-technology.

Like most conventional MNEs, Wearnes Tech's FDI activities are also generally motivated by broadly, market-oriented, technology-oriented, cost-oriented and/or resource-oriented objectives. However, these motives differ from those of its counterparts based in the developed countries by their relative importance (see **Figure 7.3**). The primary motives behind its initial direct investment in the USA were "technology-seeking" rather than to gain access to its huge domestic market.

Surprisingly, it is also investing in China to gain technological edge rather than cost advantage. Although these findings confirm the proposition that Wearnes Tech invests in the industrial nations to acquire advanced technology and marketing intelligence, they also suggest that developing countries (e.g. China and Singapore) are also its significant sources of technology.

Unlike most Asian-Pacific-based MNEs (e.g. Korean and Japanese), Wearnes' FDI activities in the EC are not spurred by fears of existing trade protectionism at all. For the last three years, Wearnes Tech is more attracted by the potentially large Chinese market as a result of economic reforms happening there rather than the imminent formation of the Single European Market. It engages in FDI in the latter to be "close its customers" and to gain access to markets which cannot be served by exporting because the products involved are very time-sensitive and highly differentiated.

Analysis of the findings gathered in the fieldwork strongly suggests that

Wearnes Tech's FDI activities had a positive impact on its non-financial operational performance. All its executives regard the Company's business strategy of seeking growth through FDI complements its exporting efforts and is essential to its long term aim of increasing its competitive advantage in the hi-tech industry internationally. For example, there is strong empirical evidence that FDI has significantly enhanced Wearnes Tech's manufacturing, innovation, marketing, and human resource management capabilities. Wearnes Tech's overseas subsidiaries (e.g. *Chrontel Corporation* (USA), *Wearnes Hollingsworth Corporation* (USA), *Interconnection Products* (UK) and *Wearnes Europe GmbH* (Germany)) have enabled it to make time-sensitive and highly specialised products for markets which it had previously been unable to serve by exporting.

Wearnes Tech's FDI also has some spin-offs on Wearnes Group's Singapore-based service-oriented Divisions. Arguably, technical support and procurement from its worldwide component manufacturing subsidiaries have enabled Wearnes Group's Automobiles and Industrial Equipment, and Trading and Distribution Divisions to extend their product lines and offer better after sales services.

Through its international business network, Wearnes Group is also able to set up an international Financial Services and Investments Division. Currently, this Division is helping Asian firms to identify direct investment opportunities in North America and Southeast Asia. It is also providing interested firms with capital ventures for new start-ups in hi-tech industries in the USA.

Empirical evidence gathered in this research suggests that cross-border

acquisition, in Wearnes Tech's experience, is less risky than that suggested in the literature. It considers its corporate strategy of taking an incremental approach particularly in taking an equity stake in its acquired company or in a joint venture entity and in its internationalisation process in general, has contributed to its success in FDI. It also believes that its policies of sending senior executives with multinational operational experience to regularly inspect its overseas operations and employing local managers for subsidiaries in host countries contribute to the success of its FDI operations.

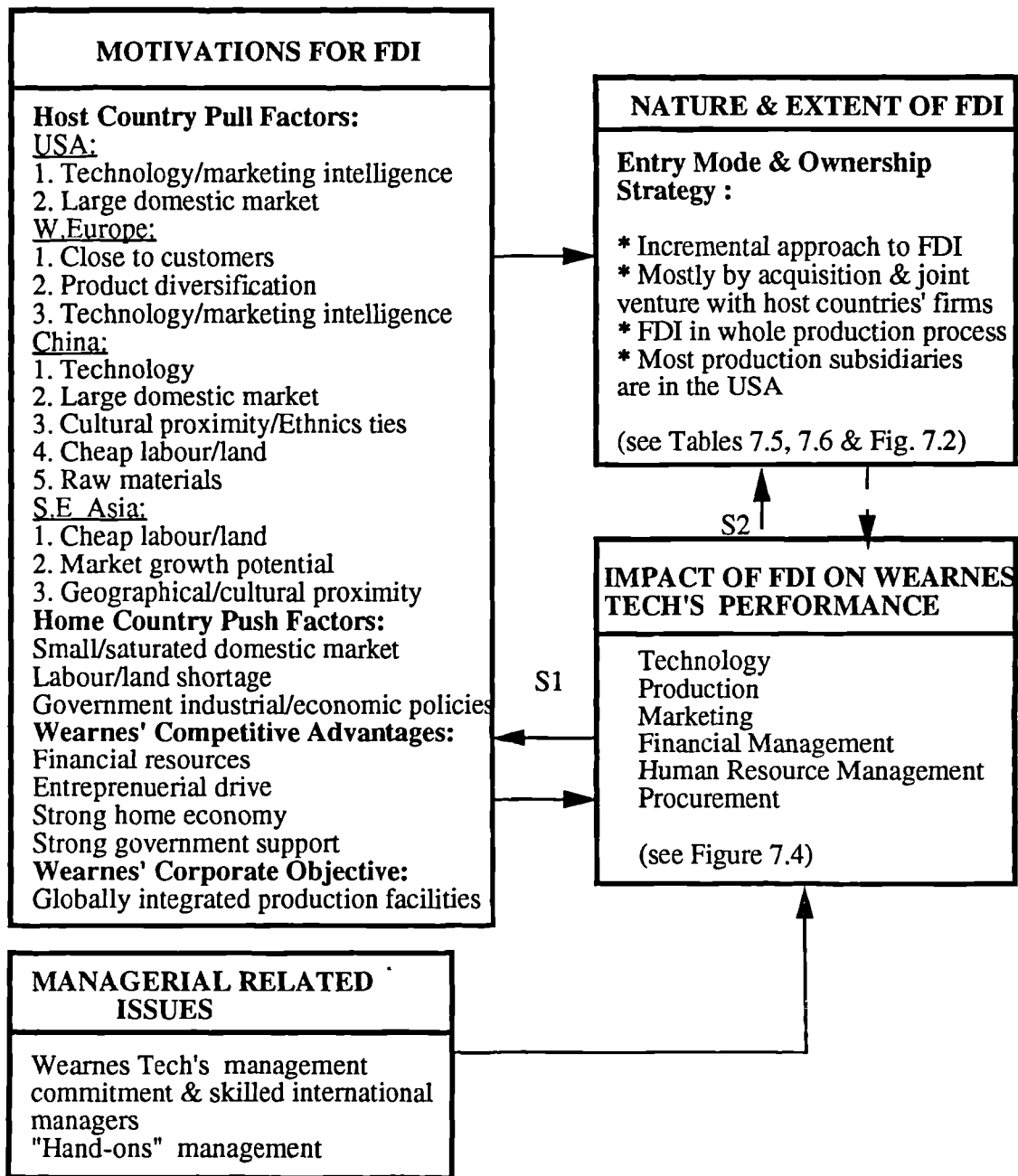
In other words, there is no conclusive evidence that the mode of entry into FDI in itself has a significant impact on Wearnes Tech's performance. However, a multi-plant strategy where manufacturing involves the whole production process appears to be positively correlated to the impact of FDI on its overall operational performance.

Where managerial related issues are concerned, the findings suggest that there is no significant correlation between Wearnes Tech's overseas performance and the amount of preparation it made before it decided to engage in FDI. Based on the fact that it is a new MNE, the positive impact of its FDI activities on its performance also appears to be unrelated to its international business experience. Wearnes Tech attributes the success in its overseas operations to the commitment of the senior managers who pioneered its overseas expansion.

Figure 7.6 shows the interactive and interdependent relationships of motives behind Wearnes Tech's FDI activities, nature and extent of these activities and some related managerial issues. There is strong empirical

evidence that its overseas performance has a significant influence on its subsequent FDI behaviour. For example, Wearnes Tech now aims to integrate its manufacturing, R&D, personnel and marketing management functions globally to further enhance and sustain its competitive advantage as an MNE. Towards this end, the Company is now increasing its presence in Asia and Europe as its initial FDI efforts were mainly aimed at acquiring technology in the USA.

**Figure 7. 6 The Impact of FDI upon Wearnes Tech's Performance:
Major Firm-specific Influencing Factors**



Note: A. Numbers for motivations for FDI denote ranking of importance
B. S1 & S2 refer to subsequent FDI decisions and characteristics

Source: This researcher

Chapter Seven

Notes

1. The Chairman of Wearnes Group, Mr Tang I-Fang was responding to a question by the Business Times on the Group's globalisation strategy on the day he was awarded the "Businessman of the Year-1989".

Appendix 7A

A CENTENNIAL VIEW: COMPANIES TO WATCH in the 1990s

COMPANY (HEADQUARTER)	FOUNDED	CHIEF EXECUTIVE	EMPLOYEE	MAIN BUSINESS
Acer Group (Taipei, Taiwan)	1976	Stan Shih	5,000	Personal Computers
American Superconductor (Cambridge, Mass)	1987	George McKinnery	19	Superconductors
AT & T (New York)	1885	Robert E. Allen	304,500	Telecommunications
Banc One (Columbus, Ohio)	1929	John B. McCoy	16,870	Banking
Ben & Jerry's Homemade (Waterbury, Vt.)	1978	Fred Lager	325	Ice cream
Biospherics (Beltsville, Md)	1967	Gilbert Levin	480	Health & environment technologies
Borneo International Furniture (Inchon, South Korea)	1966	Wee Sang-Sik	3,400	Furniture
BSW Architects (Tulsa, Okla.)	1983	Robert P. Sober David E. Broach Robert C. Workman	100	Architecture
Citicorp (New York)	1812	John S. Reed	90,000	Financial services
Coca-Cola (Atlanta)	1886	Roberto Goizueta	17,000	Soft drinks
Codman Research Group (Lyme, N.H.)	1984	Philip Caper	12	Health-data analysis
Compression Labs (San Jose, Calif.)	1876	John E. Tyson	160	Picture telephone
Corning (Corning, N.Y.)	1851	James R. Houghton	26,300	Glass & ceramics
CS Holding (Zurich, Switzerland)	1856	Rainer E. Gut	15,055	Banking
Daimler-Benz (Stuttgart, Germany)	1886	Edzard Reuter	326,288	Autos & aerospace
DNA Plant Technology (Cinnaminson, N.J.)	1981	Richard Laster	200	Agricultural biotech
Echelon (Los Gatos, California)	1988	M. Kenneth Oshman	45	Automated system
Elders IXL (Melbourne, Australia)	1839	John Elliott	27,000	Brewing, agribusiness
Electricite de France (Paris)	1946	Jean Bergougnoux	123,000	Electric utility
Equifax (Atlanta)	1898	J.V. White	11,000	Information services
Gruppo Ferruzzi (Milan, Italy)	1948	Raul Gardini	75,000	Agribusiness, chemicals
Fujitsu (Tokyo)	1935	Takuma Yamamoto	50,866	Computers, electronics

(continue)

Appendix 7A (continued)

COMPANY HEADQUARTER	FOUNDED	CHIEF EXECUTIVE	EMPLOYEE	MAIN BUSINESS
General Motor (Detroit)	1908	Roger B. Smith	765,700	Autos, defense
Genetics Institute (Cambridge, Mass.)	1980	Gabriel Schmergel	500	Biotechnology
Granada (Huston)	1971	James Eller	2,600	Beef production
GTE (Stamford, Conn.)	1918	James L. Johnson	159,000	Telecommunica- tions
Honda Motor (Tokyo)	1948	Tadashi Kume	60,000	Autos, motorcycles
HSST Corp. (Tokyo)	1985	Akira Hayashi	49	Magnetically- levitated trains
Hyatt (Chicago)	1957	Thomas Pritzker	45,000	Hotels
Imperial Chemical Industries (London)	1926	Denys Henderson	130,400	Chemicals
Institut Pasteur (Paris)	1887	Maxime Schwartz	1,800	Biological research
Intel (Santa Clara, Calif.)	1968	Andrew S. Grove	20,800	Semiconductors
IBM (Armonk, N.Y.)	1911	John Akers	387,000	Computers
Inteerpublic Group (New York)	1930	Philip H. Geier Jr.	14,000	Advertising
Johnson & Johnson (New Brunswick, N.J.)	1886	Ralph S. Larsen	81,300	Health-care products
Judicate (Philadelphia)	1983	JAY D. Seid	26	Private court system
Kurzweil Applied Intelligence (Waltham, Mass.)	1982	Raymond Kurzweil	89	Speech- recognition devices
McCaw Cellular (Kirkland, Wash.)	1982	Craig O. McCaw	2,700	Cellular phones
Merck (Rahway, N.J.)	1891	P. Roy Vagelos	32,000	Pharmaceuticals
MIPS Computer Systems (Sunnyvale, Calif.)	1984	Robert C. Miller	370	Computer products
Motorola (Schaumburg, Ill.)	1928	George Fisher	102,000	Electronics
Mrs. Gooch's Natural Foods (Sherman Oaks, Calif.)	1977	John Moorman	670	Food retailer
NCNB (Charlotte, N.C.)	1874	Hugh L. McColl Jr.	28,000	Banking
Nestor (Providence, R.I.)	1975	Michael G. Buffa	31	Neural-network computers
News Corp. (Sydney, Australia)	1923	Rupert Murdoch	28,000	Media, entertainment
Next (Palo Alto, Calif.)	1985	Steven P. Jobs	250	Computers
Nippon Life Insurance (Tokyo)	1889	Gentaro Kawase	91,700	Life insurance

(continue)

Appendix 7A (continued)

COMPANY (HEADQUARTER)	FOUNDED	CHIEF EXECUTIVE	EMPLOYEE	MAIN BUSINESS
Northfield Laboratories (Evanston, Ill.)	1985	Richard DeWoskin	23	Medical research
Northrop (Los Angeles)	1939	Thomas V. Jones	44,000	Defense contracting
Nucor (Charlotte, N.C.)	1955	F. Kenneth Iverson	5,100	Steel
Procter & Gamble (Cincinnati)	1837	John G. Smale	77,000	Consumer products
Prodigy Services (White Plains, N.Y.)	1984	TEd Papes	1,100	Interactive computing
Servicemaster (Downers Grove, Ill.)	1947	C. William Pollard	17,000	Health care, cleaning
Skadden, Arps, slate, Mergher & Flom (New York)	1948	Peter Mullen	3,270	Law
Sumitomo Electric (Osaka)	1911	Tetsuro Kawakami	13,386	Wires, cables
Sun Microsystems (Mountain view, Calif.)	1982	Scott McNealy	10,000	Workstations
Thinking Machines (Cambridge, Mass.)	1983	Sheryl Handler	280	Computers
Tokos Medical (Santa Ana, Calif.)	1984	Robert Byrnes	900	Medical services
Upjohn (Kalamazoo, Mich.)	1886	Theodore Cooper	21,000	Pharmaceuticals
U S West (Denver)	1984	Jack MacAllister	57,500	Telecommunica- tions
VeriFone (Readwood City, Calif.)	1983	Hatim Tyabji	300	Credit card verification
Walt Disney (Burbank, Calif.)	1923	Michael Eisner	39,700	Entertainment
Wasserstein Perella (New York)	1968	Bruce Wasserstein	175	Investment bank
Waste Management (Oak brook, Ill.)	1968	Dean L. Buntrock	36,000	Waste
Wearne Brothers (Singapore)	1912	Tang I-Fang	n.a.	Manufacturing
Wheelabrator Technologies (Danvers, Mass.)	1987	Paul M. Montrone	9,700	Trash-to-energy plants

Source: *The Wall Street Journal, Centennial Edition*, Vol CXX No. 1220 23rd June 1989, p. A3

CHAPTER EIGHT

CASE STUDY COMPANY: TIMES PUBLISHING LIMITED

8.1 Company Background

On 7 March 1968, Times Publishing Limited (TPL) was incorporated in Singapore under the name of *Times Publishing Sdn. Bhd. (Times)* as a private limited company and wholly-owned subsidiary of a state-owned enterprise, *The Straits Times Press Limited*. They were both engaged in the newspaper publishing and printing business. However, in 1975, both *Times* and its parent firm were reorganised to form two independent public companies and the former changed its name to *Times Publishing Bhd. (TPB)* with publishing and printing of materials which were not related to the local newspaper business forming its main business activities.

In 1984, hoping to achieve economies of scale in its printing and distribution operations, *TPB* merged with *Straits Times Press Limited* and *Singapore News and Publications Limited* to form *Singapore Press Holdings Limited (SPH Group)*. After the merger, however, a rationalisation of activities within the *SPH Group* led to the development of two distinct categories of core activities under informally organised clusters of companies, namely, the “Times Group” and the “Singapore Press Group”. These were:

(i) the publishing, printing and distribution of newspapers for the local market under the “Singapore Press Group” and

(ii) the publishing, printing and marketing of materials and audio-visual products not related to the newspaper business for international and domestic markets as well as the organisation of educational programmes, conferences and travel under “Times Group”.

On 2 September 1988, these two groups of companies decided to separate and two public companies listed on the Singapore Stock Exchange because they discovered that each set of the above stated activities required different business strategies. After the demerger, the “Times Group” adopted its present name, *Times Publishing Limited* (TPL). Since its listing, TPL has adopted a divisional structure:

- (i) Publishing Division;
- (ii) Commercial Printing Division;
- (iii) Marketing and Distribution Division, and
- (iv) Investment Holding/Others Division.

In terms of sales turnover, TPL is the largest publishing and printing company in Singapore (see **Appendix 5A, Chapter 5**). **Table 8.1** shows that from 1985 to 1991, it enjoyed steady sales growth and favourable financial performance. However, in 1992, its profits declined by around 20 per cent compared to the previous year because of poor financial performance of its subsidiaries in the UK and the US. **Tables 8.2 and 8.3** show TPL's annual turnover and profit contributions by Division and geographical location respectively.

Table 8.1 TPL's Financial Performance, 1985-1992 (S\$ Million)

Year	1992	1991	1990	1989	1988	1987	1986	1985
Sales Turnover	494.7	535.4	618.7	562.3	537.0	475.5	449.7	409.8
Pre-tax Profits	40.1	49.8	45.6	38.4	27.9	33.8	31.3	36.5

Note: Figures for 1985 to 1987 are extrapolated annually from proforma statement. For 1988 to 1992, actual figures are given because the TPL Group only became a public company in 1988.

Sources: *Company Annual Reports* (various years), *Singapore Handbook of Companies* (1992) and *The Straits Times Overseas Weekly Edition*, November 28 1992.

Table 8.2 TPL's Profits (Loss) by Division, 1988-1992 (S\$ Million)

Activity	1992	1991	1990	1989	1988
Publishing	4.9	7.3	9.9	10.4	(2.7)
Commercial Printing	9.5	8.0	10.3	10.7	10.4
Marketing and Distribution	15.4	18.7	12.6	13.4	22.0
Investment Holding/Others	11.3	15.8	12.8	4.0	(1.1)

Note: In 1988, TPL was reorganised after it separated from *SPH*. Figures for the period before 1988 are, therefore, not included because they are not comparable. In 1988, as a result of the demerger, profits transferred to *SPH* totalled S\$1.1mn.

Source: *Company Annual Report* (various years).

**Table 8.3 TPL's Turnover by Geographical Location, 1988-1992
(Percentage Distribution)**

Year	1992	1991	1990	1989	1988
Per cent (%)					
Singapore	31.3	30.6	28.4	29.8	27.2
Asia*/Australia	35.8	27.7	21.9	19.5	21.3
Europe/USA	34.9	41.7	49.8	50.7	51.0

* Excluding Singapore

Note: In 1988, TPL was reorganised after its separation from SPH. Figures for the period before 1988 are, therefore, not included because they are not comparable.

Sources: *Company Annual Reports* (various years), *Singapore Handbook of Companies* and Singapore Registry of Companies.

Currently, the materials TPL prints and distributes can be broadly classified as follows:

(i) time-sensitive and high volume print runs such as international periodicals (e.g. *Asia Business*, *Asiaweek*, *Electronics World News*, *Far Eastern Economic Review*, *Fortune*, *International Management*, *Newsweek*, *The Economist* and *Time*);

(ii) small to medium volume prints such as textbooks, literary works and reference books for international publishers (e.g. *Collins*, *CMP Inc.*, *COMAG*, *DC Thomson*, *EMAP*, *Hodder & Stoughton*, *McGraw-Hill*, *Mills and Boon*, *Pan-European Publishers*, *Prentice-Hall*, *Penguin*, *Reed Internatinal* and *Oxford University Press*);

(iii) small volume print runs such as publicity materials for large Singaporean corporate organisations (e.g. Singapore Airlines, Singapore

Ministry of Defence, Singapore Ministry of Information and Arts, Singapore Telecommunications and Singapore Tourist Promotion Board).

8.2 Nature and Extent of TPL 's FDI

Between the 1970s and mid-1980s, TPL's growth was very much export-led. Exports account for two thirds of its total sales turnover world-wide and 90 per cent of its total output in Singapore. However, during the last five years, it has been seeking expansion and product diversification through overseas direct investment.

8.2.1 Geographical Distribution of TPL's Employees, Assets and Subsidiaries

At the end of August 1992, around three quarters of TPL's total work-force of 2300 employees (see **Table 8.4**) were based overseas. Slightly more than half of its total assets of S\$650mn. were also located abroad (see **Table 8.5**). It now has 38 active subsidiaries and located in nine countries, namely, Australia, Germany, Hong Kong, Indonesia, Japan, Malaysia, Thailand, the UK and the USA engaged in the printing and publishing business. **Table 8.6** shows TPL's FDI by geographical distribution and principal activities

In line with the objectives of this research, this study focuses only on TPL's cross-border investments in the printing and publishing industry and those operational activities related to this industry by locations.

Table 8.4 Number of Employees in TPL's Major Subsidiary by Countries (as at end of August 1992)

Country	Number of Employees
Singapore	700
Malaysia	450
Hong Kong	400
United Kingdom	120

Sources. Personal Interviews

Table 8.5 TPL Group's Total Assets Employed by Geographical Location, 1988-1992 (S\$ Million)

Year	Singapore	Asia*/Australia	Europe/USA
1992	330.5	190.8	140.5
1991	326.2	114.7	148.7
1990	334.3	106.7	171.9
1989	327.2	95.1	162.2
1988	310.5	68.3	179.3

Note: In 1988, after the demerger, assets of companies transferred to *SPH* totalled S\$83.8mn.

Sources: *Company Annual Report* (various years).

8.2.2 Business Strategy and Geographical Locations

According to Mr Ang, Group Senior Vice President, International Commercial Printing, because most time-based publications (e.g. weekly periodicals, quarterly catalogues and directories) are "highly perishable goods, there is a lot of "duplication of effort" among TPL's international network of manufacturing subsidiaries. For example, all its printing facilities in Hong Kong, Singapore and the UK are equipped with similar web and sheetfed offset presses as well as a comprehensive range of bindery and finishing equipment to produce high quality and large volume print runs. To expedite delivery of its products, all these printing bases also undertake the distribution functions for its clients (i.e. international publishers).

There is, however, less duplication of effort among TPL's international marketing and publishing operations because each subsidiary tends to focus on a specialised market niche. For example, *Times Editions Limited* in Singapore focuses on marketing and publishing of non-fiction books on Asian lifestyles, and publicity materials for large Singaporean-owned corporations and statutory boards. On the other hand, *Marshall Cavendish Group* (see **Table 8.6**) in the UK and Australia specialise in publishing fiction books for the UK, Germany, Italy, France and Holland. The following sections provide further details of TPL's activities in (i) Asia, (ii) Europe and (iii) the USA.

(i) Asia

Within this region, TPL has subsidiaries in Hong Kong, Malaysia, Indonesia, Thailand and Japan engaged in printing, publishing, distribution

Table 8.6 Times Publishing Limited's Overseas Subsidiaries by Geographical Distribution and Activities
(as at end August 1992)

Location / Name of Subsidiary	Year	Equity (%)	Principal Activities
A. UK			
1. <i>Marshall Cavendish Ltd.</i>	1980	100	Investment holding
2. <i>Marshall Cavendish International Ltd.</i>	1980	100	Distribution of partworks
3. <i>Marshall Cavendish Partworks Ltd.</i>	1980	100	Design, publishing and marketing of partworks
4. <i>Marshall Cavendish Services Ltd.</i>	1980	100	Manufacture and marketing of leaf binders @
5. <i>Hazeldean Ltd.</i>	1983	100	Property investment
6. <i>ALP Ltd.</i>	1988	100	Investment holding
7. <i>TPL Printers (UK) Ltd.</i>	1990	100	Commercial printing and distribution of journals, magazines and books
B. Germany			
1. <i>Sammetwerk Redaktions Services GmbH</i>	1990	100	* Distribution and marketing of partworks

@ In August 1991, the production facilities for binders were moved to *TPL Printers (UK)* in Kidderminster.

* In November 1992, the Editorial Office was closed and transferred to the *TPL Printers (UK)*

(continue)

Table 8.6 (continued)

Location / Name of Subsidiary	Year	Equity (%)	Principal Activities
C. USA			
1. <i>Lirve Enterprise Inc.</i>	1980	100	Investment holding
2. <i>Marshall Cavendish Corp.</i>	1980	100	Marketing and sales of reference and children's books
3. <i>H.S. Stuttman Inc.</i>	1982	100	Marketing and sales of multi-volume reference books and continuity sets by direct mail
4. <i>Webster's United Inc.</i>	1984	100	Marketing and sales of reference materials
D. Australia			
1. <i>Times Enterprise (A) Pty Ltd.</i>	1985	100	Investment holding
2. <i>Marshall Cavendish Pty Ltd.</i>	1985	100	Marketing and sales of partworks
3. <i>A.H. & A.W. Reed Pty Ltd.</i>	1985	100	Investment holding
4. <i>Rainbow Products Ltd.</i>	1987	100	Marketing and sales of records, cassettes and videos
5. <i>Musicway Corporation Ltd.</i>	1988	100	Marketing and sales of cassettes and hi-fi accessories
6. <i>Times Consultants Pty Ltd.</i>	1988	100	Investment holding

(continue)

Table 8.6 (continued)

Location / Name of Subsidiary	Year	Equity (%)	Principal Activities
E. Japan			
1. <i>United Publishers Services Ltd.</i>	1988	100	Marketing and sales of English-language books to libraries and tertiary institutions
2. <i>Kakushiki Kaisha Union Enterprises</i>	1989	100	Marketing and sales of academic books
F. Hong Kong			
1. <i>Far East Trade Press Ltd.</i>	1986	100	Publishing and marketing of magazines
2. <i>Far East Publications Ltd.</i>	1986	100	Publishing and marketing of books
3. <i>Far East Trade Press Business Publications Ltd.</i>	1986	100	Publishing and distribution of directories
4. <i>Educational Association Ltd.</i>	1987	100	Investment holding
5. <i>Federal Publications Ltd.</i>	1987	100	Publishing and distribution of books and magazines
6. <i>United Publication Services Ltd.</i>	1987	100	Publishing and distribution of books
7. <i>Times-Ringer (HK) Ltd.</i>	1988	50	Commercial printing of journals, magazines, directories and books
8. <i>British Book Distributors (Japan) Ltd.</i>	1989	60	Commission agent

(continue)

Table 8.6 (continued)

Location / Name of Subsidiary	Year	Equity (%)	Principal Activities
G. Malaysia			
1. <i>Federal Publications Sdn. Bhd.</i>	1985	100	Publishing and marketing of textbooks
2. <i>Eastern Universities Press Sdn. Bhd.</i>	1985	60	Dormant
3. <i>United Publishers Services (M) Sdn. Bhd.</i>	1985	100	Dormant
4. <i>STP Distributors (M) Sdn. Bhd.</i>	1988	25	Marketing and distribution of reference books and linguaphone
5. <i>Times The Bookshop Pte. Ltd.</i>	1990	100	Retailing of books
6. <i>Times Offset (M) Sdn. Bhd.</i>	1990	70	Commercial printing of books, directories, journals and magazines
H. Thailand			
1. <i>Far East Publications Ltd.</i>	1988	100	Publishing and marketing of English-language academic books
I. Indonesia			
1. <i>P.T. Times The Book Shop</i>	1989	60	Retailing of books, magazines and journals

Sources: Personal interviews, *Company Annual Reports* (various years) and *Singapore Handbook of Companies*. (1992).

and/or retailing of books, periodicals, magazines, catalogues and directories.

In Hong Kong, TPL has altogether six publishing and marketing subsidiaries, and one manufacturing subsidiary located (Table 8.6). The publications printed and distributed by *Times-Ringier (HK) Limited* include *Asian Business*, *Fortune International*, *Travelnews Asia*, *Cargonews Asia*, *Architect and Designers Catalogue*, *Contractors' Plant and Equipment Catalogue* and the *Hong Kong Builder Directory*. These periodicals and catalogues are mainly targeted at English-language readers in China, Hong Kong, Japan, South Korea and Taiwan.

In 1989, *Times-Ringier (HK) Limited*, a 50:50 joint venture with Switzerland-based *Ringier A.G.* and established in 1987, began its commercial printing operations in Hong Kong. In addition to the English-language publications mentioned earlier, this factory also specialises in the printing of high quality, time-sensitive magazines and periodicals such as *Yazhou Zhoukan* and *Asiaweek*, for Chinese language readers in Northeast Asia and *Ming Pao*, a weekly tabloid for the domestic market.

In Malaysia, TPL has three marketing and publishing subsidiaries, and one production plant involved in commercial printing, publishing, and retailing of books, periodicals and partworks. It is also the major local supplier of books under the *World Bank Reading Programme*. Its subsidiary, *Federal Publications Sdn. Bhd.* is the leading publisher of computer books, textbook and dictionaries in the Malay, Chinese and English languages. Almost all of these publications are printed in Malaysia by its subsidiary, *Times Offset (Malaysia) Sdn. Bhd.* In 1991, TPL established

these printing facilities at S\$24mn. with a 30 percent equity participation from Malaysia-based investment institution, *Urusan dan Tabung Haji*. Currently, this production subsidiary also exports around 80 percent of its total output to Australia, Japan, the UK and the US.

In Indonesia, Thailand and Japan, TPL has only marketing and distribution subsidiaries for its publications and around 150 other publishers worldwide. These publishers include *Cambridge University Press, Edward Elgar, Oxford University Press, Routledge Gale Research, Wiley and Sons, Garland Publishing and Hearst Books International*. In these countries, TPL markets English-language academic books printed in their sisters companies in Malaysia, Hong Kong and Singapore mainly to their local libraries and tertiary institutions

(ii) Europe

Currently, TPL has one marketing and publishing subsidiary, *Sammelwerk Redaktions Service GmbH.*, in Germany as well as four marketing and publishing subsidiaries and one manufacturing plant in the UK (see **Table 8.6**).

In 1979, TPL established its first subsidiary in the UK by acquiring publishing company, *Marshall Cavendish Group* to publish and sell partworks and books targeted mainly at the UK market. It also exports these publications to France, Germany and Holland. These publications are mostly printed in *TPL- Printers (UK) Limited (TPL-UK)*.

In 1990, TPL set up its first UK production subsidiary, *TPL-UK*, on a 4 hectare site in Kidderminster when it acquired the assets of UK-based

printing firm *Hartlebury Limited*. Like its parent printing plant in Singapore, *Times Printers Offset* in Singapore, *TPL-UK* is now equipped with web and sheetfed-offset presses as well as a comprehensive range of bindery and finishing equipment. The plant specialises in the printing of high quality magazines, news periodicals (e.g. *Newsweek*, *Fortune*, *Time* and *The Economist*) and catalogues for the UK market.

According to Mr Ang, although TPL can also utilise its manufacturing facilities in the UK to print academic publications for its clients (e.g. *McGraw-Hill* and *Prentice-Hall*, *Oxford University Press* and *Routledge*) it is still more cost effective for the Company to print them in its factories in Hong Kong, Malaysia and Singapore.

(iii) The USA

In the USA, TPL's marketing subsidiary, *Marshall Cavendish Corporation* sells reference and educational books printed in its plants in Singapore and Malaysia to public libraries, schools and colleges in the US, Canada and Australia. Another US marketing subsidiary, *HS. Stuttman Incorporated*, sells multi-volume reference books and continuity sets by direct mail to the American readers. These materials are printed in TPL's manufacturing bases in Malaysia, *Times Offset Sdn. Bhd.*

8.2.3 Entry Mode, Ownership Strategy and Trends

Like YHS and Wearnes Tech (Chapters 6 and 7), TPL's internationalisation process generally follows the "stages of development approach" (Welch and Luostarinen, 1988; Kogut, 1983 and Johanson and Vahlne, 1977). In Mr Ang words, this incremental approach to FDI is a precautionary measure as it allows TPL "to have a good feel of the market" Similarly, TPL also generally prefers to enter FDI via acquisition or joint ventures rather than by greenfield investment. Indeed, the Company's top management also feels that these modes of entry are quick and in its experience, safer than that suggested in the literature (e.g. Li and Guisinger, 1991; Kogut, 1988 and Beamish, 1986).

Like YHS, and unlike Wearnes, it is not TPL's policy to take an incremental approach to acquiring a stake in a target company or seek partnership with firms based in the host country. For example, *Times-Ringier Limited* in Hong Kong was formed with a 50 per cent participation from Switzerzland-based printing and publishing firm, *Ringier A.G.* *TPL-UK* was formed when TPL took 100 per cent ownership of *Hastlebury Limited*.

In Mr Ang's words, the relationship TPL is enjoying with its Swiss partner, *Ringier A. G.*, in its Hong Kong subsidiary, *Times-Ringier Limited*, "is simply brilliant and we hope to replicate this success in other overseas ventures whenever there is an opportunity". Despite the uncertainty over Hong Kong's future after its imminent "*political unity*" with China in 1997, Mr Ang envisages that in five to seven years' time, TPL's production capacity in Hong Kong (which serves the Northeast Asian markets) will

probably exceed the combined capacity of its factories in Singapore and Malaysia.

The following section analyses the motivations behind TPL's cross-border direct investments by countries.

8.3 TPL 's Motivations For FDI

TPL has a corporate mission statement which clearly reflects its international ambition. For example, it aims:

"To be a global printer and a major force in the printing and publishing industry".

Mr Ricky Ang, Senior Vice President, International Commercial Operations.

Mr Ang revealed that by the late 1990s, TPL wants to establish integrated manufacturing bases in at least these continents: (i) Asia (ii) Europe and (iii) North America.

Like YHS (see **Chapter 6**), but unlike Wearnes Tech (see **Chapter 7**) and the majority of the NIEs in general (The World Bank, 1989; Kwag 1987 and McDermott, 1991), TPL does not invest in developed countries (e.g. the UK and the USA) to acquire advanced technology or marketing intelligence.

According to Mr Chew Heng Ching, the Group Senior Vice President, Human Resource and Corporate Planning, to keep abreast of new process technologies, TPL participates in international machinery and equipment

trade fairs and sends its production staff for training to internationally reputable printing colleges (e.g. London College of Printing).

Over the last ten years, TPL has been engaging in FDI, in Ms Shirley Hew's words, the Group Vice President, International Publishing, "to carve out new businesses". Overall, even in developing countries, its prime motives for FDI are market-oriented. **Figure 8.1** outlines TPL's motives for FDI and the following sections give further details of these motives by geographical locations.

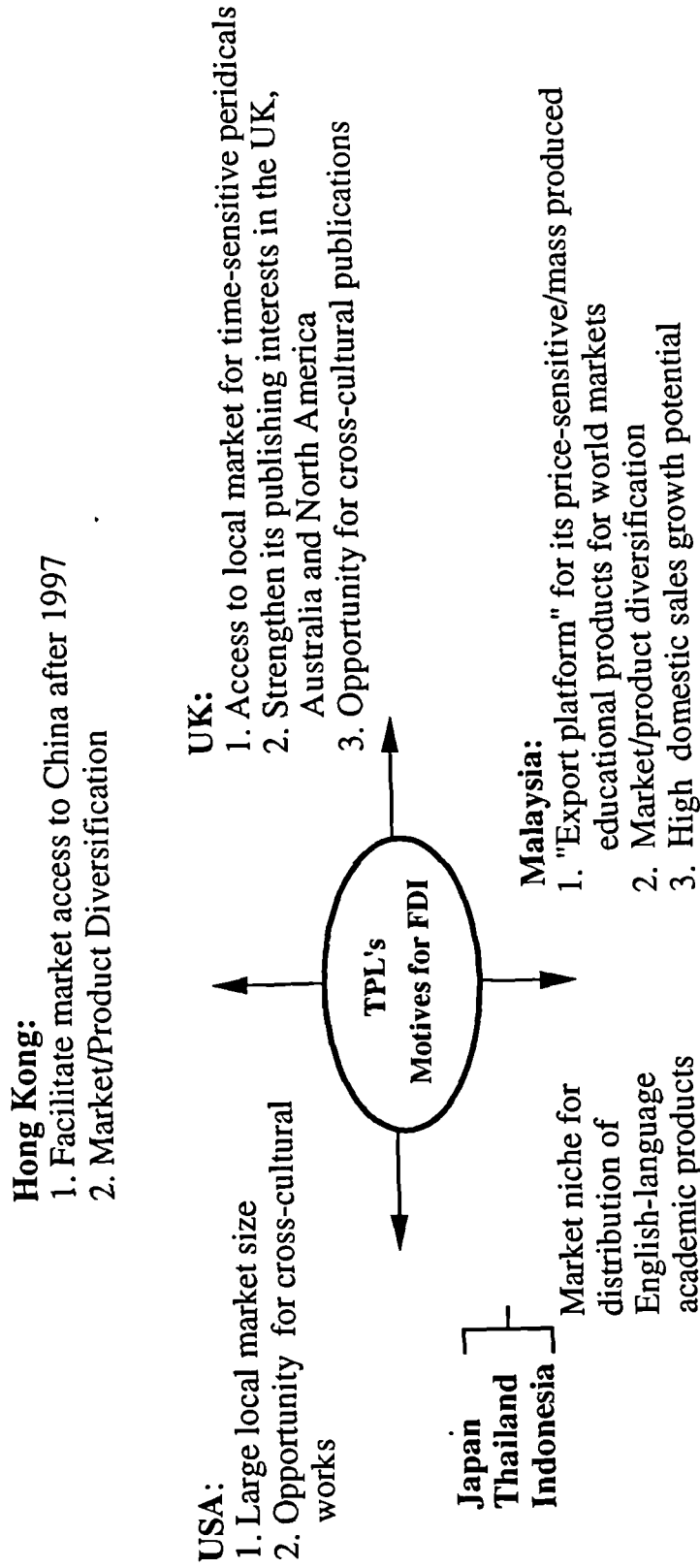
(i) Hong Kong

In 1988, TPL established its first overseas printing facilities in Hong Kong (at HK\$ 75mn.) to gain a strategic foothold in the potentially huge Chinese market and to reduce its "market dependency" on Europe and the USA (see **Table 8.3**). It is TPL's top management belief that having a manufacturing presence in the colony before its "political unity" with China in 1997 would facilitate its market access into the mainland and improve its distribution services for international periodicals printed in Hong Kong to Taiwan, Japan and south Korea. Indeed, if the Chinese government continues its economic reforms and further relaxes its restrictions on foreign publications, TPL is optimistic that Northeast Asian markets may replace both the USA and Europe to become its biggest market by the year 2000.

(ii) Malaysia

Until 1988, Singapore was TPL's only manufacturing and export base for high volume prints run or price-sensitive mass produced books (e.g. textbooks) to Western countries. However, according to all executives

Figure 8.1 TPL's Prime Motives for FDI by Locations



Source: Personal interviews

interviewed, by the mid-1990s, Singapore is likely to lose its cost advantage by at least 10 to 15 per cent to East Asian countries such as Malaysia and Thailand. TPL is also confident that the high economic growth rates these Asian countries are enjoying will continue throughout the 1990s.

According to Mr Ang, in 1990 when TPL set up its printing plant in Malaysia, its market was only one tenth the size of the Singapore market although its population base was around seven times that of the Republic's. However, it anticipates that by the mid-1990s, the market for reading materials in the English, Malay and Chinese languages in Malaysia will rise by at least five fold over the 1990 level. Thus, TPL aims to:

- (a) gain a strategic foothold in the expanding Malaysian market for its Malay, English and Chinese-language publications,
- (b) use *Times Offset Sdn. Bhd.* as an "export platform" for mass printed and price-sensitive educational products to TPL's main markets such as the USA and the EC and
- (c) diversify into new product lines (e.g. the Malay-language publications).

In other words, TPL established manufacturing facilities in Malaysia for both cost- reductions and market-oriented reasons. Currently, nearly 80 percent of its English-language books printed in Malaysia are exported to Europe, Japan and the US. In five years' time, Mr Ang reckons the Malaysian market will be able to consume at least 50 per cent of its total output in Malaysia.

(iii) Japan, Thailand and Indonesia

When asked about TPL's motives for direct investment in Japan, Thailand and Indonesia, Mr Ang replied, "We see no strategic fit in our operations in these countries because of language barriers. Our marketing subsidiaries for English-language academic publications are established there purely for profit-oriented reasons". In other words, TPL's top management team does not think having manufacturing and publishing facilities in these countries will significantly help it to achieve its corporate mission, that is "To be global printer and a major force in the printing industry". For example, although the Japanese are avid readers, TPL faces difficulty in clinching lucrative printing and distribution contracts from Japanese-language publishers for "coffee-table materials" such as local periodicals and "lifestyles" magazines. It is, however, representing around 150 English-language publishers in Japan.

Similarly, in Thailand and Indonesia, TPL has a niche only in the marketing of educational products in the English-language to local tertiary institutions and libraries. Despite its significant "marketing presence" (e.g. it has a sales force of around 150 in Thailand itself), TPL is not attracted by cheap labour in these countries because it has automated most of its printing processes for these products. Moreover, because of economies of scale, it is still more cost effective to centralise the production of textbooks in its plant in Malaysia and serve these markets through exports .

(ii) The UK

The formation of the Single European Market (SEM) has no catalytic effect on TPL's recent decision to set up manufacturing facilities in the UK. In 1990, according to Mr Ang, TPL decided to establish *TPL Printers*

(UK) Limited in Kidderminster primarily because it was the only means by which it could undertake the printing of highly time-sensitive periodicals such as *Newsweek*, *The Economist* and *Time* for its the British market. Like YHS and Wearnes Tech, it is also adopting the “wait-and-see” approach to the opportunities/threats of SEM. For example, in future if it faces trade barriers in exporting its price-sensitive and less time-sensitive products (e.g. textbooks), TPL may then consider using its UK printing facilities, to quote Mr Ang, "as a springboard to the EC market".

On the whole, TPL's decision to establish a printing plant in the UK was also influenced by :

- (a) its successful printing operations in Hong Kong,
- (b) its substantial publishing and distribution network in the UK (i.e. through its the *Marshall Cavendish Group*),
- (c) its substantial publishing presence in the UK,
- (d) the appreciation of the Singapore dollar against the Sterling pound,
- (e) the attractive take-over offer by the target company, *Hastlebury Limited* (e.g. 30% below the price the TPL's top management team was prepared to pay to for the acquisition - but exact amount was not disclosed to this researcher) and
- (f) the Singapore government's outward investment incentives (e.g. tax concessions and feasibility studies grant (see **Chapter 4**)).

(iii) The USA

In 1986, TPL established its marketing and publishing subsidiaries in the USA to support its exports of academic and reference books printed in its Singapore plants. However, over the last three years, postal rate hikes in Singapore had eroded some of the cost advantages of importing from

Singapore. Currently, these US operations are there mainly to support the sales of materials which are printed by its subsidiary in Malaysia.

Mr Ang revealed that in December 1991, TPL "came close to acquiring" a printing plant in the USA. The investment decision was abandoned simply because the take-over bid was too high. However, Mr Ang said, "It is a matter of time before we get the right price for an acquisition or find a suitable partner to share the risks with us". By having its own manufacturing facilities in the USA, TPL believes it will be able to win big printing and distribution contracts for time-sensitive periodicals for the US market. At the moment, it can only sell academic and reference books to the US colleges and public libraries.

8.3.1 Other Influencing Factors

Like Wearnes Tech's and YHS, TPL's investment decisions and choice of location site were not influenced by host country financial incentives. However, all senior executives interviewed concurred that its overseas expansion can also be attributed to the outward and forward looking personalities of the TPL's Chief Executive, Mr Kua Hong Pak and Director, Mr Michael Fam. Mr Ang even thinks that, "With senior executives like them, any Singaporean firm is likely to become multinational whenever it has the financial muscles to do so!".

Arguably, the entrepreneurial spirit of TPL's top executives, besides its corporate strategic objectives, has a significant influence on the its FDI decisions and characteristics. Overall, especially over the last five years, its overseas expansion via the FDI route has also been influenced by the

appreciation of the Singapore dollar against all major currencies (see **Chapter 4**).

The following sections analyse the impact of FDI on the TPL from the parent company's perspective.

8.4 Impact of FDI on TPL 's Performance

For the last two consecutive years, like Wearnes Tech and YHS, TPL suffered a fall in its profit margins because of the poor financial performance of its overseas subsidiaries (**Table 8.1**). However, all executives interviewed argued the parent company has benefited from its FDI in technical and marketing terms. The challenge now is for management to translate these gains into long-term overall profit gains.

Figures 8.2 and 8.3 summarise the impact of the impact of FDI upon TPL's performance in financial, technology and production, marketing, human resource management and procurement management.

8.4.1 Financial Management

Table 8.3 shows that in 1988, the US and European markets account for around half of TPL's total sales compared to a third in 1992. Arguably, the Company's global strategy (i.e. having FDI in its major markets in Asia, Europe and the USA) has enabled it to reduce the financial risks of being overly dependent on one or two major markets (Krueger, 1985 and Hirschman, 1980). The following discusses the financial performance of its major subsidiaries.

Figure 8.2 Impact of FDI upon TPL's Performance

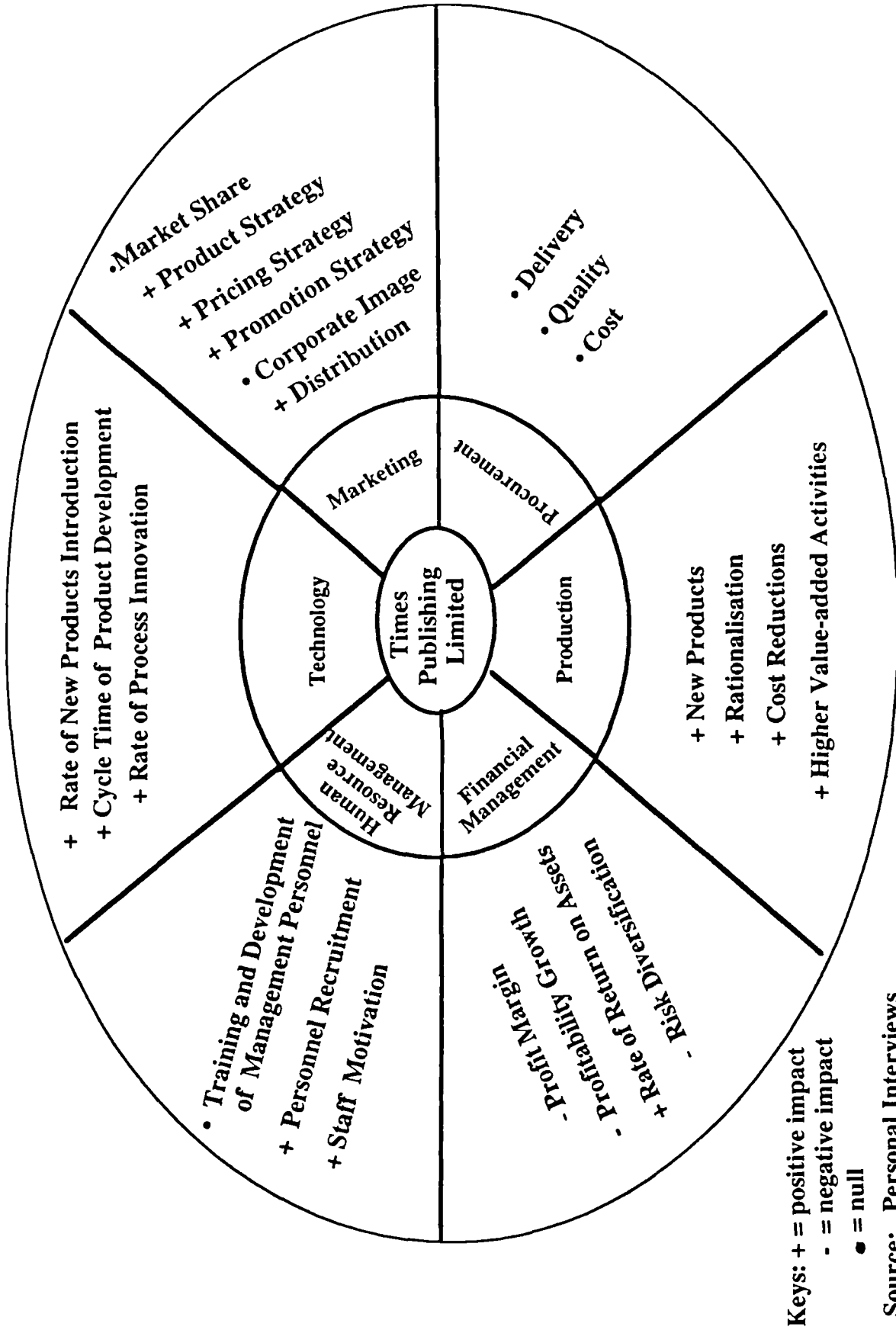


Figure 8.3 Impact of FDI on TPL's Performance: Degree of Importance

	Qualitative	Quantitative
<i>Most Significant Benefits</i>	Market/Product diversification Rate of introduction of new products (e.g. cross-cultural publications) Rate of innovation of production process	Increase in production volume
<i>Fairly Significant Benefits</i>	Distribution - Forward vertical integration Risk diversification Flow of marketing information	Cost reductions (e.g savings from rationalisation of administrative, marketing and publishing activities overseas) Sales turnover (1985-1991) Profitability (1988-1991)
<i>Insignificant or No Impact</i>	Management development and training Corporate image Market share	
<i>Significant Negative Impact</i>		Profit Margins
<i>Fairly Significant Negative Impact</i>		Sales turnover (1991-1992) Profitability (1985-1988) & (1991-1992)

Sources: Personal interviews, *Company Annual Reports*, *Business Times*, *Singapore Handbook of Companies* (various years).

Table 8.1 shows that from 1991 to 1992, TPL's pre-tax profits fell by around 22 per cent from S\$50mn. to S\$40 mn. Over that period, its turnover decreased by nearly 8 per cent to S\$ 494.7mn. and net profits dropped by 30.4 percent to S\$25mn. Mr Ang revealed that the bulk of this decline in turnover and profits was from subsidiaries in the UK and the USA.

In the UK, its publishing and marketing subsidiaries under the *Marshall Cavendish Group* "suffered from very depressed market conditions, compounded by the lack of successful new partwork launches", explained Mr Ang. He added that *TPL-UK* faced a severe margin squeeze as its prices had to be reduced significantly because its clients were cutting their publishing programmes and reducing their print runs.

In November 1992, TPL had to close its editorial offices in Germany and Australia, and retrenched some of its staff in the UK because of the recession in these countries. This "downsizing exercise" alone cost the Company S\$6.1mn.

On its US operations, Mr Ang said that *HS Stuttman Inc.* suffered from poor consumer spending. However, he is optimistic that the economic conditions will improve soon. Thus, despite having poor financial returns in the USA, TPL is still planning to establish its own production facilities in the USA to print time-sensitive international periodicals.

Overall, TPL takes a long term view of its direct investment in the UK, the USA, Malaysia and Hong Kong. For example, Mr Ang said that TPL's management is prepared to set aside some "patient money" for five to

seven years to enable the Company to achieve its strategic corporate objectives through product and geographical diversification.

To illustrate how TPL was prepared to sacrifice its short-term profits for long-term gains, Mr Ang revealed that when its subsidiary, *Times Printers Offset (Singapore) Limited* installed its satellite communications equipment to link its offices in London, New York and Singapore, the investment took the Company five years to breakeven because of lack of economies of scale. However, without this technology, Mr Ang believes that it would had been impossible for TPL to gain a foothold in the printing of time-sensitive international and regional periodicals in Singapore for the local market .

8.4.2 Production and Technology Management

Although TPL has not engaged in FDI for "technology-seeking" reasons, all executives interviewed concurred that its overseas operations have enabled the parent company to reap economies of scale and scope, and consequently, provide it with the funds and motivations to move up the technological ladder. The following analysis looks at the impact TPL's cross-border activities on the parent company in terms of: (i) resources allocated to R&D and process innovation. (ii) production capacity and product diversification (iii) factory automation and (iv) rationalisation

(i) Resources allocated to R&D and Process Innovation

Since its incorporation, TPL has not employed any full-time R&D personnel. Despite this lack of in-house innovative capability, the parent Company has still been able to keep abreast of advanced printing technology through technology transfer from its overseas subsidiary. For

example, according to Mr Ang, the *Gravere* printing process technologies in *Times Printers (Singapore) Limited* and *TPL Printers (UK) Limited* were installed with the help of engineers from TPL's Swiss partner in Hong Kong, *A-G Ringier Limited*. Indeed, Mr Ang added that the latter "will spare all efforts" in sending its engineers to assist the TPL's operations worldwide, particularly in solving problems related to quality control.

In other words, unlike Wearnes and YHS (Chapters 6 and 7), TPL's direct investment overseas has no impact on the resources allocated to its parent company's R&D activities. However, Mr Ang envisages that as TPL's product and geographical diversification is expanded further, it may consider having a R&D department in its parent plant.

(ii) Production Capacity and Product Diversification

In Mr Ang's opinion, TPL's international network of printing subsidiaries has not displaced its production capacity in Singapore. Instead, they have increased its overall production volume and diversified its product lines because it is now able to win new and large printing contracts in its overseas plants. For example, in November 1991, TPL secured a five-year contract to print *Time* magazine for S\$10mn. in its UK and Hong Kong factories. Furthermore, in March 1991, its Malaysian plant won a contract with *Mandarin Publishers* to print case bound books for five years. Lastly, in January 1992, it also clinched a five-year contract for S\$30mn. to print and distribute 400,000 copies of *Newsweek* magazine in these overseas production facilities for markets in the UK, Germany, Italy and the Far East. The print runs for the Northeast Asia markets (i.e. served from its Hong Kong plant) are around 265,000 copies per week. Since 1978, TPL

had been trying to get this business deal but was unsuccessful because the printing could not be done in Singapore due to time constraints.

(iii) Factory Automation

Currently, because of the shortage of labour and high wage costs in Singapore (see **Chapter 4**), about 38 per cent of the TPL's production workers employed in the island are foreigners. This is very close to the 40 per cent limitation on the employment of "guest workers" set by the Singapore government.

Arguably, by transferring some of its more labour-intensive activities to Malaysia, the parent company has been able to move into higher value added activities and alleviate some of the problems associated with labour shortage (e.g. wage hikes and "job hopping") in its Singapore operations. For example, over the last three years, more high technology equipment has been installed to automate its printing process for high volume runs.

During a 90-minute tour of the production floor in its factory, *Times Offset (Singapore) Limited*, this researcher was shown by her tour guide, Mr Anthony Gomez, the Group Senior Quality Assurance Executive, how the Company managed to gradually reduce the number of workers manning a production line from fourteen in 1989 to one by early 1992 by automating its manufacturing processes.

Overall, according to Mr Gomez, through factory automation, TPL has been able to expand its production capacity and at the same time, provide better print services to its international publishers without causing any job redundancies in Singapore. However, Mr Gomez feels that TPL has also

almost reached the limits of automation (i.e. to keep the machines running at optimum level) and it may soon need to undertake more of its activities overseas or other faces diminishing returns of automation. For example, to date, the following pieces of modern high-technology equipment have already been installed:

* *Heidelberg Speedmaster* - a 5-unit sheet-fed printing press with an aqueous varnish coating tower capable of producing around 15,000 colour pages per hour

* *Man-Roland 604* - a 4-colour unit sheet-fed and fully computerised press which is capable of producing 13,000 impressions per hour;

* *Upgraded Pagefax* and *Rapicom* - satellite transmission systems for improved transmission links with London and New York;

* *Hantscho Mark 16* - a 5-unit heat-set web press capable of producing up to 38,000 signatures per hour;

* *Ricoh Telepress TP25* - a system which can provide buffer storage and management of incoming transmitted materials;

* *Post Script Bridge* - an equipment and software system to create compatible *PC-DOS* and *MAC* based files for desktop publishing.

(iv) Rationalisation and “Niche Manufacturing Base”

According to Mr Ang, with manufacturing bases in Malaysia, the UK and Hong Kong, the TPL can now use its printing facilities in Singapore to focus on the printing of high quality products that are less sensitive to postal rates or require longer delivery time (i.e. can be sent by shipment). For example, over the next two years, a total of S\$30mn. would be spent in upgrading plant facilities and installing brand new presses to develop its Singapore operations into a "niche manufacturing base" for international

publishers interested in topics related to Asian lifestyles. There are also plans to consolidate all its Singapore-based printing and other printing-related operations under one-roof.

Moreover, according to an internal Company report, with its own printing facilities in the UK, TPL's publishing operations in the UK (i.e. under the *Marshall Cavendish Group*) is now able to cut its overheads. It does so by reducing its stock levels, administrative staff and centralising its operations in two instead of three buildings in Central London. This rationalisation has freed one building for rent or sale.

8.4.3 Human Resource Management

It is not TPL's policy to use overseas postings for its Singaporean executives as vehicles to develop a pool of "international managers" in the parent company. It prefers to employ managers from its host countries to help the Company overcome its "foreignness". All executives interviewed concurred that having a strong team of managers with an international outlook is a prerequisite for a company considering embarking on the FDI route. As Mr Ang said, "We are carrying a bit of *fat* (i.e. recruiting and keeping experienced Singaporean executives) in our parent plant because we are planning to set up more overseas subsidiaries" as a growth strategy.

According to Mr Chew, to upgrade employees' skills, TPL has various on going in-house training courses which are specially designed and conducted for each operating unit. For example, for managers, it has the *Management Development Programme*. It also often engages the expertise of London College of Printing in the UK to develop a series of on-the-job training modules for its senior production staff in Singapore or

sponsors them for full-time courses in offset lithography printing in reputable overseas institutions. For semi-skilled workers, there are generic programmes such as "Core Skills for Effectiveness and Change (COSEC), retail management, export management, computer literacy and writing skills. Since its introduction 1989, around 300 of its staff have benefited from the COSEC programmes.

Currently, TPL considers its MNE status has also enhanced its ability to recruit and retain skilled workers. For example, for the last five years more than 50 per cent of its newly recruited executives are graduates and staff turnover is very low. Whenever possible, it is TPL's policy to promote from within to fill vacancies created by its international product and market diversification programmes (e.g. its wholesales function is now separated from its retail sales operations). Mr Ang feels that improved promotional prospects has enhanced employees' loyalty and motivation. This is reflected in the popularity of its on going in-house productivity programmes such as COSEC. Arguably, this competitive advantage is instrumental to TPL's move into higher value added activities.

Overall, TPL considers the skills of its work-force in Singapore to be comparable to those in the advanced industrialised countries. In fact, shortly after it established its printing facilities in Britain, TPL sent four of its Singaporean executives from the parent company to train its UK staff to use the latest desk-top publishing techniques.

It is this researcher's opinion that because TPL aims "To be a global printer and a major force in the printing and publishing industry", it is compelled to constantly upgrade the skills of its Singapore-based management and

technical staff to enable the headquarter to both co-ordinate and influence its international operations.

8.4.4 Marketing Management

The following sections analyse the impact of TPL's FDI on it's (i) product strategy, (ii) distribution strategy, (iii) market share and (iv) corporate image.

(i) Product Strategy

According to Ms Hew, TPL's overseas subsidiaries have enabled the parent company to work more closely with well known publishers in the US, Germany, Italy, France and Holland to pursue co-edition foreign language publications. They have also allowed TPL to exploit its Singapore-based editorial and printing resources to create and explore new products for specialised market niches. For example, for theme books on cultures, Singapore offers good knowledge of the Asian ways of life and has the expertise to publish in various Asian languages such as Mandarin, Malay, Tamil and Indonesian. The island also provides sophisticated communications facilities. For example, Singapore has a direct dial link with over 170 countries; telecomputer data access links with databases in nearly 60 countries; and a video conferencing network covering 15 major cities in Europe, the USA and Japan.

Clearly, with its international network of subsidiaries, the parent company can now harness its home country's location-specific advantages globally to market cross-cultural works such as "Cultures of the World". This title is a 48-volume series published by *Times Editions Limited* in Singapore and printed by its sister companies in Malaysia and Hong Kong. These books

are aimed primarily at schools, colleges and public libraries in the US. In future, it plans to sell them through its other subsidiaries in Europe and Asia.

(ii) Distribution Strategy

To expedite delivery of periodicals, catalogues and directories, TPL's printing plants in the UK, Malaysia and Hong Kong also undertake distribution responsibilities for its international clients. In Indonesia and Malaysia, where it has a niche market for educational products, TPL is also able to integrate forward through its own chain of around 20 retailing outlets (i.e. *Times The Bookshop Ltd.*). As Mr Ang said, these overseas retailing subsidiaries have not only strengthen TPL's core business activities but at the at the same time provide it with another new source of income (e.g. see **Table 8.2**). Through direct sales, it is also able to monitor and respond to the needs and trends of its customers more effectively.

(iii) Market Share

Although TPL is the largest printing and publishing company in terms of sales turnover in Singapore, in Mr Ang's words, "It is just like a drop in the ocean. It is still not a dominant player in its area of business by international standards". In Singapore alone, it has to compete with 300 printers and 100 publishers. These include established MNEs such as US's largest commercial printing company, *R.R. Donnelley Inc.* and Japanese-based *Toppan Printing* (*Singapore Investment News, 1992*). He argues that it is, therefore, inappropriate to use measure such as market share to evaluate its marketing performance whether its home or overseas markets. In fact, the Company considers itself to be "in the people-business". For example, according to Mr Ang, TPL's international sales promotion and

distribution networks are not dependent on marketing tactics such as branding or market leadership but very much on its ability to establish close relationships with its clients (i.e international publishers), customers and suppliers world-wide.

(iv) Corporate Image

Despite its substantial overseas direct investment (i.e more than half of its total assets of S\$550mn. are abroad), it is still too early to assess what impact TPL's FDI has had on its corporate image. However, it has produced a 30-minute corporate video (and shown to this researcher) to promote its image as an outward and forward looking home-grown MNE. It also aims to project itself as an MNE which is committed to be at the forefront of technology and to the improvement of the welfare of its employees.

8.4.5 Procurement

The bulk of TPL's raw materials consists of paper. According to Mr Gomez, despite the recent controversy over "green issues", TPL has no difficulty in securing reliable supplies of good quality paper at competitive prices from its traditional suppliers in Canada and Finland through Singapore-based firm, *SPH*. The latter has a 20 per cent stake in Canadian paper producer, *Gold River Incorporated*. In addition, it does not face import restrictions on paper and pulp products from the governments in Singapore and its major markets. Thus, its FDI activities have no impact on its corporate procurement strategy.

Figures 8.2 and 8.3 summaries the impact of TPL's FDI on its performance discussed in the preceding sections.

8.5 Factors Influencing TPL's Performance

The following sub-sections largely focus on how TPL's performance is related to these two managerial-related issues:

- (i) the preparation made by the Company prior to undertaking FDI and
- (ii) TPL's international business experience.

8.5.1 TPL's Preparation for FDI and Feasibility Studies

"The UK operations is really a pain in the neck. In 1990, when we set up our manufacturing facilities there, we knew the (UK) economy was in a pretty bad shape. Now it is having its worst recession since the 1930s!"

Mr Ricky Ang, Group Senior Vice-President, International Commercial Printing.

Like YHS but unlike Wearnes, TPL relies on informal contacts for sources of information (e.g. friends, its suppliers and merchant bankers) on overseas direct investment opportunities. Although the Singapore Economic Development Board's Outward Direct Investment Unit (IDI) provides "match-making" services to Singaporean firms seeking cross-border acquisitions or joint ventures, Mr Ang feels that TPL's senior executives have the expertise (e.g. most of them have around 20 years of operational experience in the industry) to conduct feasibility studies themselves.

Unlike YHS's stance over its *Chun King* manufacturing operations in North America, Mr Ang feels that his two colleagues and him who personally carried out the four-month feasibility studies before setting up

production facilities in the UK, could not have done better. For example, in addition to carrying out marketing research (i.e forecasts on sales and competition), the studies included auditing of *Hastlebury Limited's (HL)* production, distribution and staffing functions.

Moreover, new employment contracts were issued to *HL's* workers, clients and suppliers only when they met the parent company's criteria. Eventually, they got an attractive deal (i.e. 30% off the original "price-tag", but the amount was not disclosed to this researcher) to buy only *HL's* physical assets (i.e. the building, equipment and machine) instead of "inheriting" all its existing operations. They saw no synergy between these operations and its *Marshall Cavendish* network in the UK.

With the benefit of hindsight, Mr Ang argues that the feasibility studies for establishing the UK production facilities was so in-depth that it actually also helped TPL to rationalise its already well established (e.g. nearly 10 years). publishing interests. He reckons that the financial crisis its UK operations are now facing would have been worse had the preparation been less substantial.

In other words, Mr Ang sees a positive correlation between the preparation and feasibility studies it made prior to undertaking FDI in manufacturing operations and the impact of the investment on its performance. However, TPL's experience in the UK in particular, strongly suggests that this precautionary measure is not enough to safeguard it against any major economic downturn in its host country.

Arguably, apart from the adequate feasibility studies and preparation it made prior to embarking on FDI, its successful printing operations in Hong Kong and Malaysia are boosted by the strong local economic conditions.

8.5. 2 TPL's International Business Experience

In the late 1970s, TPL embarked on the FDI route mainly to defend its substantial exports (e.g. 75% to 90% of its total output in Singapore) to the USA, Europe and East Asia by setting up marketing and publishing subsidiaries in these countries. However, in the late 1980s, it began to establish overseas manufacturing facilities (see **Table 8.6**) to diversify its product lines (e.g. to print time-sensitive periodicals) and as a means to gain access into new markets (e.g. China and Malaysia).

In other words, despite its short company history (e.g. its origins can only be traced back to 1968), TPL had nearly twenty years of international business experience in dealing with diverse market conditions through exporting and running its overseas marketing subsidiaries before it established its first overseas manufacturing facilities (i.e. *Times-Ringier Limited* in Hong Kong). As Mr Ang said, its investment in Hong Kong was an “immediate success” and “we would like to replicate that success with our partner, *Ringier A.G.*, in other FDI projects”. However, the latter turned down the Company’s invitation to “share the risks” in its recent UK venture.

In the UK, TPL had about ten years of operational experience through its publishing presence before it established its first production subsidiary, *TPL-UK*. It could also exploit its skills in co-ordinating and controlling an overseas factory based on its manufacturing experience in Hong Kong.

However, since the first year of its operations, *TPL-UK* has been incurring losses because of the UK recession. Mr Ang feels that even with participation from *Ringier A.G.*, which is more established as an MNE than TPL, its UK operations would not have been spared the effects of the weak British economy.

Clearly, as in the case of Wearnes and YHS, the finding strongly suggests there is no positive correlation between TPL's international business experience and the impact of FDI on its performance.

Lastly, given the importance of the economic and market conditions of a host country's environment, this implies that in general, it is not possible for this researcher to conclude with conviction that TPL's mode of entry to FDI for a specific venture (i.e. via acquisition, forming joint venture or wholly-owned greenfield investments) is positively correlated its performance.

8.5.3 Other Influencing Factors

In Singapore, the Singapore Stock Exchange. (SES) exercises tight control over public listed firms. According to Mr Ang, Singaporean firms in general, are used to close scrutiny by government authorities. In order to submit its "report cards" to the SES every six months, like Wearnes and YHS, TPL sends its senior executives to inspect its overseas operations and hold frequent board meetings (e.g. once a month) to keep its top management informed of the operating results of its international network. Effective use of TPL's existing resources and rationalisation are achieved because these executives also ensure that all its overseas subsidiaries implement the parent company's productivity programmes. Mr Ang feels

that this rigorous monitoring system and its top management's strong commitment to FDI as a growth strategy have also an indirect positive impact on TPL's operations. For example, throughout 1990 to 1992, despite inflationary pressures in its host countries and rise in production costs in Singapore, TPL managed to maintain its overall overheads at around 23% per cent of its world-wide sales.

Like Wearnes and YHS, TPL's profit margins was also eroded by the appreciation of the Singapore dollar over all major currencies for the last three years (see **Chapter 4**).

8.6 Links Between Findings and Research Propositions

Table 8.8 summaries the relationships between the research propositions and the empirical evidence gathered from this case study on TPL. The following sub-sections discuss each in turn.

Proposition 1: *Singaporean MNEs invest in industrialised countries to acquire advanced manufacturing technology and marketing intelligence -*
Not Supported

Overall, even in developing countries (e.g. Hong Kong and Malaysia) TPL's prime motives for FDI are market-oriented (see **Figure 8.1**). For example, in 1990 when it set up its first printing plant in the UK, its main motive was to gain access into the British market for time-sensitive international periodicals such as *Time* and *Newsweek*. By having direct operations in the West, TPL hopes it will be able to work more closely with well known publishers in the USA, Germany and the UK to undertake cross-cultural works and exploit its Singapore-based editorial resources.

Table 8.8 Links between Research Propositions and Research Findings: Empirical Evidence from TPL

Research Proposition	Conclusion
1. Singaporean MNEs invest in industrialised countries to acquire advanced manufacturing technology and marketing intelligence.	Not supported
2. Singaporean MNEs use overseas postings as tools to develop a pool of Singaporean "international managers" in its parent operations.	Not supported
3. Singaporean MNEs which have been motivated by the "pull" factors such market size and availability of raw materials tend to perform better financially than those motivated by "push factors" such as small domestic market and high production costs.	Not supported
4. The greater the experience a Singaporean MNE has in international business, the better the impact of FDI on its financial performance.	Not supported

continue

Table 8.8 (continued)

Research Proposition	Conclusion
5. The mode of FDI entry has a significant impact on a Singaporean MNE's financial performance overseas.	Partially Supported
6. There is a significant correlation between a particular Singaporean overseas manufacturing subsidiary's financial performance and the amount of feasibility study and preparation made before it has decided to engage in FDI.	Partially Supported
7. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact upon its parent plant's manufacturing technology, production, marketing, human resource and/or procurement management.	Strongly supported
8. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact upon its parent plant's overall profitability.	Partially Supported

Sources: Personal interviews, *Company Annual Reports* (various years), *Handbook of Singapore Companies* (1992), *Business Times* and *The Straits Times*. (various years).

For instance, Singapore offers good knowledge of the Asian way of life and has the expertise to publish in various Asian languages (e.g. Mandarin, Malay, Tamil and Indonesian).

To keep abreast of new process technologies, TPL participates in international machinery and equipment trade fairs and sends its staff to internationally reputable printing colleges (e.g. London School of Printing) for training.

Proposition 2: Singaporean MNEs use overseas postings as tools to develop a pool of Singaporean “international managers” in the parent operations .- Not Supported

TPL prefers to employ host country nationals with operational experience in the printing industry to run its overseas subsidiaries rather than sending Singaporeans. It is also its policy to send senior executives regularly from Singapore to inspect its overseas plant. It also holds regular board meetings (e.g. once a month) to keep its top management team informed of its international operations. To upgrade its middle management skills, TPL conducts various going in-house training programmes (e.g. the *Management Development Programme*) or sends its managers to reputable international business schools for postgraduate management courses.

Proposition 3: *Singaporean MNEs which have been motivated by the “pull” factors such as market size and availability of raw materials tend to perform better financially than those motivated by “push factors” such as high local production costs and small domestic market.* - Not Supported

For the last two to three years, TPL’s operations in the USA and UK had been facing financial crises although they were established there mainly for market-oriented reasons (see **Figure 8.1**). For example, *TPL-UK*’s profit margins suffered as its prices had to be reduced significantly because its clients were cutting their publishing programmes and reducing their print runs. In the USA, its subsidiary *HS Stuttman Inc.* was adversely affected by poor consumer spending.

Proposition 4: *The more experienced a Singaporean MNE is in international business in terms of the length of time and the diversity of overseas markets which it has been servicing prior to engaging in direct investment, the better the impact of FDI on its financial performance* - Partially Supported

In the UK, TPL had about ten years of operational experience through exporting and its publishing presence before it established its first production subsidiary, TPL-UK. It could also exploit its skills in coordinating and controlling an overseas factory based on its manufacturing presence in Hong Kong. Despite its previous operational experience, since the first year of its operations, *TPL-UK* has been troublesome.

On the other hand, although *Times-Ringier Limited* in Hong Kong was TPL's first overseas manufacturing investment, according Mr Ang words, it was an "immediate success.....we (TPL) would like to replicate that success with our partner, *Ringier A.G.*". TPL also had around three years of marketing and publishing experience in the colony before setting up this printing plant.

Proposition 5: The mode of FDI entry has a significant impact on the financial performance of a Singaporean MNE. - Partially Supported

Except for *TPL-UK*, all TPL's overseas printing subsidiaries were formed via joint ventures. Since their incorporation, *Times Offset Sdn. Bhd.* in Malaysia and *TPL- Ringier Ltd.* in Hong Kong, have been profitable operations. However, according to all executives interviewed, even if TPL had a partner to participate in its UK operations, it would probably still be facing the same financial problems it has been having over the past three years because of the recession. At the same time, the executives did not think *TPL-UK's* poor financial results were due to the fact that it was formed by acquisition rather than greenfield investment. This is because when TPL acquired *Hastlebury Limited (HL)* to form *TPL-UK*, it only bought its physical assets (e.g. building, printing equipment and machinery). In other words, it did not inherit HL's total operations which include its marketing network, suppliers and production and supporting staff.

Proposition 6: *There is a positive correlation between a particular Singaporean overseas manufacturing subsidiary's financial performance and the amount of preparation and feasibility studies made before it has decided to engage in FDI.* - Partially Supported

Before TPL established *TPL-UK*, the feasibility studies and preparation undertaken included not just sales forecasts but also manpower, process technology and marketing audits of the targetted company (i.e. HL). All executives felt that TPL's UK operations on the whole (i.e. including its established publishing and marketing operations under the *Marshall Cavendish Group*) would have been more adversely affected by the UK recession had the feasibility studies and preparation made been less thorough. However, its experience in the UK also strongly suggests that this task is at its best only a precautionary measure. It does not safeguard it against the prevailing poor economic conditions in the host country.

Proposition 7: *FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on the parent plant's operational functions such as its manufacturing technology, production, marketing, human resource and/or procurement management.* - Strongly Supported.

Although TPL does not have an in-house R&D department, the parent company has been able to keep abreast of advanced printing technology through technology transfer from its overseas subsidiary. For example, the *Gravere* printing process (i.e. suitable for high quality and volume print

runs) in *Times Printers (Singapore) Limited* were installed with the help of Swiss engineers from its partner in Hong Kong, *A-G Ringier Limited*.

TPL's overseas manufacturing facilities have not also displaced its production capacity in Singapore. Instead, they have increased its overall production volume and diversified its product lines. For example, it is now able to win new and large contracts to print and distribute time-sensitive international periodicals such as *Time*, *Newsweek*, *Fortune* and *The Economist* (see **Section 8.4.2**) in Europe and Northeast Asia.

With production bases in Malaysia, the UK and Hong Kong, TPL is now able to use its facilities in Singapore to focus on the printing of high quality products for exports. For example, over the next two years, a total of S\$30mn. would be spent to upgrade its Singapore operations into a "niche manufacturing base" for international publishers interested in topics related to Asian lifestyles. There are also plans to consolidate all its Singapore-based printing and other supporting services under one-roof.

Arguably, by transferring some of its more labour-intensive activities to Malaysia, the parent company has been able to move into higher value-added activities and alleviate some of the problems associated with labour shortage (e.g. wage hikes and "job hopping") in its Singapore operations. For example, over the last three years, more high technology equipment (e.g. *Heidelberg Speedmaster and man-Roland*) has been installed in its parent plant to automate its printing process for high volume runs. Through the factory automation, the company was able to gradually reduce the number of production workers manning a production line from fourteen in 1989 to one by early 1992.

TPL's multinational status has also enhanced its ability to compete with other MNEs (e.g. there are around 3000 foreign MNEs in Singapore) to recruit and retain skilled workers. For example, over the last five years, more than 50 per cent of its newly recruited executives are graduates and staff turnover is very low.

Proposition 8: FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on the parent's overall profitability. - Partially Supported

In 1985, TPL began to embark on the FDI route as a growth strategy (see **Table 8.5**). By the end of 1992, TPL had established 38 overseas subsidiaries in eight countries. **Table 8.1** shows that from 1985 to 1988, TPL's profits dropped by an annual average of 11 per cent but improved by around 20 per cent for the period 1988 to 1991. However, between 1991 to 1992, it fell by nearly 30 per cent. The bulk of the decline in profits over the last two years were caused by its subsidiaries in the UK and USA.

8.7 Summary and Conclusions

By the late 1990s, TPL aims to have established integrated production subsidiaries in at least three regions: Asia, Europe and North America. Currently, it has 38 subsidiaries spread across nine countries in all of these regions but its overseas manufacturing facilities are to be restricted to Asia (i.e. Singapore, Malaysia and Hong Kong) and Europe (i.e. the UK). Overseas assets account for more than half its total assets currently employed in production and around three-quarters of its 2300 work-force worldwide are overseas.

TPL has engaged in FDI in both developing and the developed countries primarily for market-oriented motives. In 1988, it established a plant in Hong Kong because it believed a manufacturing presence there would facilitate its access into the potentially huge Chinese market after 1997 when China gains sovereignty of the British colony.

In Malaysia, Thailand and Indonesia, TPL is also mainly attracted by their high market growth potential. With direct investment commitments in the Far East, TPL hopes to diversify its markets, and product lines, and subsequently reduce the risks of depending on exporting from Singapore to one or two major markets such as the UK or the USA. It is now using its Malaysian production facilities as "export platforms" for price-sensitive and mass produced academic products to world markets.

Apart from its operations in the UK and the USA, all TPL's overseas subsidiaries have had a positive impact on its overall profitability. The parent company has now moved into higher value added activities because FDI has provided it with funds and motivations to upgrade its home operations. On the whole, despite the financial crisis faced by its subsidiaries in the UK and the US for the past two years, TPL's top management feels that it has also benefited from its FDI in these two countries.

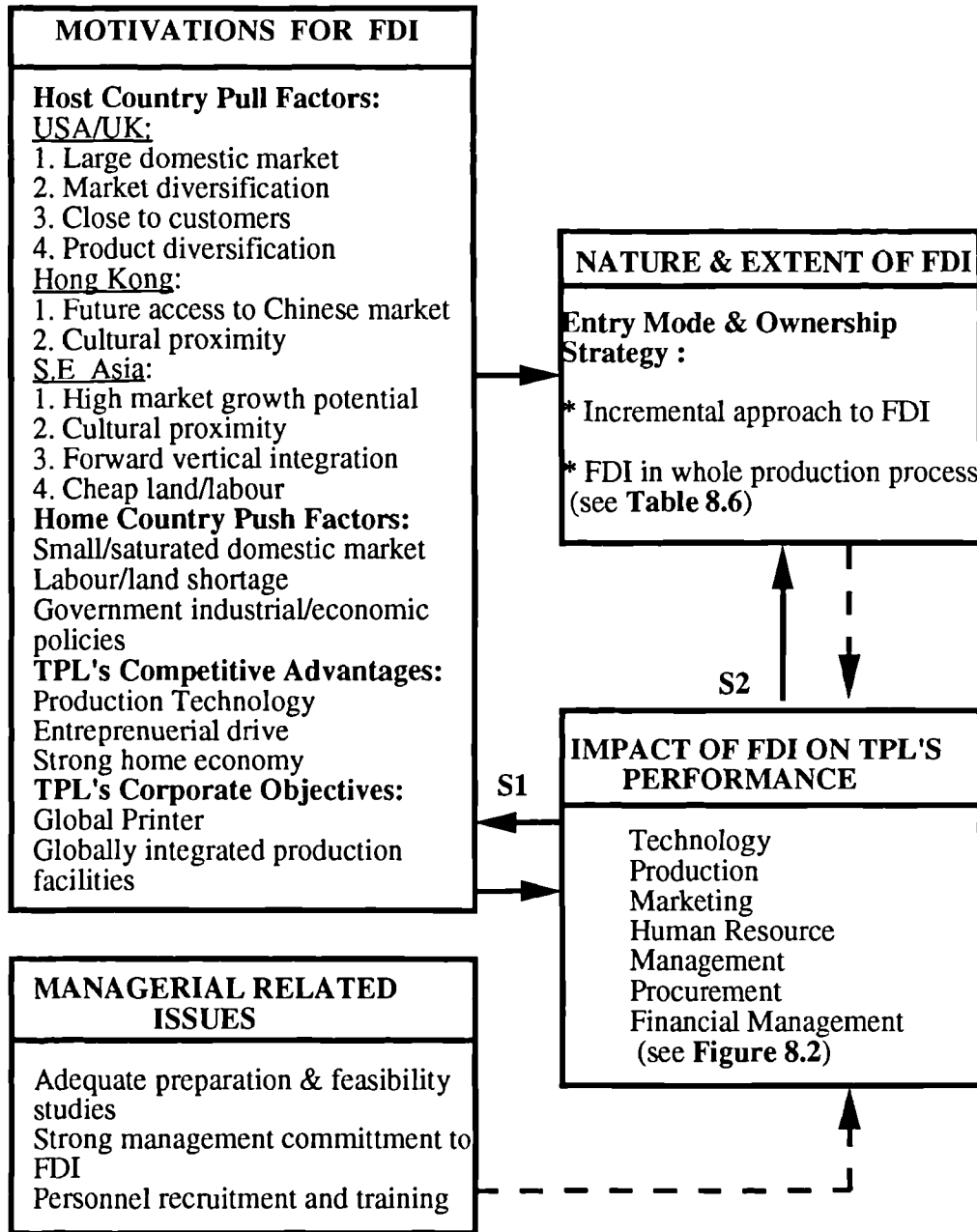
Through its overseas subsidiaries in both the West and East, TPL is able to work more closely with international publishers to co-produce cross-cultural works and subsequently, extend its product lines and diversify its markets. With printing facilities in the UK and Hong Kong, it is now possible for it to undertake the printing and distribution of time-sensitive

international periodicals for the British and Northeast Asian markets respectively. It is also using its UK printing facilities to strengthen its publishing interests in Australia, the UK and the USA under the *Marshall Cavendish Group* .

Analysis of the findings in this case study strongly suggests that there is no significant correlation between TPL's international business experience and the financial performance of its overseas manufacturing subsidiary. It also suggests that while adequate preparation and feasibility study is positively related to a particular overseas manufacturing subsidiary's financial performance, this will not spare it from the effects of the prevailing economic conditions of its host country.

Overall, the findings also strongly suggest that the impact of TPL's FDI on its operational performance influences its subsequent investment characteristics and behaviour. **Figure 8.4** summaries the interdependent and interactive relationships of the four sets of variables studied in this research.

**Figure 8.4 The Impact of FDI on TPL's Performance:
Major Firm-specific Influencing Factors**



Note: A. Numbers for motivations for FDI denote ranking of importance
 B. S1 & S2 refer to subsequent FDI decisions and characteristics

Sources: Personal Interviews, *Company Annual Reports* & Newsletter, *Business Times* (various years)

PART IV

**CONCLUSIONS AND
IMPLICATIONS**

CHAPTER NINE

CONCLUSIONS AND RECOMMENDATIONS

9.1 Introduction

While much research has been done to analyse why and how FDI impacts upon groups of investing firms' financial performance (see **Table 3.1**), considerably less empirical work, particularly through detailed case studies, has been directed towards investigating how and why FDI impacts upon an individual MNE's non-financial performance. Moreover, since the late 1980s although it has been the Singapore government's declared industrial and economic policy to encourage and assist Singapore-owned enterprises to invest directly overseas (see **Chapter 4**), there is still very little literature on Singaporean outward FDI. This research attempts to redress this imbalance.

This chapter presents the main conclusions and implications of the literature review and empirical case studies on three Singaporean industrial MNEs [i.e. *Yeo Hiap Seng Limited* (YHS), *Wearnes Brothers Limited* (Wearnes Tech) and *Times Publishing Limited* (TPL)] conducted by this researcher. It also discusses the contributions of this research to the theoretical and empirical literature. Lastly, it provides a proposal for future research.

9.2 Main Conclusions of the Literature Review and Case Studies

The literature review has established the limitations of classifying developing countries together into a generalisable category for in-depth studies of FDI. In addition, this review has proclaimed that the economic theories of FDI by themselves are unable to explain satisfactorily the behavioural differences between individual firms in terms of their strategic responses to their markets and competitive environments.

In other words, the literature review suggests that the complexity and the dynamics of today's international business activities and environmental variables dictates that one takes an interdisciplinary approach that is based on concepts from *both* economics and business strategy to explain the FDI phenomenon. This review has also established the importance of having an in-depth understanding of an individual investing MNE's corporate strategy and multiple objectives before formulating measures to assess the impact of FDI upon its performance.

It suggests too that MNEs may undertake FDI to acquire monopolistic advantages rather than exploit their ownership advantages (i.e. contrary to explanations given by conventional FDI theories). It argues that a particular firm may undertake FDI in a specific location because it perceives the host country's environment can help it gain competitive advantage within its own organisational structure over its home or rival firms in certain operational functions.

Based on the notion that modern firms are multi-functional and have multiple goals, the review has identified the rationale of using *both* financial and non-financial measures to assess how a particular investing

MNE's FDI impacts upon its parent company's performance. It also stresses the need to take a case study approach when assessing the qualitative impact of FDI upon its parent operations.

This review has also suggested that in addition to the multinationality factor, managerial behavioural issues such as an MNE's preparation and feasibility studies along with its international business experience may exert significant influence on the performance of its FDI.

Lastly, the literature review on the Singapore economy has ascertained that official records (i.e. from the Singapore Department of Statistics) of Singaporean outward FDI have been available since 1976. This data also indicates that since the mid-1980s, Singaporean MNEs have been undertaking FDI in geographically and culturally remote countries (e.g. the USA and Western Europe). It has demonstrated that an MNE's home environment such as the country's endowment, demand conditions, and government economic and industrial development strategies can have significant influence on its FDI behaviour and characteristics.

The findings of all the three case studies conducted by this researcher confirmed that firms will evaluate the impact of FDI upon their performance as positive or negative in accordance with their corporate objectives which they have set for crossborder expansion. They may consider a particular overseas venture as a "success" even if it has a negative impact on its overall financial performance. In other words, the findings confirm the validity of incorporating non-financial or qualitative measures to assess the impact of FDI upon an investing MNE's performance.

They also strongly suggest that the three case companies see the current losses incurred by their overseas subsidiaries as part of the price they are willing to pay to achieve their long-range corporate goals. Indeed, despite suffering from poor financial returns from their FDI, all of them consider their foreign operations as "successful" in marketing and/or technical terms. There is strong empirical evidence from all the three case companies to suggest that FDI has significantly enhanced the management capability of all the three companies' parent operations in all key functional areas.

The findings also suggest that the positive or negative impact of FDI on the parent company may be largely due directly to the adequacy or inadequacy of the preparation and feasibility studies which they made prior to setting up a particular overseas manufacturing subsidiary, rather than to their international business experience or multinationality.

There is also conclusive empirical evidence to demonstrate that the performance of an MNE's particular overseas subsidiary has significant influence upon its subsequent FDI decisions and characteristics. In the case of TPL, one of the prime motives for establishing its UK manufacturing facilities was because it wanted to "replicate the success" of its printing operations in Hong Kong (i.e. its first overseas plant). As for YHS, it has recently set up subsidiaries in South America and is planning to do likewise in Western Europe because it wants to exploit its US manufacturing and marketing experience in servicing Caucasian or non-Asian markets. In regards to Wearnes Tech, its "technology seeking" investments in China were mainly spurred on by its initial success with similar types of activities in the USA.

9.3 Contributions to the Theoretical and Empirical Literature

The findings confirm that firm-specific behavioural issues such as management decision making process, perception of risks (e.g. its top management's entrepreneurial drive) and corporate culture have significant influence on an MNE's FDI decisions. The cultural influence on all the three MNEs' FDI behaviour can be seen in their heavy reliance on personal contacts for overseas investment opportunities and/or their strengths in producing *ethnic products* through overseas *manufacturing niches*. The cultural factor is also evident in that ethnic ties and the Chinese language have major influence upon the three case MNEs' FDI decisions and patterns in China.

Based on all the three case companies' FDI experience, there is also ample empirical evidence to suggest that the initial source of a firm's product or process innovations can come from any of its overseas subsidiaries, and consequently, this potential benefit becomes an attraction for further crossborder expansion through the FDI route. These findings on the potential to enhance the parent company's innovation capability through overseas subsidiaries suggest that the incentive to undertake FDI increases as an MNE expands its international operations.

Overall, these findings on the influence of culture, innovation and entrepreneurship add empirical evidence to the literature on FDI theories [see **Chapter 2, section 2.2 (iii)**] which suggests that transaction costs rather than geographical locational costs may have more influence upon a firm's choice of FDI site.

More importantly, the findings refute the body of literature (i.e. explanations of FDI based on economics) which suggests that a firm will undertake FDI particularly only in those locations where it perceives the highest gain in financial returns.

Conversely, the findings tend to broaden and enrich the literature (i.e. explanations of the motives and the impact of FDI upon investing firms' performance based on the business strategy/policy concepts) that suggests a firm's choice of entry mode in servicing foreign markets will depend on the strategic relationship the firm perceives between its multiple operational functions and its corporate goals in different countries. For example, they strongly suggest that MNEs are willing to accept trade-offs (e.g. short-term profits) for their long-term corporate goals (e.g. to establish an integrated production and marketing network in their major markets and/or to be closer and more responsive to customers).

In other words, the findings confirm that the three case companies' configuration and co-ordination of value added activities are mainly related to their global strategies. Where there is uncertainty of the risks involved, it is their senior managers' entrepreneurial drive and the financial resources which the case companies possess or can have privileged access to (e.g. with participation from the Singapore government as a partner in overseas joint ventures) that has been the crucial determining factors in their choice for FDI against other alternative foreign market entry modes.

The findings on the impact of FDI in the three case studies also confirm that the diversity of environments which an MNE is exposed to, provides it with multiple stimuli and subsequently allows it to develop capabilities

and learning opportunities not open to the domestic firm. For instance, Wearnes Tech's operations in Singapore (see **Chapter 7**) have benefited from the transfer of automation skills from its US subsidiaries, stamping skills from its European subsidiaries, and skills in design of high precision moulds and machine tools from its Chinese subsidiaries. Several of its patented products for world markets (e.g. frequency synthesisers and VGH monitors) were initially developed by its overseas R&D facilities (e.g. in the USA and Taiwan). In YHS's case (see **Chapter 6**), its chocolate flavoured range of soya drinks were developed as a result of its manufacturing presence in North America. For TPL (see **Chapter 8**), its overseas operations have enabled it to undertake cross-cultural works with publishers in Western Europe and the USA.

Surprisingly, unlike for many East Asian MNEs, circumventing trade protectionism and host country investment incentives are not the three case companies' key motives for their FDI in the EC. They also do not view developing East Asian countries such as China, Indonesia, Thailand, Malaysia, and Vietnam mainly as manufacturing backyards for their labour-intensive activities but rather, as markets with high growth potential. Indeed, Wearnes Tech is also investing in China to source advanced manufacturing technology.

All the three case companies reckon the economic reforms introduced in China offer more opportunities to their market-oriented corporate objectives than the formation of the Single European Market. Since the late 1980s, they also have been treating their investments in Hong Kong and China as one entity.

The findings of this research also suggest that contrary to the suggestion in the literature review on the Singapore economy (see **Chapter 4**), the high concentration of foreign MNEs has not stifled the development of the three case companies' technological capacity. Currently, like most Swiss companies (Wilkins, 1990) all the three case companies have greater investments abroad than at home. By the late 1990s, all of them aim to have established globally vertically integrated manufacturing facilities in these three regions: (i) North America, (ii) Western Europe and (iii) East Asia.

Although FDI has a positive impact on the all three case companies' human resource management, the findings also strongly suggest that they do not see overseas postings as tools for the development of a pool of Singaporean "international managers" in their parent operations.

Surprisingly, they also see foreign MNEs based in Singapore as good training grounds for fresh graduates and consequently, sources for recruitment of prospective senior managers. They are also capitalising on Singapore government's fiscal and monetary policies (i.e. through skills development funds, investment in education) which encourage indigenous companies to undertake FDI through the upgrading of their manpower.

The empirical evidence gathered in this research, on the other hand, does not allow the researcher to conclude convincingly whether the mode of FDI entry (i.e. via acquisition, joint venture or wholly-owned greenfield investment) in itself has an impact upon their performance. For example, YHS attributes the initial problems it faced with its operations in North America to inadequate knowledge of the target company and the North

American market conditions, and the size of the acquisition. In TPL's case, it insists that its US and UK subsidiaries were problematic because of their host countries' recessionary environment.

Moreover, the majority of Wearnes Tech's crossborder acquisitions have been very successful since the first year of their operations. However, with regard to FDI entry by joint venture, in both YHS's and Wearnes Tech's experiences, joint ventures with host country's firms particularly in China, tended to bear better financial returns than other modes of entry. Through this method, the Chinese government will guarantee to buy at least 30 per cent of these subsidiaries' total output.

Despite the empirical evidence from previous research (see **Chapter 2**), all the three case companies see their incremental approach to FDI (i.e. starting with exporting, then sales subsidiaries) as key success factor of their FDI.

Table 9.1 provides a summary of the links between the research findings and propositions for all the three case companies.

9.4 Recommendations of this Research

Currently, the Singapore government is encouraging indigenous enterprises to undertake overseas investment through some fiscal and monetary policies. The research findings show clearly that the home government has a role to play if outward FDI is to be used to create an *external economy* for Singaporean enterprises to enhance their competitiveness and provide spin-offs for the Singapore economy.

Table 9.1 Research Propositions and Findings

Research Propositions	Case Company / Findings		
	YHS	Wearnes Tech	TPL
1. Singaporean MNEs invest in industrialised countries to acquire advanced manufacturing technology and marketing intelligence.	Not supported	Partially supported	Not supported
2. Singaporean MNEs use overseas postings as tools to develop a pool of Singaporean "international managers" in their parent operations.	Not supported	Not supported	Not supported
3. Singaporean MNEs which have been motivated by the "pull factors" such as large market size and availability of raw materials tend to perform better financially than those motivated by "push factors" such as high local production costs and small domestic market.	Not supported	Not supported	Not supported
4. The more experienced a Singaporean MNE is in international business in terms of the length of time and the diversity of overseas markets which it has been servicing prior to engaging in direct investment, the better the impact of FDI upon its financial performance.	Not supported	Not supported	Not supported

continue

Table 9.1 (continued)

	YHS	Wearnes Tech	TPL
5. The mode of FDI entry has a significant impact on the financial performance of a Singaporean MNE.	Partially supported	Partially supported	Partially supported
6. There is significant correlation between a Singaporean MNE's financial performance and the amount of preparation and feasibility studies made before it has decided to engage in FDI.	Supported	Partially supported	Supported
7. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on its parent company's manufacturing technology, production marketing, human resource and/or procurement management.	Supported	Strongly Supported	Strongly Supported
8. FDI makes a Singaporean MNE more successful domestically in terms of its positive impact on its parent company's overall profitability.	Partially supported	Partially supported	Partially supported

Source: This researcher

The Singapore government's intervention has probably speeded up the flow of Singaporean outward FDI. However, it still has not created a mechanism through which it can use to ascertain the effectiveness of these investment incentives in terms of the types and magnitude of outward FDI it aims to promote. Although FDI has had a positive impact upon the technological development of the three case companies' home operations, it is recommended that the Singapore government monitor the performance of Singaporean FDI at both company and country levels before it continues to set up various economic committees to promote (earnestly) outward FDI.

It is essential that the public policy makers recognise that if FDI induces Singaporean firms to relocate their key functions (e.g. those which require highly skilled and trained personnel) to other countries, Singapore's attempts to move up the technological ladder will still be heavily dependent on its ability to attract hi-tech foreign MNEs to the island.

Both the Singapore government and Singaporean MNEs also need to recognise that having a pool of international managers is an important element of a firm's overseas expansion strategy. The reluctance of Singaporeans to take up overseas postings will hinder Singaporean MNEs' aims to establish globally integrated manufacturing and marketing networks. Thus, it is recommended that the Singapore government establish *Singapore International Schools* (i.e. similar to those established overseas by Japan and Western industrialised countries) to cater to the needs of Singaporean expatriates' children. Although the *National University of Singapore* has recently announced that it will waive the second language entry requirement for children of Singaporeans who have

been working overseas, it is anticipated that some Singaporeans may still prefer their children to be proficient in their mother tongue.

When the size of affected group of children is too small to make setting up a school economically and socially viable, it is also recommended that the Singapore government should perhaps consider collaborating with the Taiwanese and Hong Kong governments and businessmen to set up *Chinese Language Learning Centres* in countries where these two "tigers" are also investors

Singaporean MNEs themselves will also need to analyse the remuneration packages for their expatriate managers and their repatriation practices if they wish to encourage more Singaporeans to work overseas.

Since all the three case companies reported that they have been relying heavily on personal contacts for information on overseas investment opportunities, it is recommended that they build up a data base within their own organisational structure to scan formally opportunities for expansion in different countries. Such facilities will enable the management to undertake long-range planning or reduce the incidence of embarking on an overseas venture without thorough feasibility studies whenever an opportunity appears.

In addition to the empirical evidence gathered from the three case studies, the literature review performed by this researcher has also established that Singaporean MNEs are very small even when compared to their counterparts based in Asian developing countries (see **Chapter 4**). It is therefore recommended that Singaporean MNEs organise themselves as a

consortium when making major acquisitions or undertaking FDI in major high value-added manufacturing projects. Such a strategy allows the pooling of management and financial resources to achieve synergy.

Singaporean MNEs should also attempt to search their local and foreign business partners themselves rather than depend upon the International Direct Investment Unit (IDI) within the Singapore Economic Development. The IDI's "match-making" services should only be sought as a last resort. For example, the services should only be used when they could not gather adequate information on the prospective partner's operations to decide on the feasibility of forming an overseas joint venture.

The Singapore government's R&D funding (see **Chapter 4**) should be extended to encourage joint research projects between Singapore's tertiary institutions and Singaporean enterprises. As shown by the Wearnes Tech case (i.e. its joint R&D centre with *Nanyang Technological University*), in-house innovative capability can be enhanced through collaboration with academics.

In other words, Singaporean MNEs should proactively identify opportunities to enable them to keep abreast of advanced manufacturing technology or marketing intelligence both within and outside Singapore.

9.5 Implications of this Research

The findings of this research appear to have some implications for both the Singaporean enterprises and the Singapore government. For the individual Singaporean firms, it is clear that FDI offers potential benefits to their long-term competitiveness. These are reflected in its favourable effects on

their manufacturing technology, marketing, production, human resource and/or procurement management. However, it has to be recognised that some trade-offs may be necessary before some of these gains can be realised. Firms will also need bear in mind that excessive concern with the firm's future competitiveness may distract the company from its current problems. Thus, the parent firms need to set a clear time scale for overseas subsidiaries to achieve specific financial targets in addition to marketing goals.

It also appears that some short-term achievements and successes are needed to create confidence in the investing companies' stakeholders (e.g. employees and shareholders) and the feeling that progress is being made. Singaporean firms embarking on FDI should start with the nearby East Asian developing countries (i.e. ASEAN, Cambodia, Hong Kong, South Korea, Taiwan and Vietnam) as the high economic growth rates these nations are experiencing are expected to continue throughout the 1990s. Naisbutt and Aburdene, 1990) This region clearly offers great market growth potential because even when excluding China, it constitutes a market size of around 600 million people spread over eleven countries.

The findings in this research also suggest that all the three case companies appear to have no clear perception of the potential benefits of using licensing as an international market penetration strategy to complement their FDI and exporting activities. Although YHS is also licensing to serve its overseas markets, this mode is now limited to Indonesia and Mauritius only. *Wearnes Tech* and *TPL* do not license their technology to third parties.

While all the three case companies have revamped their organisational structures as their foreign networks and product lines expand, tight control from their parent companies seems to be the norm. This could be due to the fact that they are *new* and small MNEs or due to the Singaporean culture.

Unlike TPL, both Wearnes Tech and YHS do not have a corporate mission statement to reflect their international orientation. In their quest to become global companies, it will be useful for them to develop such a statement to justify their overseas strategic intentions.

For the Singapore government, the findings in this research suggest that its current industrial policy to restructure the local economy by nurturing local MNEs to reduce heavy reliance on foreign firms appears timely (see **Chapter 4, section 4.4.3**). However, at the same time, one of the key issues that it needs to address is the nature of jobs which could have been created or lost in the island as a result of implementing this strategy.

Another key issue is that it needs to focus upon is whether it is supporting the best - those Singaporean enterprises which will benefit from FDI and at the same time create economic spin-offs for the country. It must recognise that for some companies, undertaking FDI may not only prove to be less optimal than exporting and licensing, it may be suicidal.

9.6 Limitations of this Research

This research analyses why and how FDI impacts upon three Singaporean industrial MNEs' performance using the case study approach. But case studies do not rely on statistical analyses of aggregate data and so the findings of this research cannot be reasonably generalised to a larger

universe. The empirical evidence gathered should also be treated as suggestive rather than inferential since advanced statistical techniques have not been applied.

This study has confirmed that the nature of the industry, the nature of a firm's product and the competitive environment have significant influences on its perception of what constitutes "success" and "failure". Thus, findings of this research on the positive or negative impact of FDI upon on the case companies' performance are probably also not generisable to state-owned enterprises or MNEs in the service and primary industries.

Based on these limitations, the following section suggests areas for further investigation.

9.7 Proposal for Further Research

The analytical frameworks on the explanations of FDI and the impact of FDI upon Singaporean investing firms' performance developed by this researcher have added new dimensions to the business oriented and behavioural theories of FDI. It will be very useful to assess the applicability of these dynamic models to MNEs based in other countries. For example, these models could be applied to include a wider sample of MNEs of comparable similar size but which are based in all the "four tigers". They can also be applied to MNEs from just a specific developing or developed country. This will determine if there is also any cultural element in the MNEs' perception of what constitutes negative or positive impact of FDI upon their performance. At the same time, it may also provide some useful policy implications for both the decision makers in the individual countries studied and international organisations (e.g.

UNCTC; IMF; World Bank; ESCAP) concerned with the power and contributions of MNEs.

The unit of analysis in this study is the individual public listed company. The model may also be broadened to further investigate the impact of FDI whereby the unit of analysis is a specific industry or a number of distinct industrial sectors. This will allow policy makers to investigate the effects of outward FDI on the home country's industrial structure.

As noted in the earlier discussion, outward FDI may have repercussions on the nature of jobs created or lost in the home country. Thus, another possible area of research is to investigate the employment impact of outward FDI on the Singapore economy. This will require a survey method as the impact is at macro-level (i.e. it involves a statistical analysis of aggregate data).

Moreover, since Singapore is a major investor in *ASEAN* (see **Chapter 4, section 4.5.1**), the scope of study can be widened to investigate the employment and technology impact of FDI upon *ASEAN*. This will provide insights on how the economic co-operation in the region can be extended from trade to include direct investments.

All the three case companies reported that they have revamped their organisational structures, diversified their product lines and modified their marketing, procurement and human resource management strategies or policies to *fit* their multinational operations. There is also scope for research on how such firm-specific variables and parent-subsidiary relationships are related to Singaporean MNE's performance.

Bibliography

Agar, M. H. (1984), *The Professional Stranger: An Informal Introduction to Ethnograph*, Academic Press, N.Y.

Aggarwal, R. (1985), "Emerging Third World Multinationals: A Case of the Foreign Operations of Singapore Firms", *Contemporary South East Asia*, 7, No. 3, pp. 193-208.

Aggarwal, R. (1990), "The International Success of Developing Country Firms: Role of Government Direct Comparative Advantage", *Management International Review*, 30, No. 2, pp. 163-180.

Aggarwal, R. and Jamura P. (1980), "Determinants of Foreign Direct Investments-A Survey", *Weltwirtschaftliches Archiv*, 4, pp. 739- 773.

Aggarwal, R. and Khera, I. (1983), "Strategic Planning for Western Direct Investment in Developing Countries: A Response to the New Realities in Growth Markets", *The Mid-Atlantic Journal of Business*, 21, No. 2.

Aggarwal, R. and Weekly, J. (1984), "Foreign Operations of Third World Multinationals: A Literature Review and Analysis of Indian Companies", *The Journal of Developing Areas*, Western Illinois University, 17, pp. 13-30.

Agmon, T. and Lessard, D. (1977), "Financial Factors and International Expansion of Small-Country Firms". In: *Multinationals from Small Countries*. (Eds.), Agmon, T. and Kindleberger, C., The MIT Press.

Agmon, T., and Kindleberger, C. (Eds.), (1977), *Multinationals from Small Countries*, The MIT Press.

Aharoni, Y. (1972), "On the Definition of a Multinational Corporation". In: *The Multinational Corporation in Transition*. (Eds.), Kapoor, A. and Grub, P., The Darwin Press, Princeton, pp. 1-20.

Ahiakpor, J. (1990), *Multinationals and Economic Development*, Routledge, London.

Ajima, R. and Ricks D. (1981), "Motives of Non-American Firms Investing in the US", *Journal of International Business Studies*, Winter, 12, No. 3, pp. 25-34.

Alexander, S. and Murphy, J. C. (1975), "Exchange Rates and Direct Foreign International Investment", Department of Economics, *Southern Methodist University Working Paper*, 7, February, Dallas.

Ali, I. (1990), "Strategies and Policies for Structural Transformation in Asia", *Asian Development Review*, 8, No. 2, pp. 1-27.

Aliber, R. (1970), "A Theory of Direct Foreign Investment". In: *The International Corporation*. (Ed.), Kindleberger, C., MIT Press.

Aliber, R. (1971), "The Multinational Enterprises in a Multiple Currency World". In: *The Multinational Enterprise*. (Ed.), Dunning, J., Allen & Unwin, London

Aliber, R. (1983), "Money, Multinationals and Sovereign". In: *The Multinational Corporation in the 1980s*. (Eds.), Kindleberger, C., and Audretsh, D., MIT Press, London.

Allino, R. (1989), "Formulating Global Strategy", *Planning Review*, March/April, 1989, pp. 22-28.

Altman, E. I. (1982), *Corporate Financial Distress*, Wiley, New York.

Amsdam, A. (1991), "Big Business and Urban Congestion in Taiwan: The Origins of Small Enterprise and Regionally Decentralised Industry", *World Development*, pp. 1121-1135.

Amsdem, A. (1984), "Taiwan", *World Development*, 12, No. 5/6, pp. 491-504.

Anderson, E. and Gatigon, H. (1986), "Modes of Foreign Entry: A Transaction Cost Analysis and Propositions", *Journal of International Business Studies*, 17, No. 3, Fall, pp. 1-26.

Anderson, P. (1983), "Marketing, Scientific Progress and Scientific Method", *Journal of Marketing*, Vol. 47, Fall, pp. 18-31.

Angebrandt, A. M. (1990), "Taiwan Makers Face New Realities", *Electronics Business Asia*, October, pp. 9-10.

Angebrandt, A. M. (1990b), "Asian PC Makers Boost R&D Funding", *Electronics Business Asia*, September, pp. 9-10.

- Angebrandt, A. M. (1990c), "Taiwan: Great Electronics Aims High", *Electronics Business Asia*, June, pp. 20-21.
- Angebrandt, A. M. (1990d), "Singapore's 15 Leading Electronics Companies", *Electronics Business Asia*, October, pp.59-62.
- Angus, H. (1974), "Multinationals Corporations and Multinational Buying Groups: Their Impact on the Growth of Asia's Exports of Manufactures: Myths and Realities", *World Development*, February, pp. 145-149.
- Arensman, R. (1990), "Singapore's Industry at the Cross-roads", *Electronics Business*, May, pp. 45-48.
- Arensman, R. (1990), "Singapore's Wearnes: Making a Bold Move into High-Tech Arena", *Electronics Business Asia*, June, pp. 28-32.
- Ariff, M. and Hill (1985), *Export-Oriented Industrialisation: The ASEAN Experience*, Allen & Unwin, Sydney.
- Asia Business*, August (1992), "Pacific-Link Up: Why Chinese Business is Sweeping the Ocean", **28**, No. 8, pp. 18-24.
- Asian Business* (1989), "Business Migration Choices", **25**, No. 9, September, p.31.
- Asian Business* (August 1991), "The Merger of the Decade: Taiwanese Business Involvement in China is Ballooning", pp. 42-45.
- Asian Business* (August 1992), "The New Pacific Capitalism: Chinese Families are Changing Business on Both Sides of the Ocean", pp. 19-22.
- Asian Business* (July 1992), "The Top 50 Companies in Singapore", **25**, No. 10, October, p.44.
- Asian Business* (June 1992), "Taiwan Banks Looks at China", pp. 57-61.
- Asian Weekly* (1990), "Future Economic Development in the Little Dragons", June 3, pp. 38-45 (in the Chinese Language).
- Asiaweek* (1990), "An Asian Bloc?", August 10, pp.24-25.
- Asiaweek* (1990), "Asia's New-Wave Expatriates", August 3, pp. 14-18.

- Avishar, B. and Taylor, W. (1989), "Customers Drive a Technology-Driven Company: An Interview with George Fisher", *Harvard Business Review*, **6**, November-December.
- Baker, T. (1986), "Pilkington, the Reluctant Multinational". In: *British Multinationals*. (Ed.), Jones, G., Gower, pp. 184-201.
- Baldwin, R. E.(1979), "Determinants of Trade and Investment: Further Evidence", *Review of Economics and Statistics*, pp. 40-48.
- Bartlett, C. and Ghoshal, S. (1988), "Managing Innovations in the Transactional Companies". In: *Research on Multinational Management* (Eds.), Bartlett, C., Doz, Y. and Hedlund, A., Wesley, London.
- Bartlett, C. and Ghoshal, S. (1989), "Managing Across Borders: The Transactional Solution", *Harvard Business Studies*, Boston.
- Bartlett, C. and Ghoshal, S. (1989), *Managing Across National Borders*, Harvard Business School.
- Baumann, H. G. (1975), "Merger Theory, Property Rights and Patterns of US Direct Investment in Canada", *Welwirtschaftliches Archiv*, pp. 676-698.
- Beamish, P. (1988), *Multinational Joint Ventures in Developing Countries*, Routledge, London
- Beamish, P. W. (1985), "The Characteristics of Joint Ventures in Developed and Developing Countries", *Columbia Journal of World Business*, **20**, No. 3, Fall, pp. 53-72.
- Beamish, P. W. and Lane, H. (1982), *Joint Venture Performance in Developing Countries*, University of Western Ontario, Mimeo.
- Behrman, J. (1969), "Some Patterns in the Rise of the Multinational Enterprises", *The University of New Caroline Graduate School of Business Administration Research Paper*, **18**, pp. 58-60.
- Behrman, J. and Fisher, W. (1986), "Transnational Corporations: Market Orientations and R&D Abroad". In: *The Multinational Enterprise in Transition*. (Eds.), Grub, P., Ghadar, F. and Khambata, D., Darwin Press.
- Benke, R. (1980), "Transfer Pricing: Techniques and Uses", *Management Accounting*, **61**, June, pp. 44-46.

- Blum, F. (1975), Getting Individuals to Give Information to the Outsider, *Journal of Social Issues*, 8, No. 3, pp. 35-42.
- Boatwright, B.D. and G. A Renton (1975), "Analysis of UK Inflows and Outflows of Direct Foreign Investment", *Review of Economics and Statistics*, 57, Cambridge, , pp. 434-446.
- Bonvia (1967), "Singapore's Dark Horizon", *Far Eastern Economic Review*, February.
- Breen, M. and Shrader, E. (1990), "South Korea: Going through a Rough Patch", *Asian Business*, 26, No. 6, June, pp. 38-52.
- Brian, L. (1988), "The Determinants of Manufacturing Ownership in Less Developed Countries: A Comparative Analysis", *Journal of Development Economics*, 28, No. 2, pp. 217-223.
- Bryman, A. (1988), *Quantity and Quality in Social Research*, Unwin Hyman.
- Buchanan, D., Boddy, D. and McCalman, I. (1987), "Getting In, Getting On, Getting Out and Getting Back", In Bryman, A. (Eds.) *In Doing Research in Organisations*, Routhedge and Kegan Paul, Henley on Thames.
- Buchanan, Iain (1972), *Singapore in South East Asia*, G. Bell & Sons Ltd, London.
- Buckley, P. (1981), "A Critical Review of the Theories of the Multinational Enterprise", *Aussenwirtschaft*, 36, pp. 70-78.
- Buckley, P. (1983a), "New Theories of International Business: Some Unresolved Issues". In: *The Growth of International Business*. (Ed.), Mark C., George & Unwin, London.
- Buckley, P. (1983b), "Macroeconomics versus the International Approach to Direct Foreign Investment: A Comment on Kojima's Approach", *Hitosubashi Journal of Economics*, 1, June, pp. 95-100.
- Buckley, P. (1985), "The Economic Analysis of the MNE: Reading versus Japan ?", *Hitosubashi Journal of Economics*, December 2, pp. 117-124.

Buckley, P. (1987), "The Theory of the Multinational Enterprise", *Studia Oeconomiae Negotiorum*, **26**, Acta Universitatis Upsaliensis, Uppsala, Sweden.

Buckley, P. (1988), "The Limits of Explanation: Testing the International Theory of the Multinational Enterprises", *Journal of International Business Studies*, **19**, No. 2, Summer, pp. 181-195.

Buckley, P. (1990), "Problems and Development in Core theory of International Business", *Journal of International Business Studies*, **21**, No. 4, 4th Quarter, pp. 657-666.

Buckley, P. (1990), "Problems and Developments in the Core Theory of International Business", *Journal of International Business Studies*, **XIX**, No. 2, Summer, pp. 181-193.

Buckley, P. (1991), "Development In Internalisation Theory in the 1990s", *Journal of Marketing Management*, **7**, No. 1, January, pp. 15-24.

Buckley, P. (1992), "The Effects of FDI on the Source Country", In Buckley, P. and Brooke, M.(Eds.), *International Business Studies: An Overview*, Blackwell Publishers; UK.

Buckley, P. and Brooke, M. (1992), *International Business Studies: An Overview*, Blackwell Publishers; UK.

Buckley, P. and Casson, M. (1976), *The Future of Multinational Enterprises*, Macmillan Press, London.

Buckley, P. and Casson, M. (1981), "The Optimal Timing of a Foreign Direct Investment", *Economic Journal*, **91**, March, pp. 75-87.

Buckley, P. and Casson, M. (1985), *The Economic Theory of the Multinational Enterprises*, MacMillan Press, London.

Buckley, P. and Casson, M. (1987), "The Multinational Enterprise in Developing Countries", *Paper Presented to the EIBA Annual Conference in Antwerp*, December.

Buckley, P. and Mathew, A. (1979), "The Motivations for Recent First-time Direct Investments in Australia by UK Firms", *Management International Review*, **9**, No. 1, pp. 57-69.

- Buckley, P. and Mathew, A. (1980), "Dimensions fo Market Entry Behaviour of Recent UK First-time Direct Investors in Australia", *Management International Review*, 20, No. II, pp. 35-51.
- Buckley, P. and Mirza, H. (1986), "Pacific Asia's Multinationals", 5, No. 4, pp. 39-43.
- Buckley, P. and Mirza, H. (1988), "The Strategy of Pacific Asian Multinationals", *The Pacific Review*, 1, No. 1, pp.50-62.
- Buckley, P. and Roberts, M. (1982), *European Direct Investment in the USA before World War I*, London, pp. 44-92.
- Buckley, P. Mirza, H. and Prescott (1991), "Europe 1992 and its Impact on Pacific Futures", *The Pacific Review*, 4, No. 4, pp. 368-373.
- Buckley, P., Berkova, Z. and Newhould, G. (1983), *Direct Investment in the UK by Smaller European Firms*, Macmillan Press, London.
- Buckley, P., Dunning, J. and Pearce, R. (1977), "The Influence of Firm Size, Industry, Nationality and Degree of Multinationality and the Growth of the World's Largest Firms, 1962-1979", *Weltwirtschaftliches Archives*, 14, No. 2, pp. 243-257.
- Buckley, P., Newhould, G. and Thurnwell, J. (1988), *Foreign Direct Investment by Smaller UK Firms: The Success and Failure of First-Time Investors Abroad*, Macmillan Press, London.
- Buckley, P., Newhould, G. and Thurnwell, J. (1988), "Going International: The FDI Behaviour of Smaller UK Firms". In: *Recent Research on the Internationalisation of Business*. (Eds.), Mattson, L. and Wiedersheim-Paul, Aimquist and Wicksell, Stockholm.
- Buckley, P., Pass, C. and Prescott, K. (1988), "Measures of International Competitiveness: A Critical Survey", *Journal of Marketing Management*, 4, No. 2, pp. 175-200.
- Buckley, P., Pass, C. and Prescott, K. (1990), "Foreign Market Servicing by Multinationals: An Integrated Approach", *International Marketing Review*, 7, No. 4, pp. 25-40.
- Buckley, P., Pass, C. and Prescott, K. (1990), "Measures of International Competitiveness: Empirical Findings from British Manufacturing Companies", *Journal of Marketing Management*, 6, No. 1, pp. 1-13.

Buckley, P., Pass, C. and Prescott, K.(1991), "Foreign Market Servicing Strategies and Competitiveness", *Journal of General Management*, 17, No. 2, Winter, pp. 35-46.

Bureau of Industry Economics (1984), *Australian Direct Investment Abroad*, Australian Government Publicity Service, Canberra.

Burgenmeier, B. (1989), "Determinants of Swiss Investment Abroad: An Empirical Study". In: *Technology, Policies and Economics*. (Eds.), Keller, C., Matejka, H. and Sezenasi, K., Graduate Institute of International Studies, Geneva.

Burgenmeier, B. (1991), "Swiss Foreign Direct Investment". In: *Multinationals and Europe 1992*. (Eds.), Burgenmeier, B. and Mucchielli, J., Routledge, London.

Burgess, R.G. (1984), *In the Field: An Introduction to Field Research*, George Allan and Unwin, London.

Business International (1976), *Managing Global Marketing; A headquarter Perspective*, Business International Corporation, New York.

Business International (1982), *Assessing Foreign Subsidiary Performance: Systems & Practices of Leading Multinational Companies*, Business International Corporation, New York.

Business Times, December 21-22 (1991), "Yeo Hiap Seng to Lose Three Franchises for Hongkong", BT. Company News.

Business Times, December 29 (1989), "Plans to Provide Official Back-up for Industrial Projects..... EC Paves the Way".

Business Times, July 10 (1990), "Wearnes to Buy 40 per cent Stake in Tanberg Data", p. 1.

Business Times, March 20 (1989), "Northern Development Company (UK), Plans to Woo More Singapore Companies".

Business Times, March 20 (1989), "Opportunities Abound in North England", Singapore Manufacturers Association Head, p.4

Business Times, March 21-22 (1992), "YHS Post Worst Results Ever with \$1.4 million Net Losses", p.1.

Cable, V. and Persaud, B. (Eds.), (1987), *Developing with Foreign Investment*, Croom Helm, London.

Calvet, A. L. (1981), "A Synthesis of Foreign Direct Investment Theories and Theories of the Multinational Firm", *Journal of International Business Studies*, **12**, pp. 43-59.

Campbell, D.T. (1975), Degrees of Freedom and the Case Study, *Comparative Political Studies*, Vol. 8, July, pp. 178-193.

Campbell, J.P., Draft, R.L. and Hulin, C. (1987), *What to Study: Generating and Developing Research Questions*, Beverley Hills, CA: Sage

Cantwell, J. A. (1989), *Technological Innovation and Multinational Corporations*, Basil Blackwell, Oxford.

Cantwell, J. A. (1990), "A Survey of Theories of International Production". In: *The Nature of the Transactional Corporation*. (Eds.), Pitelis, C. and Sugden, R., Routledge, London.

Cantwell, J. A. (1990a), "Historical Trends in International Patterns of Technological Innovation". In: *New Perspective in the Late Victorian Economy: Quantitative Essays on British Economic History*. (Ed.), Foreman-Peck, J., Cambridge University Press.

Cantwell, J. A. (1990b), "The Effects of Integration on the Structure of Transnational Corporation Activity in the EC". In: *The Implications of the Completion of the Single Internal market of the EC for Transnational Corporation Activity*. (Ed.), Dunning, J., United Nation, New York.

Cantwell, J. A. (1990c), "The International Agglomeration of Technological Activity", *Discussion Papers in Industrial Economics*, Series E, **III**, May (1990/91), Department of Economics, University of Reading, England.

Cantwell, J. A. (1991), "The International Agglomeration of R&D". In: *Global Research Strategy and International Competitiveness*. (Ed.), Casson, M., Basil Blackwell Ltd, Oxford.

Cantwell, J. A. and Hodson, C. (1990a), "The Internationalisation of Technological Activity and British Competitiveness: A Review of Some New Evidence", *Discussion Papers in International Investment and Business Studies*, **138**, March, University of Reading, England.

- Cantwell, J. A. and Hodson, C. (1991), "Global R&D and UK Competitiveness". In: *Global Research Strategy and International Competitiveness*. (Ed.), Casson, M., Basil Blackwell Ltd, Oxford.
- Cantwell, J. A. and Randaccio, F. (1989), "Multinationality and Growth amongst the World's Largest Firm", *Discussion Paper in International Investment and Business*, 134, November, University of Reading.
- Cantwell, J. and Dunning, J. (1991), "Multinational Enterprises, Technology and the Competitiveness of European Industries", *Aussenwirtschaft*, 46, Jahrgang, Heft, Zurich, pp. 45-65.
- Caplen, B. (1989), "United Europe: Threat to Asia", *Asian Business*, 25, No. 6, June, pp. 34-44.
- Caplen, B. (1990), "Dawn of the Asian Millennium", *Asian Business*, 26, No. 1, January, pp. 22-28.
- Caplen, B. and Ng, L. (1990), "Singapore's Global Gamble: The Government-Industry Machine Slips into Gear", *Asian Business*, 26, No. 6, June, pp. 26-38.
- Carl, D. and Francio, C. (1984), "Exports of Technology from Semi-Industrial Economies and Local Technological Development", *Journal of Development Economics*, 16, pp. 63-99.
- Casson, M. (1986), "General Theories of the Multinational Enterprise: Their Relevance to Business History". In: *Multinationals: Theory and History*. (Eds.), Hertner, P. and Jones, G. , Gower Publishing Company Ltd., Hants.
- Casson, M. (1987), *The Firm and the Market: Studies on Multinational Enterprise and the Scope of the Firm*, MIT Press, Cambridge.
- Casson, M. (1988), "Entrepreneurial Culture as a Competitive advantage", *Discussion Paper in International Investment and Business Studies*, 124, November, University of Reading.
- Casson, M. (1990), *Entrepreneurship*, Edward Elgar Publishing Limited, Gower House, England.
- Casson, M. (1990a), *Enterprise and Competition: A Systems View of International Business*, Clarendon Press, Oxford.

- Casson, M. (1991), "A Systems View of R&D". In: *Global Research Strategy and International Competitiveness*. (Ed.), Casson, M., Basil Blackwell Ltd. Oxford.
- Casson, M. (1991a), "International Competitiveness and the Location of R&D". In: *Global Research Strategy and International Competitiveness*. (Ed.), Casson, M., Basil Blackwell Ltd. Oxford.
- Casson, M., Pearce, R. and Singh, S. (1991), "Business Strategy and Overseas R&D". In: *Global Research Strategy and International Competitiveness*. (Ed.), Casson, M., Basil and Blackwell.
- Caves, R. (1971), "International Corporation: The Industrial Economics of Foreign Investment", *Economica*, **38**, pp. 1-27.
- Caves, R. (1974), "Causes of Direct Investment: Foreign Firms' Shares in Canadian and United Kingdom Manufacturing Industries", *Review of Economics and Statistics*, **56**, pp. 272-293.
- Caves, R. (1982), *Technology and Productivity: Multinational Enterprises and Economic Analysis*, Cambridge University Press, pp. 195-213.
- Caves, R. (1982), *The Multinational Enterprises and Economic Analysis*, Cambridge University Press.
- Cavusgil, T. (1980), "On the Internationalisation Process of Firms", *European Research*, **8**, No. 6, pp. 273-281.
- Cavusgil, T. and Godiwalla, M. (1982), "Decision Making for International Marketing: A Comparative Review", *Management Decision*, **20**, No. 4.
- Chee, L. (1990), "The Lure of the Archipelago-Singapore Investments in Indonesia Flourishing ", *Singapore Business*, May, pp. 16-21.
- Chen, C. H. (1986), "Taiwan's Foreign Direct Investment", *Journal of World Trade Law*, **20**, pp. 639-64.
- Chen, Edward K. Y. (1981), "Hongkong Multinationals in Asia: Characteristics and Objectives". In: *Multinationals from Developing Countries*. (Eds.), Kumar, K. and McLeod, M. G., Lexington Books, London.

Chen, Edward K. Y. (1982), *Hyper-Growth in Asian Economies: A Comparative Study of Hongkong, Japan, S. Korean, Singapore and Taiwan*, The Macmillan Press Ltd., London.

Chen, Edward K. Y. (1983), "Multinationals from Hong Kong". In: *The New Multinationals: The Rise of Third World Enterprises*. (Ed.), Lall, S., John Wiley & Sons, London.

Chen, Edward K.Y (1989), "Hongkong's Role in Asian and Pacific Economic Development", *Asian Development Review*, 7, No. 2, pp. 26-47.

Chen, Edward K.Y. (1984), "Hongkong", *World Development*, 12, No. 5/6, pp. 481-490.

Chia, Siow Yue (1984), "The Role of Trade and Foreign Investment in the Development of Singapore". In: *Trade and Foreign Investment Experiences of the Asian NICs*. (Ed.), Galdenson, W., University of Wisconsin Press, Madison.

Chia, Siow Yue (1987), *ASEAN-China Economic Relations: Trends and Patterns*, Institute of Southeast Asian Studies, Singapore.

Chia, Siow Yue (1989), "The Character and Progress of Industrialisation". In: *The Management of Success: The Moulding of Modern Singapore*. (Eds.), Sandhu, K. and Wheatley, P., Institute of Southeast Asian Studies, Singapore.

Chinese Chamber of Commerce (1989), "Four Little Dragons' Triangular Relationship the USA and Japan", *Economic Monthly Review*, April, Singapore (in Chinese).

Chng, M. K. (1986), *Technology and Skills in Singapore*, Institute of Southeast Asian Studies, Singapore.

Choi, F. (1990), "Accounting and Control for Multinationals Activities: Perspectives on the 1990s", *Management International Review*, Special Issue, pp. 97-110.

Chowdhury, J. (1992), "Performance of Interantional Joint venture and Wholly-owned Foreign Subsidiaries: A Comparative Perspective". *Management International Review*, 32, 2nd Quarter, pp. 115-133.

Chunanuntathan, S. and Sachamarga, S. (1982), "Determinants of Direct Foreign Investment with Reference to the Specific Role of Foreign

Exchange Rate: The Japanese in Thailand", *Economic Journal for Asia and the Pacific*, **33**, No. 1.

Clark, K. B. (1989), "What Strategy Can Do for Technology", *Harvard Business Review*, **6**, November-December.

Clegg, J. (1989), "Recent trends in Global Pattern of Foreign Direct Investment: Evidence from the US, UK, and the Federal Republic of Germany". In: *Foreign Direct Investment, New World Series*, **X**. (Eds.), Singer, H., Hatti, W. and Tandor, R., Ashsiah.

Cline, R. William. (1982), "Can the East Asian Model of Development be Generalised?" *World Development*, **10**, No. 2, pp. 81-90.

Cohen, Benjamin I. (1975), *Multinational Firms and Asian Exports*, Economic Growth Centre, Yale University, Yale University Press.

Cohen, W. M. and Levinthal, D. A. (1990), "Absorptive Capacity: A New Perspective on Learning and Innovation", *Administrative Science Quarterly*, **35**, No. 1, March.

Collins, J.M. (1990), "A Market Performance Comparison of US Firms Active in Domestic, Developed and Developing Countries", *Journal of International Business Studies*, 2nd Quarter, pp. 271-287.

Connolly, S. G. (1984), "Joint Ventures with Third World Multinationals: A New Form of Entry into International Markets", *Columbia Journal of World Business, Summer*, pp. 18-22.

Contractor, F.J. and Lorange, P. (1988), "Competition vs Cooperation: A Benefit/Cost Framework for Choosing between Fully Owned Investments and Cooperative Relationships", *Management International Review*, **28**, Special Issue 88.

Corbo, v. and Nam, S. W. (1988), "Korea's Macroeconomic Propects and Policy Issues for the Next Decade", *World Development*, **16**, No. 1, pp. 35-46.

Corbo, V., Krueger, A., and Ossa, F. (1985), *Export-Orientated Development Strategies: The Success of Five Newly Industrialising Countries*, Westview Press, London.

Cox, F. (1980), *Growth, Innovation and Employment: An Anglo-German Comparison*, London.

Crane, G. (1990), "Korean Makers Struggle to Regain Export Sales: Firms Forced to Develop Sales Networks and Technology", *Electronics Business Asia*, September, pp. 78-79.

Crane, G. (1990), "Precription for an Ailing Goldstar", *Electronics Business Asia*, May, pp. 69-73.

Cray, D. (1984), "Control and Coordination in Multinational Corporations", *Journal of International Business Studies*, Fall, pp. 85-98.

Dabbs, J.M. Jr. (1982), "Making Things Visible", In J. Van Maanen et al. (Ed), *Varieties of Qualitative Research*, pp. 31-63, Beverly Hills, CA, Sage.

Dahlman, C. J. and Sercovich, F. C. (1984), "Exports of technology from Semi-Industrial Economies and Local Technological Development", *Journal of Economic Development*, **16**, pp. 63-99.

Dahlman, C. J., Ross-Larson, B. and Westphal, L. E. (1987), "Managing Technological development: Lessons from the Newly Industrialising Countries", *World Development*, **15**, pp. 759-775.

Daniels, D. and Radebaugh, L. (1989), *International Business: Environments and Operations*, 5th Edition, Addison-Wesley Publications.

Davenport-Hines, R. (1986), "Glaxco as a Multinational before 1963". In: *British Multinationals*, (Ed.), Jones, G., Gower, pp. 137-163.

Davenport-Hines, R. (1986a), "Vickers before 1945". In: *British Multinationals*. (Ed.), Jones, G., Gower, pp. 43-74.

Dicken, P. (1992), *Global Shift: The Internatiobalisation of Economic Activity*, 2nd Edition, Paul Chapman Publishing Ltd.

Doyle, P. (1991), "Setting Business Objectives and Measuring Performance", *Warwick Business School Research Paper*, **29**, August, University of Warwick.

Doyle, P. (1992), "What are Excellent Companies?", *Journal of Marketing Management*, **8**, No. 2, Academic Press, London, pp. 101-116.

Doyle, P. Saunders, J. and Wong, V. (1986), Competition in Global Markets. *Journal of Interantional Business Studies*, Spring, pp. 27-46.

- Doyle, P., Saunders, J. and Wong, V. (1986), "Japanese Marketing Strategies in the UK: A Comparative Study", *Journal of International Business Studies*, Spring, pp. 27-46,
- Doyle, P., Saunders, J. and Wright, I. (1987), "A Comparative Study of US and Japanese Marketing Strategies in the British Market", *Working Papers Series*, University of Warwick.
- Doyle, P., Wong, V. and Saunders (1991), "Competition in Global Markets", *Journal of International Business Studies*, 4th Quarter.
- Doz, Y. (1986), *Strategic Management in Multinational Companies*, Pergamon Press, Oxford.
- Doz, Y. L. (1978), "Managing Manufacturing Rationalisation Within Multinational Companies", *Columbia World Business*, 13, No. 3, Fall, pp. 82-94.
- Drucker, P. (1964), *The Concept of the Corporations*, The American Library, New York.
- Drucker, P. (1969), *The Age of Discontinuity*, Harper and Row, New York.
- Drucker, Peter, F. (1977), "The Rise of Production Sharing", *Wall Street Journal*, March 15.
- Drysdale, J. H. (1984), *Singapore: Struggle for Success*, George Allen & Urwin (Publishers) Ltd., England.
- Dunning, J. H. (1958), *American Investment in British Manufacturing Industry*, Allen and Unwin, London, (Reprinted by Arno Press, New York).
- Dunning, J. H. (1974), "Multinational Enterprises, Market Structure, Economic Power and Industrial Policy", *Journal of World Trade Law*, Twickenham.
- Dunning, J. H. (1979), "Explaining Changing Patterns of International Production: in Defence of the Eclectic Theory", *Oxford Bulletin of Economics and Statistics*, 4, pp. 269-296.
- Dunning, J. H. (1981), *International Production and the Multinational enterprise*, Allen and Unwin, London.

Dunning, J. H. (1982), "Explaining the International Position Countries: Towards a Dynamic and Development Approach". In: *International Capital Movements*, (Eds.), Black, J. and Dunning, J. H., Macmillan, London.

Dunning, J. H. (1983), "Changes in the Level and Structure of International Production: The Last 100 Years". In: *The Growth of International Business*. (Ed.), Casson, M., Allen and Unwin, London.

Dunning, J. H. (1985), *Explaining International Production*, Unwin Hymer, London.

Dunning, J. H. (1985), "The Eclectic Paradigm of International Production: An Update and Reply to its Critics", *Discussion Papers in International Investment and Business Studies*, 91, December, University of Reading.

Dunning, J. H. (1986), "The Investment Development Cycle and Third World Multinationals". In: *Multinationals of the South: New Actors in the International Economy*. (Ed.), Khan, K., Frances Printer Publisher, London.

Dunning, J. H. (1988), "Explaining International Production", Unwin Hymer, London.

Dunning, J. H. (1988a), "The Eclectic Paradigm of International Production: A Restatement and Some Possible Extension", *Journal of International Business*, Spring.

Dunning, J. H. (1989), "The Theory of International Production". In: *International Trade*. (Eds.), Fatemi, K. Taylor and Francis, N.Y & London.

Dunning, J. H. (1989a), "Japanese Manufacturing Investment and the Restructuring of the UK Economy". In: *Structural Changes in the World economy*. (Ed.), Wedster, A., Routledge, London.

Dunning, J. H. (1990), *The Globalisation of Firms and the Competitiveness of Countries: Some Implications for the Theory of International Production*, Institute of Economic Research, Lund University, Lund, Sweden.

Dunning, J. H. (1991), "Japanese Direct Investment in Europe". In: *Multinationals and Europe 1992*. (Eds.), Burgenmeier, B. and Mucchielli, J.

Dunning, J. H. (1991a), "The Eclectic Paradigm of International Production: A Personal Perspective". In: *The Nature of the Transnational Firm*. (Eds.), Pitellis, C. N. and Sugder, R., Routledge, London.

Dunning, J.H. (1991b), "Government-market-firms: Towards a New Balance?", *The CTC Reporter*, 3, Spring, pp. 2-11.

Dunning, J. H. (1992), "Japanese Direct Investment in Europe", in Burgenmeier, B. and Mucchielli, J. (Eds.), *Multinationals and Europe 1992: Strategies for the Future*, Routledge, London.

Dunning, J. H. and Rugmen, R. (1985), "The Influence of Hymer's Dissertation on the Theory of FDI", *American Economic Review*, 75, pp. 228-232.

Dymsza, W. (1984), Future International Business Research and Multidisciplinary Studies, *Journal of International Business Studies*, Spring/Summer, pp. 9-12.

Dymsza, W. A. (1984), "Global Strategic Planning: A Model and Recent Developments", *Journal of International Business Studies*, Fall, pp. 169-183.

Economist (1988), "The Embarrassment of Riches - Singapore", October 15, p. 98.

Economist, January 9 (1993), "Investment Boom in Singapore", p.36.

Electronics Business Asia, June (1990), "Wearnes Boldline: Making a Bold Move into the Hi-Tech Arena", p. 23-31.

Electronics World News, June 17 (1991), "Inside: Taiwan, Can Taiwan Make the Great Leap Forward?", Special Report, pp. 21-33.

Electronics World News, June 17 (1991), "Taiwan Expansion Plans Take the Whole World", pp. 1 & 40.

Electronics World News, September 9 (1991), "Singapore's Microelectronics Institute Plans Move Ahead", p. 15a.

Emmeriji, L. (1990), "International Investments and Rising Protectionism", *Asian Development Review*, 8, No. 2.

Entrepot (1983), *An Overview of Singapore's Export Performance, 1978-1982*.

ESCAP (1988), "Transnational Corporations from Developing Asian Economies: Host Country Perspectives", *ESCAP/UNCTC Publications Series B*, No. 12, Joint Unit on Transnational Corporations, United Nations, Bangkok, Thailand.

Esterby-Smith, M. et al (1991), *Management Reserach: An Introduction*, Sage International London.

Euh, J. D. and Min, S. H. (1986), "FDI from Developing Countries: The Case of Korean Firms", *The Developing Economies*, XXIV, pp. 149-68.

Euro-Jerc (1991), "Japanese Presence in Europe", *Europe-Japan Economic Research Centre*, Catholic University of Louvain.

Far Eastern Economic Review, April (1990), "Road to Riches", p. 24.

Far Eastern Economic Review, December 3 (1987), "Asian Investment Overseas", p. 66.

Far Eastern Economic Review, Febuary 1 (1990), "Pick a Project", p. 34.

Fieldhouse, D. (1986), "The Multinational: Critique of a Concept". In: *Multinational Enterprises in Historical Perspective*. (Eds.), Teichova, A., Levy-Leboyer, M. and Nussbaun, H., Cambridge University Press.

Financial Times 15 December (1992), "A Profitable Homecoming", pp. 14.

Financial Times, April 4 (1993), "Spouse's Career Limits Postings", p. 9.

Financial Times, August 9 (1990), "Singapore", FT Survey, Section III.

Financial Times, December 20 (1991), "Compaq Seeks Inspiration Abroad", p. 1.

Financial Times, December 20 (1991), "Hongkong Companies Caught in Crossfire", p. 7.

Financial Times, January 20 (1993), "Lee Urges Singaporeans to Spread their Wings", p. 4.

Financial Times, June 30 (1988), "New World in the Making", FT Special Report: Asia Pacific Rim, pp. i-xii.

Financial Times, March 19 (1993), "The Transnational's Identity Crisis", p.12.

Financial Times, May 4 (1993), "Acquisitions Suffer 50% Failure Rate", p.57

Financial Times, May 5 (1990), "Wearnes Join US Buy-Out", p. 6.

Financial Times, May 26 (1991), "Clues that Warn of Collapse", p. IV.

Financial Times, November 9 (1988), "Access to Japanese Markets: Better Payback from Active Involvement", p. 7.

Financial Times, October 14 (1991), "Singapore Company in Wales", p. 6.

Financial Times, 30 April (1993), "Bridge Built between Taiwan and China", p.4

Fleming, M.C. and Nellis, J.G. (1991), *The Essence of Statistics for Business*, Prentice Hall (UK) International.

Fortune, July 31 (1989), "Where Global Growth is Growing", pp. 81-92.

Fransmen, M. (1984), "Promoting Technological Capability in the Capital Goods Sector: The Case of Singapore", *Research Policy*, **13**, pp. 13-54.

Ghoshal, S. and Nohria, N. (1993), "Horses for Courses Organisational Forms for Multinational Corporations", *Sloan Management Review*, p. 23-35.

Ghoshal, S., (1987), 'Global Strategy: An Organising Framework', *Strategic Management Journal*, **8**, pp. 425-440.

Giddy, I. and Young, S. (1983), "Conventional Theory and Unconventional Multinationals: Do New Forms of Multinational Enterprises Require New Theories?". In: *New Theories of the MNEs*. (Ed.), Rugman, A., Croom Helm, London.

Glickman, N. and Woodward, D. (1989), *The New Competitors: How Foreign Investors are Changing the US Economy*, Basic Books, N.Y.

Goh, Keng Swee (1977), *The Practice of Economic Growth*, Federal Publications Pte. Ltd., Singapore.

- Gordon, G. and Longmeid, D (1988), *Qualitative Research*, Gower, London.
- Grant, R. M. (1987), "Multinationality and Performance Among British Manufacturing Companies", *Journal of International Business Studies*, Fall, pp. 69-89.
- Grant, R. M. (1988), "Diversity, Diversification and Profitability among British Manufacturing Companies, 1974-1984", *Academy of Management Journal*, 31, No. 4, December, pp. 771-801.
- Grant, R. M. and Thomas, H. (1988), "Diversity and Profitability: Evidence and Future Research Directions". In: *Competitiveness and the Management Process*. (Ed.), Pettigiew, A., Blackwell, Oxford.
- Gray, P. H. (1982), "Towards a Unified Theory of International Trade, International Production and Foreign Production". In: *International Capital Movements*. (Eds.), Black, J. and Dunning, J., Macmillan, London.
- Gray, P. H. (1982a), "Macroeconomic Theories of Direct Investment: An Assessment". In: *New Theories of the Multinational Enterprise*. (Ed.), Rugman. A., Croom Helen Ltd., Kent, pp. 172-195.
- Gray, S. and McDermott, M. (1989), *Mega-Merger Mayhem: Takeover Strategies, Battles and Contests*", Paul Chapman, London.
- Habib, M. and Victor, B. (1991), Strategy, Structure and Performance of US Manufacturing and Service MNCs: A Comparative Analysis. *Strategic Management Journal*, 12, pp.589-606.
- Hamel, G. and Prahalad, C. (1985), "Do You Really Have a Global Strategy?" *Harvard Business Review*, July-August, pp.397-425.
- Hamel, G. and Prahalad, C. K. (1988), "Strategic Intent", *Harvard Business Review*, May-June, pp. 360-375.
- Hamill, J. (1992), "Strategic Restructuring Through International Acquisitions and Divestments", *Journal of General Management*, 17, No. 1, pp. 27-44.
- Hannah, L. (1988), "Visible and Invisible Hands in Great Britain". In: *Managerial Hierarhies*. (Eds.), Chandler, A. D. and Daems, H., Macmillan, pp. 52-58.

- Haug, P. (1991), "Survey Evidence on the International Operations of the Hi-Tech Firms", *Management International Review*, **31**, No.1, pp.63-77.
- Hawkins, R. (1972), "Job Displacement and the Multinational Firm: A Methodological Review", Occasional Paper **3**, *Centre for Multinational Studies*, Washington, DC.
- Hawkins, R. G. (1984), "International Business in Academia: The State of the Field", *Journal of International Business Studies*, Winter, pp. 13-18.
- Hayes, R. H. and Abernathy, W. (1980), "Managing Our Way to Economic Decline", *Harvard Business Review*, **58**, July-August, pp. 67-77.
- Hayes, R. H. and Jaikumar, R. (1988), "Manufacturing Crisis: New Technologies, Obsolete Organisations", *Harvard Business Review*, September-October, pp. 77-85.
- Haynes, R. and Abernathy, W. (1980), "Managing Our Way to Economic Decline", *Harvard Business Review*, January-February.
- Hedlund, G. and Kverneland, A (1985), "Are Strategies for Foreign Market Entry Changing ? The Case of Swedish Investment in Japan", *International Studies of Management & Organisation*, **15**, pp. 41-59.
- Helleiner, Gerald K. (Ed.), (1982), *Economic, Theory and North-South Negotiations*, University of Toronto Press, Toronto & Buffalo.
- Hennart, J. (1982), *A Theory of Multinational Enterprise*, Ann Arbor, University of Michigan Press.
- Hennart, J. (1989), "Can the New Forms of Investment Substitute for the "Old Forms?" A Transaction Costs Perspective", *Journal of International Business Studies*, Summer, pp. 211-233.
- Hertner, P. and Jones, G. (1986), *Multinationals: Theory and History*, Gower Publishing Company Ltd., Hants.
- Hill, C. and Kim, W. (1988), " Searching for a Dynamics Theory of the MNEs: A Transaction Cost Model", *Strategic Management Journal*, **9** (Special Issue), pp. 93-194.
- Hill, C. and Pang, E. F. (1991), "Export of Technology from a very Open Economy: The Case of Singapore", *World Development*, May.

Hill, C., Hwang, P. and Kim, W. (1990), "An Eclectic Theory of Choice of International Entry Mode", *Strategic Management Journal*, 11, pp. 117-128.

Hill, C., Hwang, P. and Kim, W., "Searching for a Dynamic Theory of the Multinational Enterprise: A Transaction Cost Model". *Strategic Management Journal*, Special Issue, No. 9 pp. 93-104.

Hirsh, S. and Zviadan (1974), "Firm Size and Export Performance", *World Development*, 2, No. 7, July, pp. 41-46.

Hogwood, B. and Gunn, L. (1984), *Policy Analysis in the Real World*, Oxford University Press.

Holfheinz, Roy Jr. and Calder, Kent E. (1982), *The Eastasian Edge*, Basics Books Inc. Publishers.

Hood, N. and Vahalre, J. E. (Eds.), (1988), "Strategic Global Competition", *Selected Papers from the Prince Symposium of the Institute of International Business, Stockholm School of Business*, Croom Helen, London.

Hood, N. and Young, S. (1979), *The Economics of Multinational Enterprise*, Longman Publishing Ltd., London.

Hood, N. and Young, S. (1983), *Multinationals Investment Strategies in the British Isles: A Study of MNE in the Assited Areas and in the Republic of Ireland*, Part 4, HMSO, London.

Horaguchi, H. and Toyne, B. (1990), "Setting the Record Straight: Hymer, Internalisation Theory and Transaction Cost Economics", *Journal of International Bussiness Studies*, Third Quarterly, pp. 487-494.

Hornell, E. and Vahlne, J. (1986), *Multinationals: The Swedish Case*, Croom Helm, London.

Horst, T. O. (1972), "Firm and Industry Determinants of the Decision to Invest Abroad: An Empirical Study", *Review of Econmics and Statistics*, pp. 258-266.

Houghton, A. B. (1990), "The Rising Cost of Cheap Labour", *Electronoics Asia*, June, pp. 9-10.

Howard, K. and Sharp, J.K. (1983), *The Management of a Student Research Project*, Gower Publishing Ltd., Hampshire.

Howard, Seymour (1987), *The Multinational Construction Industry*, Croom Helm Ltd., Kent.

Hughes, Helen (1989), "Catching Up: The Asian Newly Industrialising Economies in the 1990s", *Asian Development Review*, 7, No. 2, pp. 128-144.

Hughes, Helen and You, Poh Seng (Eds.), (1969), *Foreign Investment and Industrialisation in Singapore*, The University of Wisconsin Press, Madison.

Hymer, S. (1976/1960), "The International Operations of National Firms: A Study of Direct Investment", *Doctoral Dissertation*, MIT.

Hymer, S.(1968), "La Grande Firme Multinatinale", *Revue Economioque*, 14(b), pp. 949-973.

International Chamber of Commerce, Singapore (1991/2), *Investors Guide to the Econimic Climate of Singapore*.

ISAR, UN (1990), *Inter-governmental Working Group of Experts on International of Accounting and Reports*.

Jacoby, N. (1972), "The Multinational Corporation". In: *Multinational Enterprise in Transition*. (Eds.), Kappor, A. and Grub, D., The Darwin Press, Princeton.

Jarret, I. (1989), "Western Australia Woos Asian Investors", *Asian Business*, 25, No. 12, December, pp. 50-60.

Jelinek, M. and Golhar, J. D. (1983), "The Interface between Strategy and Manufacturing Technology", *Columbia Journal of World Business*, pp. 26-36.

Jo, S. H. (1981), "Overseas Direct Investment by South Korean Firms: Directions and Patterns". In: *Multinationals from Developing Countries*. (Eds.), Kumar, M. and McLeod, M., Lexington Books.

Jogut, P. (1991), "International Dimensions of Managing Technology", *Journal of General Management*, 16, No. 3, Spring.

Johanson, J and Vahlne, J. E. (1988), "Internationalisation in Industrial systems: A Network Approach". In: *Strategies in Global Competition*. (Eds.), Hood, N. and Vahlne, J. E., Croom Helm, London.

Johanson, J and Vahlne, J. E. (1990), "The Mechanisms of Internationalisation". *International Marketing Review*, 7, No. 4.

Johanson, J. and Mattson L-G. (1987), "Interorganisational Relations in Industrial Systems: A Network Approach Compared with the Transaction-Cost Approach", *International Studies of Management and Organisation*, XVII, No. 1 pp.34-48.

Johanson, J. and Mattsson, L. G. (1986), "International Marketing and Internationalisation Processes: A Network Approach". In: *Research in International Marketing*. (Eds.), Paliwoda, S. and Turnbull, P., Croom Helm, London.

Johanson, J. and Vahlne, J. E. (1977), "The Internationalisation Process of the Firm: A Model of Knowledge Development and Increasing Foreign Market Commitment", *Journal of International Business Studies*, Spring/Summer.

Johanson, J. and Wiedersheim-Paul, F. (1975), "The Internationalisation of the Firm: Four Swedish Cases", *Journal of Management Studies*, 12, pp. 305-322.

Jon, Woronoff (1986), "Singapore, Capitalist Haven". In: *Asia's Miracle Economies*. (Ed.), Sharpe, M. E., New York.

Jones, G. (1986), *British Multinationals: Origins, Management and Performance*, Gower.

Jones, G. (1986a), "The Chocolate Multinationals: Cadbury, Fry and Rowntree, 1918-1939". In: *British Multinationals*. (Ed.), Jones, G., Gower, pp. 96-118.

Jones, G. (1986b), "Courtaulds in Continental Europe". In: *British Multinationals*. (Ed.), Jones, G., Gower, pp. 119-136.

Jones, G. (1986c), "The Multinational Expansion of Dunlop". In: *British Multinationals*. (Ed.), Jones, G., Gower, pp. 211-242.

- Jones, G. (1986d), "Performance of British Multinationals: 1890-1945". In: *Multinationals: Theory and History*. (Eds.), Hertener and Jones, G., Gower.
- Julian, S. and Keller, R. (1991), "Manufacturing R&D Siting: Corporate Strategies for Success", *Columbia Journal of World Business*, Fall, pp.47-57.
- Kay, N. M. (1991), "Multinational Enterprise as Strategic Choice: Some Transaction Cost Perspectives", in Casson, M. (Ed.), *The Nature of Transnational Firms*, Roger Sugden, Routledge, London.
- Kaynak, Erdener & Kam, Hon Lee.(Eds.), (1989), *Global Business: Asia-Pacific Dimensions*, Routledge, London.
- Keegan, W. J. and Heena, D. A. (1979), "The Rise of Third World Multinationals", *Harvard Business Review*, January-February.
- Keller, R. and Julian, S. (1991), "The Multinational R&D siting and Corporate Strategies for Success", *The Columbia Journal of World Business*, Fall, pp. 46-57.
- Kelly, M. and Phillippines, G. (1988), "Concept Analysis of Foreign Investment Evaluation Practices by US-based Mnaufacturing Multinational Companies", *Journal International Business Studies*, Winter, pp. 302-315
- Kennedy, M. (1976),Generalising from Single Case Studies, *Evaluation Quarterly*, No. 3, pp.661-78.
- Kersen, A. (1986), Philosophical Foundations for the Constitution of Critical Knowledge in M. McLaughlin (ed.) in *Communication Year Book*, Vol. 9, pp. 756-74, Beverly Hills, California, Sage.
- Khan, Khushi M. (Ed.), (1986), *Multinationals of the South: New Actors in the International Economy*, German Overseas Institute, Frances Printer Publishers, Hamsbury, London.
- Kidder, L. (1981),Qualitative Research and Quasi-Experimental Frameworks, in M.Brewer et al (ed), *Scientific Inquiry and the Social Sciences*, San Francisco, Jossey-Bass.
- Kim, K. (1988), "Korea in the 1990s: Making the Transition to a Developed Economy", *World Development*, 16, No. 1, pp. 7-18.

- Kim, K. I. Kim, K. H. and Lesage, J. P. (1986), "An Empirical Study of the Transactional Production Sharing of the Asian NICs with Japan", *Journal of International Business Studies*, Summer, pp. 117-130.
- Kim, W. S. and Lyn, E. (1990), "FDI Theories, Entry Barriers and Reverse Investment in the US Manufacturing Industries", *Journal of International Business Studies*, **18**, pp. 53-66.
- Kim, W. S. and Lyn, E. (1992), "FDI Theories and the Performance of Foreign Multinationals Operating in the US", *Journal of International Business Studies*, **21**, No. 1, 1st Quarter, pp.41-54.
- Kim, W. S. and Yun, K. Y. (1988), "Fiscal Policy and Development in Korea", *World Development*, **16**, No. 1, pp. 65-84.
- Kindleberger, C. P. (1969), *American Business Abroad: Six Lectures on Direct Investment*, Yale University Press, New Haven.
- Kindleberger, C. P. (1984), *Multinational Excursions*, MIT Press, Cambridge, Massachusetts.
- Kindleberger, C. P. (1988), "The "New" Multinationalisation of Business", *ASEAN Economic Bulletin*, **5**, pp. 113-124.
- Kindleberger, C. P. and David, B. Andretsch (1983), *The Multinational Corporation in the 1980s*, MIT Press, Cambridge, Massachusetts.
- Kinnear, T.C. and Taylor, J.R. (1987), *Marketing Research: An Applied Approach*, 3rd Edition, McGraw-Hill International edition, Marketing Series
- Kirk, J. and Miller, M. (1986), *Reliability and Validity in Quality Research*, Beverley Hills, Sage Publications.
- Knickerbocker, F. T. (1973), *Oligopolistic Reaction and the Multinational Enterprise*, Harvard University Press, Boston.
- Koepp, S. (1987), "Taking on the World", *Time*, October 19, pp. 15.
- Kogut, B. (1985), "Designing Global Strategies: Profiting from Operational Enterprise", *Sloan Management Review*, **26**, Fall, pp. 27-38.

- Kogut, B. (1985a), "Designing Global Strategies: Corporate and Competitive Value-Added Chain", *Sloan Management Review*, **25**, Summer, pp. 15-28.
- Kogut, B. (1988), "Joint Venture: Theoretical and Empirical Perspectives", *Strategic Management Journal*, **9**, 3, pp. 319-332.
- Kohlhagen, S. W. (1977), "Exchange Rates Changes, Profitability and Direct Foreign Investment", *The Southern Economic Journal*, **44**, pp. 43-52.
- Kojima, K. (1978), *Direct Foreign Investment: A Japanese Model of Multinational Business Operation*, Croom Helm, London.
- Kojima, K. (1982), "Macroeconomic Versus International Business Approach to Direct Foreign Investment", *Hitosubashi Journal of Economics*, **23**, pp. 1-19.
- Kojima, K. (1985), "Towards a Theory of Industrial Restructuring and Dynamics Comparative Advantage", *Hitosubashi Journal of Economics*, **26**, pp. 135-145.
- Kojima, K. and Ozawa, T. (1984), "Micro- and Macro-economic Models of Foreign Direct Investment: Towards a Synthesis", *Hitosubashi Journal of Economics*, **25**, pp. 1-10.
- Koo, B. Y. (1985), "Korea". In: *Multinational Enterprises, Economic Structure and International Competitiveness*. (Ed.), Dunning, J. H., John Wiley and Sons, London.
- Kotabe, M. and Okoroafo, S. (1990), "A Comparative Study of European and Japanese Multinational Firms Marketing Strategies and Performance in the US", *Management International Review*, **30**, No. 4, pp. 353-370.
- Kraar, L. (1981), "Make Way for The New Japans", *Fortune*, August 10, pp. 176-184.
- Krause, L. B. (1988), "Hongkong and Singapore: Twins or Kissing Cousins?", *Economic Development and Cultural Change*, **36**, No. 3, pp. 545-566.
- Krause, L. B., Koh, A. T. and Lee, Y. (1987), *The Singapore Economy Reconsidered*, Institute of Southeast Asian Studies, Singapore.

- Kumar, K. and Kim, K. Y. (1984), "The Korean Manufacturing Multinationals", *Journal of International Business Studies*, **15**, Spring/Summer, pp. 45-62.
- Kumar, Manmohan (1984), *Growth Acquisition and Investment*, Cambridge University Press, UK.
- Kume, G. (1991), "Japanese Multinationals Investments in the EC: Motivations and Locations", *EXIM Review*, **10**, No. 1.
- Kwag, Dae-Hwan (1987), "Korea's Overseas Investment", *Korea Exchange Bank Monthly Review*, September, pp. 3-13.
- Laage-Hellman, J. (1989), *Technological Development in Industrial Networks*, Acta Universitatis Upsaliensis.
- Lacsamana, J. (1992), "Singapore: A Titled Playing Fields?", *Asia Business*, **28**, No. 3, March.
- Lall, S (1980a), "Monopolistic Advantages and Foreign Involvement by US Manufacturing Industry", *Oxford Economics Paper*, **32**, pp. 102-122.
- Lall, S. (1980b), *The Multinational Corporations: Nine Essays*, Macmillan Press Ltd., UK.
- Lall, S. (1980c), "Developing Countries as Exporters of Industrial Technology", *Research Policy*, **9**, No. 1.
- Lall, S. (1983), *The New Multinationals: The Spread of Third World Enterprises*, John Wiley & Sons, Singapore.
- Lall, S. (1984), "Exports of Technology by Newly-industrialising Countries: An Overview", *World Development*, **12**, No. 5/6, pp. 471-480.
- Lamfalussy, A. (1961), *Investment and Growth in Mature Economies: The Case of Belgium*, Oxford University Press.
- Larimo, J. (1985), "The Direct Investment Behaviour of Finnish Companies", *Paper Presented at the 11th European International Business Association Conference*, December 15-17, Glasgow.
- Lecraw, D. (1977), "Direct Investment by Firms from Less Developed Countries", *Oxford Economic Papers*, pp. 442-457.

Lecraw, D. (1980), "Intra-Asian Direct Investment: Theory and Evidence from the Asian Region", *UMBC Review*, **16**, pp. 1-6.

Lecraw, D. (1984), "Bargaining Power, Ownership and Profitability of Transnational Corporations in Developing Countries", *Journal of International Business Studies*, Winter, pp. 8-25.

Lecraw, D. (1985), "Singapore". In: *Multinational Enterprises, Structure and International Competitiveness*. (Ed.), Dunning, J.H., John Wiley & Sons, London.

Lee, J. and Blevin, D. (1990), "Profitability and Sales Growth in Industrialised and Newly Industrialising Countries", *Management International Review*, 30, 1st Quarter, pp. 87-100.

Lei, D. (1989), "Strategies for Global Competition", *Long Range Planning*, 22, No. 1, pp. 102-106.

Leipziger, D. M. (1988a), "Industrial Restructuring in Korea", *World Development*, pp. 121-135.

Leipziger, D. M. (1988b), "Korea's Transition to Maturity", *World Development*, 16, No. 1, pp. 1-6.

Leontiades, J. (1986), "Going Global: Global Strategies Versus National Strategies", *Long Range Planning*, 19, No. 6, pp. 96-104.

Lessard, D. and Lightstone, J. (1981), *The Impact of Exchange Rates on Operating Profits: New Businesses and Financial Response*. Mimeo, Lighthouse-Lessard Associate.

Letto-Gillies (1991), *International Production, Trends, Theories and Effects*, Policy Press, Cambridge.

Levin, J. and Bynne, J. (1986), "Corporate Odd Couple", *Business Week*, July 2, pp. 100-105.

Levy, B. and Kuo, W. (1991), "The Strategic Orientation of Firms and the Performance of Korea and Taiwan in Frontier Industries: Lessons from Comparative Case Studies of Keyboard and Personal Computer Assembly", *World Development*, 19, No. 4, pp. 363-374.

- Levy, Brein, (1988), "Korean and Taiwanese Firms as International Competitors: The Challenges Ahead", *Columbia Journal of World Business*, Spring.
- Li, J. and Guisinger, S., (1991), "How Well Do Foreign Firms Compete in the United States?", *Business Horizon*, **34**, No. 6, pp. 49-53.
- Lilienthal, J. (1960), "Management of the Multinational Corporation". In: *Management and Corporations, 1985*. (Eds.), Anshen, M. and Bach, G., McGraw-Hill, New York.
- Lim, C. Y. & Lloyd, Peter J. (1986), *Singapore: Resources & Growth*, Oxford University Press, Singapore.
- Lim, C. Y. (1988), *Policy Options for Singapore Economy*, McGraw-Hill Book Company, London.
- Lim, H. K. (1988), "Problems and Prospects of Singapore Multinational Corporations", *Unpublished Advanced Study MBA Project*, National University of Singapore, Singapore.
- Lim, L. (1989), "The Rise of NICs and New NICs in the East and Southeast Asia", *Southeast Asia Business*, **19**, Winter, pp. 1-4.
- Lim, L. (1990), "Economic Reforms in Southeast Asia", *Southeast Asia Business*, **23**, pp. 2-4.
- Lim, L. Y. and Pang, E. F. (1988), "Foreign Direct Investment and Industrial Restructuring in Asia", *Paper Presented at OECD Meeting*, Paris.
- Lim, L.Y. (1983), "Singapore's Success: The Myth of Free Market Economy", *Asian Survey*, **23**, No. 6, pp. 752-764.
- Lim, L.Y. (1988), "Trade in Manufactures: A Singapore Perspective", *Southeast Asian Studies*, **25**, No. 3, pp. 317-341.
- Limlingan, V. (1986), "The Overseas Chinese in ASEAN: Business Strategies and Management Practices", *Vita Development Corporation*, Manila.
- Lindholm, C. (1979), "Still Muddling Through, Not Yet Through", *Public Administration Review*, pp. 517-526.

Lindqvist, M. (1988), "Internationalisation of Small technology Based Firms three Illustrative Case Studies on Swedish Firms", *Research Paper 88/15*, Institute of international Business, Stockholm School of Economics.

Little, I., Scitovsky, T. & Scott Maurice (1970), *Industry and Trade in Some Developing Countries: A Comparative Study*, OECD, Paris, Oxford University Press, London.

Logue, D. E. and Willet, T. D. (1977), "The Effects of Exchange Rate Adjustment on International Investment". In: *The Effects of Exchange Rate Adjustment*. (Eds.), Clark, Peter B., Logue, D. and Sweuney, R. J., Washington, pp. 137-150.

Love, J. and Scouller, M. (1990), "Growth by Acquisitions: The Lessons of Experience", *Journal of General Management*, **15**, No. 3, p. 190.

Low, P. S. (1984), "Singapore Based Subsidiaries of US Multinationals and Singaporean Firms: A Comparative Study", *Asian Pacific Journal of Management*, **2**, No. 1, pp. 29-39.

Lucas, W.A. (1979), *The Case Survey Method*, Santa Monica, CA: Rand Corporation.

Magaziner, C. and Patinkin, M. (1989), *Fast Heat: How Korean Won the Microwave War*, Jan.-Feb., pp. 83-91.

Magee, S. P. (1977), "Information and the Multinational Corporation: An Appropriability Theory of Direct Foreign Investment". In: *The New International Order*. (Ed.), Bhagwati, J. N., MIT Press, Cambridge, Massachusetts.

Martin, J. and Jarillo, J. (1991), "Coordination Demands of International Strategies", *Journal of International Business Studies*, Third Quarter, pp. 429-444.

McCauley (Ed.), (1990), "Competing for National Prosperity", *Harvard Business Review*, pp. 188-198.

McClaim, D. (1983), "FDI in the US: Old Currents, "New Waves" and the Theory of Direct Investment". In: *The Multinationals Corporations in the 1980s*. (Eds), Kindleberger, C. and Audretsch, B., MIT Press, Cambridge, pp. 278-338.

- McClinintock, C., Brannon, D. and Moody, S.M. (1979), Applying the Logic of Sample Surveys to Qualitative Case Studies: The Case Cluster Method, *Administrative Science Quarterly*, Vol.24, December.
- McCormick, J. (1990), "A New Generation of Taiwan Chip Makers Hopes to Defy the Odds", *Electronics Business Asia*, July/August, pp. 38-50.
- McDermott, M. (1989), "The Internationalisation of South Korean Companies", *Acquisition Monthly*, August, pp. 50-53.
- McDermott, M. (1991), "Acer: A Case Study of Taiwan's Leading Manufacturer of Personal Computers", *Working Paper 91/1, Strathclyde International Business Unit*, Department of Marketing, University of Strathclyde, Glasgow, UK.
- McDermott, M. (1991a), "Taiwan's Industry in World's Markets: Target Europe", Special Report 2111, *The Economist Intelligence Unit*, March.
- McDermott, M. (1991b), "The Internationalisation of the South Korean and Taiwanese Electronics Industries: The European Dimension", In *Europe and the Multinationals: Issues and Response for the 1990s*, Young, S. and Hamill, J. (Eds.) Edward Elgar, Cheltenham, Glos.
- McDermott, M. (1991), "Non-Conventional MNEs", Unit 3, "Multinationals and Development", *MSc in International Marketing by Open Learning*, University of Strathclyde Press, Glasgow.
- McDermott, M. and Young, S. (1989), "South Korea's Industry: New Directions in World Markets", Special Report No. 2005, *Economist Intelligence Unit*, London.
- McDonald, I. (1986), "How Singapore Makes Central Planning Works", *Long Range Planning*, 19, No. 1, pp. 38-44.
- Merritt, R. B. (1991), "Can Taiwan Make the Great Leap Forward?", Special Report, *Electronics World News*, June 17, pp. 21-33.
- Merritt, R. B. (1991a), "Taiwan Expansion Plans Take in the Whole World", *Electronics World News*, June 17, pp. 1 and 40.
- Miles, M.B. (1979), Qualitative Data as an Attractive Nuisance: The Problem of Analysis, *Administrative Science Quarterly*, Vol. 24, December, pp. 590-601.

- Miles, M.B. and Huberman, A.M. (1984), *Analysing Qualitative Data: A Source Book for New Methods*, Beverly Hills, CA: Sage.
- Min, H. C. and Brewer, T. (1987), "Foreign Direct Investment Theories by Korean Firms: An Analysis with FDI Theories", *Asia Pacific Journal of Management*, **4**, No. 2, January, pp. 90-103.
- Ministry of Communications and Information (1991), *Singapore Facts and Figures*, Various Years.
- Ministry of Trade & Industry (1986), *Report of the Economic Committee - The Singapore Economy: New Directions*, February.
- Ministry of Trade & Industry (1991/92), *Economic Survey of Singapore*, Second Quarter, Singapore National Printers Ltd., Singapore.
- Mintzberg, H. (1979), An Emerging Strategy of 'Direct' Research, *Administrative Science Quarterly*, December, pp. 582-89.
- Mirror* (1989), "Local Companies: Packed and Ready to Move Offshore in Search of New Opportunities", **25**, No. 14, Ministry of Information and Communications, Singapore.
- Mirror* (1989a), "Upholding Free Trade", **25**, No. 1, Information Division, Ministry of Communications and Information, Singapore.
- Mirror* (1991), "Nurturing Local Companies", **27**, No. 6, June, Information Division, Ministry of Communications and Information, Singapore, pp. 5-7.
- Mirza, Hafiz (1986), *Multinationals and the Growth of the Singapore Economy*, Croom Helm, London & Sydney.
- Monkiwiewicz, J. (1986), "Multinationals of Developing Countries: Some Emerging Characteristics", *Management International Review*, **26**, No. 3.
- Montagu-Pollock, M. (1989), "Second Passport for Hongkong Firms: Taking Flight to Safer Shores", *Asian Business*, **25**, No. 12, December, pp. 68-70.
- Montagu-Pollock, M. (1991), "All the Right Connections", *Asian Business*, **27**, No. 1, January, pp. 20-24.

- Montagu-Pollock, M. (1991), "Japan and Korea: Asia's New Romance?", *Asian Business*, **27**, No. 4, April, pp. 24-30.
- Montagu-Pollock, M. (1992), "Hard School of Takeover", *Asian Business*, **28**, No. 3, March, pp. 46-52.
- Morris, J. (1988), "The Who, Why, and Where of Japanese Manufacturing Investment in the UK", *Industrial Relations Journal*, **19**, No. 1, pp. 30-40.
- Murphy, J.T. (1980), *Getting the Facts: A Fieldwork Guide for Evaluation and Policy Analysts*, Santa Monica, CA: Goodyear.
- Musgrave, P. (1975), "Direct Investment Abroad and the Multinationals: Effects on the United States Economy", *USGPO*, Washington, DC.
- Naisbitt, J. and Aburdene, P. (1990), *Mega-Trends 2000*, Sidgwick and Jackson, London.
- Nalven, C. (1990), "Trade and Investment: Asia Bubbles with Potentials", *Asian Business*, **26**, No. 5, pp. 63-72.
- Ng, L. (1989), "Yeo Takes a Bite of American Market with Backing from the Singapore Government", *Asian Business*, **25**, No. 10, October.
- Ng, L. (1990), "Companies: Singapore Aerospace Flying High on New freedom", *Asian Business*, **26**, No. 12, December, pp. 12.
- Ng, L. (1990a), "Unique Experiment in Corporation: Indonesia's Batam Island is Set to Take off as Singapore's Industrial Zone", *Asian Business*, **28**, No. 8, August, pp. 60-62.
- Nordstorm, K. (1990), *The Internationalisation Process of the Firm in a New Perspective*, Institute of Business, Stockholm.
- Ohlin, B., Hesselborn, P. O. and Wijkman, P. M. (Eds.), (1977), *The International Allocation of Economic Activities*, Macmillan, London.
- Ohmae, Kenichi (1989), *Triad Power*, Collins, London.
- Ohmae, Kenichi (1990), *The Borderless World: Power and Struggle in the Interlinked Economy*, Collins, London.
- Ooi, Guat Tin (1990), "Singapore Targets for Steadier Growth", *Asian Business*, **26**, No. 10, October, pp. 30-35.

- Ooi, Guat Tin (1990), "Singapore: New Generation Keeps the Faith", *Asian Business*, **26**, No. 10, October, pp. 36-40.
- Ooi, Guat Tin (1991), "Forging a New Body", *Asian Business*, **27**, No. 4, April, p. 6.
- Ooi, J. and Chaing, H. (Eds.), (1969), *Modern Singapore*, University of Singapore Press, Singapore.
- Ozawa, T. (1979), "International Investment and Industrial Structure: New Theoretical Implications from Japanese Experience", *Oxford Economic Papers*, **31**, No. 1.
- Ozawa, T. (1982), *Multinationals, Japanese Style*, Princeton University Press, USA.
- Ozawa, T. (1991), "Japanese Multinationals and 1992". In: *Multinationals and Europe 1992*. (Eds.), Burgenmeier, B. and Mucchielli, J., Routledge, London.
- Pang, E. F. and Kormaran, R. (1985), "Singapore Multinationals", *Columbia Journal of International Business*, Summer, pp. 35-43.
- Park, S. I. (1988), "Labour Issues in Korea's Future", *World Development*, **16**, No. 1, pp. 99-120.
- Pascale, R. (1990), *Managing on the Edge*, Simon and Schuster, New York, pp. 16.
- Passchaert, S. (1979), *Transfer Pricing and Multinational Corporations*, Saxon House, ECSIM, Farnbough.
- Patel, P. and Pavitt, K. (1987), "A Comparison of Technological Activities of in FR Germany and the UK", *National Westminster Bank Quarterly Review*, May, pp. 27-42.
- Patel, P. and Pavitt, K. (1988), "The International Distribution and Determinants of Technological Activities", *Oxford Review of Economic Policy*, Winter, **4**, pp. 35-55.
- Patel, P. and Pavitt, K. (1990) "Large Firms in the Production of the World's Technology: An Important Case of Non-Globalisation", *Journal of International Business Studies*, Summer.

- Pavitt, K. (1988), "International Patterns of Technological Accumulation". In: *Strategies in Global Industries* (Eds.), Hood, N. and Vahlne, J., Croom Helm, London.
- Pentrose, E. T. (1956), "Foreign Investment and Growth of the Firm", *Economic Journal*, **60**, pp. 220-235.
- Perlitz, M. (1985), "Country-Portfolio Analysis: Assessing Country Risk and Opportunity: A Comparative Study", *Long Range Planning*, **18**, No. 4, pp. 11-26.
- Peters, T. and Waterman, R. H. (1985), *In Search of Excellence: Lessons from America's Best Run Companies*, Harper and Row, New York.
- Pettigrew, A. and Whipp, R. (1992), *Managing Change for Competitive Success*, Blackwell Publishers Ltd., Oxford.
- Philliber, S.G. Schwab, M.R. and Samshoss, G. (1980), *Social Research: Guides to a Decision-Making Process*, Hasca, IL: Peacock.
- Porter, M. (1980), *Competitive Strategy*, The Free Press, New York.
- Porter, M. (1985), *The Competitive Advantage*, The Free Press, New York.
- Porter, M. (1986), *Competition in Global Industries*, Harvard Business School Press, Boston.
- Porter, M. (1986a), "Corporate Strategy: The State of Strategic Thinking", *Economist*, May 23, 1987, pp. 23-28.
- Porter, M. (1990), *The Competitive Advantage of Nations*, The Free Press, New York.
- Poynter, T. (1989), *Multinationals Enterprises and Government Intervention*, Croom Helm, London.
- Putti, Joseph M. & Chong, Thomas F. H. (Ed.), (1985), "American and Japanese Management Practices in their Singapore Subsidiaries", *Asia Pacific Journal of Management*, **2**, No. 2, pp. 106-140.
- Pyatt, R. (1992), "Recent Research Developments into Dyadic and Organisational Network Strategies of Mainland and Overseas Chinese, Korean and Japanese Traders", in Salle, R. Spencer, R. and Valla, J-P. (Eds.), *Business Networks in an International Context-Recent research*

Developments, 1, Proceedings of the 8th IMP Conference, Lyon-France, 3-5th September 1992.

Rapaport, A. (1986), *Creating Shareholder Value*, Macmillan, New York.

Regnier, P. (1988), *Small and Medium Enterprises in the Asian NIEs*, October 24, Modern Asia Research Centre, Geneva.

Research in International Business and Finance (1984), *Third World Multinationals: The Rise of Investments from Asian Developing Countries*, pp. 127-143.

Robinson, R.D. (Ed.), (1987), *Direct Foreign Investment: Cost and Benefits*, Praeger, N. Y. Westport, London.

Robock, S. and Simmonds, K. (1983), *International Business and Multinational Enterprises*.

Root, F. R. (1987), *Entry Strategies for International Markets*, Lexington Books, D.C. Heath and Co., Lexington, Massachusetts.

Roscoe, B. (1985), "Getting Round Protectionism by the Direct Route", *Far Eastern Economic Review*, June 13, pp. 82-3.

Rugman, A. (1976), "Risk Reduction by International Diversification", *Journal of International Business Studies*, Fall-Winter, pp. 75-80.

Rugman, A. (1977), "Risk, Direct Investment and International Diversification", *Weltwirtschaftliches Archiv*, pp.114.

Rugman, A. (1980), "Internalisation as a General Theory of Foreign Direct Investment: A Reappraisal of the Literature", *Weltwirtschaftliches Archiv*, 116, pp. 365-379.

Rugman, A. (1980a), *Multinationals in Canada: Theory, Performance and Economic Impact*, Boston.

Rugman, A. (1983), "The Performance of US and European Multinational Enterprises, 1970-1979", *Management International Review*, 23, No. 2, pp. 4-14.

Rugman, A. (1987), *Outward Bound: Canadian Investment in the United States*, C. D. Howe Institute, Toronto.

- Rugman, A. and Eden, L. (Eds.), (1985), *Multinationals and Transfer Pricing*, Croom Hill, London.
- Rugman, A. M., Lecraw, D. J. and Booth, L. D. (1987), *International Business: Firm and Environment*, McGraw-Hill Book Company, London.
- Rugman, R. (1981), *Inside the Multinationals: The Economics of Internal Markets*, Croom Helm, Columbia University Press.
- Rugmen, A. (1981), *Inside the Multinationals: The Economies of Internal Markets*, Croom Helm, Columbia University Press.
- Rumelt, R. (1974), *Strategy, Structure and Economic Performance*, Harvard University Press.
- Sagafi-nejad, T. (1986), "Third World Transnationals: Recent Literature", *The CTC Reporter*, No. 21.
- Samson, Danny (1991), *Manufacturing and Operations Strategy*, Prentice Hall, Singapore.
- Sandhu, S. K. Wheathley, P. (1989), *Management of Success: The Moulding of Modern Singapore*, Institute of Southeast Asian Studies, Singapore.
- Savary, J. (1984), *French Multinationals*, Frances Printer Publishers, London.
- Sawers, D. (1986), "The Experience of German and Japanese Subsidiaries in Britain", *Journal of General Management*, 12, No. 1, Autumn, pp. 5-21.
- Scaperlanda, A. E. (1974), *Trends, Composition and Determinants of US Direct Investment in Canada*, US Department of Commerce, Office of Foreign Investment, Washington.
- Schatzman, H. and Starauss, A. (1973), *Field Research*, Englewood Cliffs, Prentice Hall, NJ.
- Scherer, F. M. (1969), "Market Structure and the Stability of Investment", *The America Economic Review*, Papers and Proceedings, 59, pp. 72-79.

- Scott, W. R. (1965), Field Methods in the Study of Organisations, In: James G. March (Ed.), *Handbook of Organisations*, Chicago, R. and McNally, pp. 261-304.
- Selwyn, M. (1989), "Sober Reaction of Migration: The Business Migration Rainbow Often Ends in Disillusion, Not Gold", *Asian Business*, **25**, No. 9, pp. 24-30.
- Selwyn, M. (1990), "Corporate Strategy: Sewing Up the World", *Asian Business*, **26**, No. 6, pp. 60-62.
- Selwyn, M. (1991), "Japan and Korea: Asia's New Romance?", *Asian Business*, **27**, No. 4, April, pp. 24-30.
- Shaked, I. (1986), "Are Multinationals Corporations safer? *Journal of International Business Studies*, **17**, Spring, pp. 83-106.
- Shelton, L. (1988), "Strategic Business Fits and Corporate Acquisitions: Empirical Evidence", *Strategic Management Journal*, **17**, Spring, pp. 279-287.
- Shipman, M. (1981), *The Limitations of Social Research*, 2nd Edition, Longman, London.
- Sidharthan, N. and Lall, S. (1982), "Recent Growth of the Largest US Multinationals", *Oxford Bulletin of Economics and Statistics*, **44**, February, pp. 1-13.
- Silverman, D. (1985), *Qualitative Methodology and Sociology*, Gower Publishing Company.
- Silverman, D. (1985), *Qualitative Methodology and Sociology*, Hants, Hower.
- Simmonds, K. (1983), "Strategic Management Accounting". In: *Handbook of Management Accounting*. (Ed.), Fanning, D., Gower Publishing Co. Ltd., Hampshire.
- Simmonds, K. (1985), "Global Strategy: Achieving the Geocentric Ideal". *International Marketing Review*, Spring 1985, p. 17.
- Simon, H. (1960), *The New Science of Management Decision*, Prentice Hall, New York.

Singapore Bulletin (1990), "Singapore Firms Heads for Eastern Europe", December, pp. 4-5.

Singapore Bulletin (1991), "Singapore Business Leaders Hopes to Work Closely with Mexico", March, p. 5.

Singapore Bulletin (1991), "Singapore Manufacturing Commitments in Malaysia", March, pp. 4-5.

Singapore Bulletin (1992), "Singapore Government Ready to Invest in Joint Ventures with France", March, p. 4.

Singapore Bulletin (1993), "More Higher Value Added Activities", March, p.3.

Singapore Business (September 1989), "Singapore Inc. Goes Global", pp. 29-59.

Singapore Business Yearbook (1990), "The Third Wave: The Rise of Asian MNCs", pp. 46-49.

Singapore Economic Development Board (1988/89), *Yearbook and Annual Report*.

Singapore Economic Development Board (1989), *The SME Master Plan: Report on Enterprise Development*, SME Committee.

Singapore Economic Development Board (1989), "Wearnes Named as One of the Top 10 Companies to Shape Future World Business", *Singapore Investment News*, July, p. 2.

Singapore Economic Development Board (1990), *Singapore Investment News*, May-December.

Singapore Economic Development Board (1991/92), *Singapore Investment News*, Various Issues.

Singapore Economic Development Board (1992) *Yearbook and Annual Report*.

Singapore Economic Development Board (1992), "World Competitiveness Report-1990", *Singapore Investment News*, December, pp. 1-2.

Singapore Economic Development Board, (1991), *Leading International Companies in Manufacturing and Technical Services in Singapore* .

Singapore Trade and Development Board (1991/2), *Annual Report*.

Singapore Trade and Development Board (1993), *Singapore Trade News*, Various Monthly Reviews.

Skyles, W. (1990), "Taking Stock: Issues and the Literature on Validity and Reliability in Quality Research", *Journal of Market Research*, **33**, No.1.

Smith, G. (1990), "Bridges Across the Dire Straits", *Asian Business*, **26**, No. 6, June, pp. 58-59.

Smith, M.E., Thorpe, R. and Lowe, A. (1990), *Management Research: An Introduction*, Times Publishing Ltd., Singapore.

Smith, N. C. (1989), The Case Study: A Vital Yet Misunderstood Research Method for Management in: Roger Mansfield (Ed.) *Frontiers of Management*, Routledge, N.Y. pp. 50-63.

Solocha, A., Soshin, M. and Kasoff, M. (1990), "Determinants of FDI: A Case of Canadian Direct Investment in the US", *Management International Review*, **30**, No. 4, pp. 371-386.

South Survey (1989), "Asia 250", October, pp. 47-55.

Spaeth, A. (1983), "Foreign Electronics Brings High Technology to Singapore", *Asian Wall Street Journal*, December 3.

Stephenson, J.B. and Greer, L.S. (1981), Ethnographers in Their Own Cultures: Two Applications Cases, *Human Organisation*, **40**, No. 2, pp. 123-130.

Stopford, J. and Dunning, J. (1983), *Multinationals: Company Performance and Global Trends*, Macmillan, London.

Sudman, S. and Bradburn, N.M. (1982), *Asking Questions: A Practical Guide to Questionnaire Design*, San Francisco: Jossey-Bass.

Sullivan, D. and Bauerschmidt, A. (1990), "Incremental Internationalisation: A Test of Johanson and Vahlne's Thesis", *Management International Review*, **30**, No. 1, pp. 19-30.

Tan, A. H. and Ow, C. H. (1984), "Changing Patterns of Singapore's Trade and Development Since 1960". In: *Singapore: Twenty Five Years of Development*. (Eds.), You, P. S. and Lim, C. Y., Nan Yang Zaiobao (in Chinese).

Tanaka, H. (1988), *Personality in Industry: The Human Side of a Japanese Enterprise*, Printer, London.

Tay, B. N. (1986), "Singapore: The Structure and Causes of Manufacturing Sector Protection". In: *The Political Economy of Manufacturing Protection: Experience of ASEAN and Australia*. (Eds.), Finlay and Garnaut, R., Allen and Unwin, Sydney.

Teece, D. (1980), "Economies of Scope and Scope of the Enterprise", *Journal of Economic Behaviour and Organisation*, 1, No. 2.

Teece, D. (1986), "Profiting from Technological Innovation: Implications for Integration, Elaboration, Licensing and Public Policy", *Research Policy*, 15, pp. 285-305.

Teece, D. (1986), "Transactions Cost Economics and the Multinational Enterprise", *Journal of Economic Behaviour and Organisation*, 7, pp. 21-45.

The Economist (1988), "The Embarrassment of Riches: Singapore", October 15, p. 98.

The Economist, March 27 (1993), "A Survey of Multinationals: Everybody's Favourite Monsters", pp. 1-28.

The Singapore Government (1991), *Singapore: The Next Lap*, Times Publishing Ltd, Singapore.

The Straits Times Overseas Weekly Edition, November 7 (1992), "Help for Singapore Enterpreneurs Venturing Abroad", p.1

The Straits Times Overseas Edition, March 30 (1991), "Overseas Units Continue to Plague Yeo Hiap Seng", p. 19.

The Straits Times Overseas Weeekly Edition, April 22 (1989), "Go Global, Large Local Firms Urged: Government Willing to Help and Even Take a Stake in Venture".p.19.

The Straits Times Overseas Weekly Edition, January 2 (1993), "TBD to Help Firms Invest Overseas", p. 1

The Straits Times Overseas Weekly Edition (1992), "Companies May Have to Make Disclosures to Show Their Actual Profits", p. 20.

The Straits Times Overseas Weekly Edition, April 17 (1989), "Let's Team Up, Japanese Urged: Mr Goh". p.1.

The Straits Times Overseas Weekly Edition, December 26 (1992), "Wearnes Suffer Whopping Pre-tax Loss", p. 19

The Straits Times Overseas Weekly Edition, January 26 (1991), "ASEAN to Lead the Formation of Economic Bloc", p. 2.

The Straits Times Overseas Weekly Edition, March 2 (1991), "Good Time for Firms to Expand in the (South East Asian) Region: B. G. Lee", p. 18.

The Straits Times Overseas Weekly Edition, March 6 (1993), "Easier for Kids of Singaporeans Working Abroad to Join NUS", p. 6.

The Straits Times Overseas Weekly Edition, March 30 (1991), "Overseas Units Continue to Plague Yeo Hiap Seng Limited", p. 19.

The Straits Times Overseas Weekly Edition, May 16 1992, "Singapore-Taiwan Tie-up: A Bid to Co-operate in the Aerospace Sector", p. 20.

The Straits Times Overseas Weekly Edition, November 11 (1992), "EDB extends Overseas Finance Scheme to Businesses", p.18

The Straits Times Overseas Weekly Edition, October 5 (1991), "Singapore Scenes", pp. 2-15.

The Straits Times Overseas Weekly Edition, October 27 (1990), "Going Back to Beijing Carefully: Singapore Investment in China", p. 14.

The Straits Times Overseas Weekly Edition, October 27 (1990a), "Wing Tai Reaches New Accord on US Purchases", p. 20.

The Straits Times Overseas Weekly Edition, September 29 (1991), "Invest in the Soviet Union Now, Says P.M. Lee", pp. 1 & 24.

The Straits Times Overseas Weekly Edition, November 9 (1991), "Overseas Investments Hit All Time High in 1985", p.19.

The Straits Times, December 13 (1991), "Foreign Investments by Singapore Firms Trebled", p. 3.

The Straits Times, December 21 (1991), "Iran Seeks Singapore's Investments in Free Trade Zone", p. 19.

The Straits Times, December 21 (1991a), "Singapore Registers Unhappiness over the EC Move", p. 1.

The Straits Times, December 21 (1991b), "Yeo's Scale Down Operations in Hongkong", p. 20.

The Straits Times, October 4 (1991), "Strategic Economic Plan: Singapore Must Match the Capabilities of the Developed Nations", p.36.

The Straits Times, Overseas Weekly Edition, December 1 (1990), "Times Publishing Posts Higher Pre-Tax Profits of S\$45 Million", p. 19.

The Straits Times, Overseas Weekly Edition, February 6 (1993), "Invest Abroad: Government Picks Panel of Advisors", p.1

The Straits Times, September 10 (1990), "Wearnes Selling Off 49% Stake in Thai Subsidiary", p. 13.

Thomas, M., Chuang, P. M. and Lim, S. N. (1989), "Singapore Inc. Goes Global", *Singapore Business*, September, pp. 28-54.

Times Publishing Limited Company Annual Report (various years).

Ting, W. L. (1982), "The Product Development Process in NIC Multinationals", *Columbia Journal of World Business*, Spring, pp. 76-81.

Ting, Wen-Lee and Schives, Chi (1981), "Direct Investment and Technology Transfer from Taiwan". In: *Multinationals from Developing Countries*. (Eds.), Kumar, K. and McLeod, M. G., Lexington Book, Massachusetts.

Tolentino, P. (1987), "The Global Shift in International Production: The Growth of Multinational Enterprises from the Developing Countries: The Philippines", *Unpublished Ph.D Thesis*, University of Reading, UK.

Trade and Development Board, Singapore (1993), *Singapore Trade News*, Various Monthly Reviews.

- Tull, D.S. and Hawkins, D.I. (1980), *Marketing Research*, 2nd Edition, MacMillan.
- Tung, R. and Miller, E. (1990), "Managing in the 21st Century: The Need for Global Orientation", *Management International Review*, **30**, No. 3, pp. 96-105.
- Tung, R. L. and Miller, E. (1990), "Managing in the Twenty-first Century: The Need for Global Orientation", *Marketing International Review*, **30**, No. 1, pp. 5-18.
- Tweeddale, G. (1986), "Transatlantic Speciality Steel: Sheffield Highgrade Steel Firms and the USA, 1860-1940". In: *British Multinationals*. (Ed.), Jones, G., Gower, pp. 75-95.
- UNCTC (1987), "Transnational Corporations and the Electronics Industries of ASEAN economics", *UNCTC Current Studies*, Series A, No. 5, UNCTC, N.Y.
- UNCTC (1991), "University Curriculum on Transnational Corporations", *Economic Development*, **1**, United Nations.
- Vernon, R. (1966), "International Investment and International Trade in the Product Life Cycle", *Quarterly Journal of Economics*, **80**, pp. 190-207, Reprinted in Dunning, J.H. (Ed.), *International Investment*, Penguin Books, 1972, pp. 305- 325.
- Vernon, R. (1971), *Sovereignty at Bay: The Multinational Spread of US Enterprises*. Basic Books.
- Vernon, R. (1974), *Storm over the Multinationals: The Real Issues*, MacMillan, London.
- Vernon, R. (1979), "The Product Cycle Hypothesis in a New International Environment", *Oxford Bulletin of Economics and Statistics*, **4**, No. 41.
- Villegas, Bernardo (1992), "Private Thoughts on ASEAN", *Asian Business*, August, p. 42-44.
- Voss, C. (1988), "Success and Failure in Advanced Manufacturing Technology", *International Journal of Technology Management*, **3**, pp. 285-297.

- W.I. Carr (1989-1991), *Singapore/Malaysia Weekly Report*, (various monthly issues).
- Walker, R. (1982), "An Introduction to Applied Qualitative Research" In: R. Walker (Ed.), *Applied Qualitative Research*, Aldershot, Gower, pp. 3-26.
- Walters, M. F. (1989), "Manufacturing in the 1990s", *SRI Report No. 776*, Summer.
- Wanatabe, S. (1988), "Trends of Japan's Direct Investments in Europe", *EXIM Review*, 1, No. 1.
- Watson, C. (1982), "Counter-competition to Protect Home Markets", *Havard Business Review*, January/February, 65, pp.40-42.
- Wawm, B. (1982), *The Economics of the Asean Countries: Indonesia, Malaysia, Philippines, Singapore and Thailand*, MacMillan Press Ltd.
- Wax, R. (1971), *Doing Fieldwork*, University of Chicago Press, Chicago
- Wearnes Brother Limited Company Annual Report* (various years)
- Webb, E. and Weick, K. E. (1979), Unobstructive Measures in Organisational Theory: A Reminder, *Administrative Science Quarterly*, 24, December, pp.650-659.
- Wee, C. H., Farley, J. U. and Lee, S. K. (1989), "Corporate Planning takes off in Singapore", *Long Range Planning*, 22, No. 2, pp. 78-90.
- Welch, L. and Luostarinen, R. (1988), "Internationalisation: Evolution of a Concept", *Journal of General Management*, 14, No. 2 pp. 34-55.
- Wells, L. T. (1989), "FDI from the Newly Industrialising Economies", *The World Bank Industrial Series*, 22, December.
- Wells, L. T. Jr. (1977), "The Internationalisation of Firms from Developing Countries". In: *Multinationals from Small Countries*. (Eds.), Agmon, T. and Kindleberger, C., MIT Press, Cambridge, Massachusetts, pp.133-156.
- Wells, L. T. Jr. (1978), "Foreign investment from the Third World: The Experience of Chinese Firms from Hong Kong", *Columbia Journal of World Business*, Spring.

- Wells, L. T. Jr. (1983), *Third World Multinationals: The Rise of Foreign Investments from Developing Countries*, MIT Press, London.
- Wells, L. T. Jr. and Warren, V. (1979), "Developing Countries Investors in Indonesia", *Bulletin of Indonesia Economics Studies*, March, pp. 69-84.
- Wells, L. T. Jr. and Warren, V. (1979), "Developing Countries Investors in Indonesia", *Bulletin of Indonesia Economics Studies*, March, pp. 69-84.
- Wells, L.T. (1984), "Multinationals from Asian Developing Countries", *Research in International Business and Finance*, 4, (Part A), pp. 127-143.
- Westphal, L. E. et al (1984), "Republic of Korea", *World Development*, 12, No. 5/6, pp. 505-533.
- Westphal, L. E. Kim, L. and Dahlman, C. J. (1985), "Reflections on the Republic of Korea's Acquisition of Technological Capablity". In: *International Technology Transfer: Concepts, Measures and Comparison*. (Eds.), Rosenberg, N. and Frischtak, C., Praeger, N.Y.
- Whiting, E. (1985), *A Guide to Business Performance Measurement*, Macmillan Press, Hampshire.
- Whyte, W.F. (1984), *Learning from the Field: A Guide from Experience*, Beverly Hills, Sage.
- Wilkins, M. (1990), "European and N. American Multinationals, 1870-1914: Comparisons and Constrasts", in Casson, M., *Multinational Corporations*, Elgar Publishing Limited, London.
- World Bank (1989), "Foreign Direct Investemt from the Newly Industrialised Economies", *The World Bank Industry Series*, 22, December.
- World Bank Staff Working Paper* (1980), "The Process of Industrial Development and Alternative Development Strategies", 438, October.
- World Executive Digest* (1989), "Corporate Culture, Chinese Style: An Interview with Stan Shih, Chairman and CEO of Acer Group", November, pp. 58-62.
- Wortzel, H.V. and Wortzel, L. H. (1988), "Globalising Strategies for Multinationals from the Developing Countries", *Columbia Journal of World Business*, Spring.

Wu, F. (1991), "The ASEAN Economies in the 1990s and Singapore's Regional Role", *California Management Review*, Fall, pp. 103-114.

Yeo Hiap Seng Limited Company Annual Report (various years)

Yeung, N.C. (1988), "FDI by Hongkong Companies: A Review of Progress", *Unpublished M. Com Thesis*, University of Stirling, Glasgow, U.K.

Yin, R.K. (1981), The Case Study Crisis: Some Answers, *Administrative Science Quarterly*, March, 26, pp. 58-65.

Yin, R.K. (1981a), The Case Study as a Serious Research Strategy, *Knowledge: Creation, Diffusion, Utilisation*, 3 (September), pp. 97-114.

Yin, R.K. (1987), *Case Study Research: Design and Methods*, California, Sage.

Yin, R.K. and Moore, G.B. (1984), *The Utilisation of Research: Lessons from a Multi-Disciplined Field*, Washington, D.C. COSMOS Corporation.

Yoshida, M. (1987), *Japanese Direct Investment in the United States*, Praeger, New York.

Yoshihara, K. (1988), *The Rise of ERSATZ Capitalism in Southeast Asia*, Oxford University Press, Oxford.

Yoshihawa, H. (1985), "Multinational Growth and Japanese Manufacturing Enterprises in the Post War Period", *Proceedings of the International Conference and Business History*, University of Tokyo Press, Tokyo.

You, P. S. and Lim, C. Y. (1984), "Singapore: Twenty Five Years of Development", *Nan Yang Xing Zhou, Lianhe Zoobao* (in Chinese).

Young, Alywn (1992), "A Tale of Two Cities: Factor Accumulation and Technology Change in Hong Kong and Singapore", In: *Macroeconomics Annual - 1992*, National Bureau of Economic Research.

Young, A. K. (1979), *The Shosha Sogo, Japanese Trading Companies*, Westview Press, Colorado.

- Young, L. H. (1990), "Finding the Right Niche: Taiwan Electronics Companies See the Future in Advanced Technology", *Electronics Asia*, July/August, p. 5.
- Young, S. (1986), "The Internationalisation of Business", *University of Strathclyde Working Paper*, 86/8, July.
- Young, S. (1987), "Business Strategies and the Internationalisation of Business", *Managerial and Decision Economics*, 8, No. 1, pp. 31-40.
- Young, S. (1990), "Internationalisation: Introduction and Overview". In: *The Internationalisation of Business: Theory and Evidence: International Marketing Review*, 7, No. 4, MCB University Press Ltd.
- Young, S. (1992), "The Internationalisation of Business", *Management and Administration, Open Learning Unit*, Strathclyde Graduate Business School, University of Strathclyde, Glasgow.
- Young, S. and Hood, N. (1985), "Foreign Direct Investment and the Honkong Textiles and Clothing Industry", *Textile Outlook International*, 1, September, pp. 5-15.
- Young, S. Hamill, J. Davis, R. and Wheeler, C. (1989), *International Market Entry and Development: Strategies and Management*, Harvester Wheatsheaf, Prentice Hall, UK.
- Young, S. McDermott, M. and Dunlop, S. (1991), "The Challenge of the Single Market". In: *Multinationals and Europe 1992: Strategies for the Future*. (Eds.), Burgenmeier, B. and Mucchielli, J., Routledge, London.
- Yunker, P. (1982), *Transfer Pricing and Performance Evaluation in Multinational Corporations: A Survey Study*, Praeger, USA.