1. Introduction

1.1 Field of study

This dissertation aims to examine a specific facet of the operation of multinational corporations (MNCs) in developing countries - interaction of local firms with MNCs and the resultant benefits to the host country. The development of inter-firm linkages means that productivity improvements in the MNC may flow on and raise productivity in domestic firms. The economic and developmental costs and benefits of the presence of MNCs will be examined at the microeconomic level. The secondary economy-wide impacts of MNCs on national measures, such as exports, gross domestic product, and national income, are excluded from analysis in this dissertation. These effects are best dealt with through general equilibrium modelling which allows the incorporation of second round and feedback effects.

For the maximum benefits to be gained by local firms an MNC needs to become tied into the local economy, rather than operate as part of an isolated enclave. Government can play a role in encouraging this. An examination of policy solutions will point to a role for government in ensuring the maximisation of the obtainable benefits and the minimisation of potential costs from the presence of MNCs. Government intervention is viewed in economic terms as an attempt to overcome market failure.

The increasing openness of the Australian economy has made it possible, even essential, for Australian firms to develop global outlooks and strategies, and this may involve the establishment of subsidiaries in overseas locations. The linkages that the operations of Australian owned companies have formed with local firms operating in three developing countries - Indonesia, Malaysia, and Thailand - are

examined. Table 1.1 provides a comparison of some indicators of development for these countries with those for Australia.

Table 1.1: Development indicators

Indicator	Indonesia	Malaysia	Thailand	Australia
Population (millions mid 1994)	190.4	19.7	58.0	17.8
GNP per capita ($US 1994)	880	3 480	2 410	18 000
Adult illiteracy rate (%1995)	16	17	6	<5
Infant mortality (per 1000 live births 1994)	53	12	36	6
Life expectancy at birth (years 1994)	63	71	69	77
Percentage population with access to:				
- health services (1993)	-	88	58	99+
- safe water (1993)	42	78	-	99+
Prevalence of malnutrition (% under 5 years)	39	23	13	<5

Source: World Bank (1996)

1.2 Background

Just over 4.6 billion people, or more than 80 per cent of the world's population, live in developing countries (World Bank 1995). These countries lack effective infrastructure, health and education systems, which are important bases for sustainable economic growth. In these countries more than one billion people live in poverty - that is, have annual incomes of less than US$370 per year (World Bank 1990). Development economists have long considered part of the solution to be direct investment by MNCs, particularly through their addition to a country's overall savings and income, and through increases to both output and employment. For example:

> The multinational is perhaps the principal mechanism for transfer of prosperity to the third world (Osterfeld 1992 p.162).

> Rapid industrialisation would have been almost impossible without the appearance of multinationals (Baer 1988 p.43).

> In large measure it is the multinationals which have brought about the industrial growth of Latin America (McGrath and de Avila 1988 p.107).

The economic impact of MNCs is regarded as being in a different category from that of domestic firms (New Consumer 1993). In the first instance these companies can provide both capital investment and employment opportunities, and by sourcing materials and services locally, linkages with other sectors of the economy are created. Because of the MNCs links with world markets, not just for products and services but also for technology, capital and management, MNC investment is sought by governments of both developed and developing countries around the globe.

It is essential that both the self-reliance of firms and the know-how of local businesses be strengthened if low-income countries are to escape the cycle of debt and poverty. The presence of MNCs is not always viewed as having these positive impacts on the local firms, or on the developing country in which they are located. Rather, it has been argued that MNCs entrench dependency in these countries.

MNCs have rapidly increased their role in the world economy over the last two decades. Indeed, world wide foreign direct investment (FDI) inflows more than doubled in nominal terms between 1975 and 1985 (UN 1992). With an estimated 39 000 parent companies, who have a further 270 000 subsidiaries operating worldwide, these corporations now account for one quarter of the combined GNP of all countries of the world and their flow of FDI exceeds A$397 billion annually (UNCTAD 1996). In developing countries this exceeds A$100 billion annually and is extremely influential (UNCTAD 1996). Developing countries received 32 per cent of total world FDI during the period 1992-94, up from 20 per cent in the first half of the 1980s (Bergsman and Shen 1995).

Since the liberalisation of the economies of many developing countries during the late 1980s, especially those in Asia, they have become popular locations for MNCs. The attractiveness of developing countries to MNCs is often related to the presence of cheap and readily available inputs to the production process, such as labour and natural resources, which allow cost minimisation. Government policy, ostensibly designed to improve the welfare of citizens, can also influence the location and operational decisions of MNCs. Host governments may offer

incentives, in terms of tax advantages or exemption from regulations, to MNCs for choosing their particular country as a site for a subsidiary. For example, developing countries may allow much lower standards of subsidiaries in terms of worker health and safety, and environmental standards than would developed nations. Locating in developing countries allows an MNC to gain a foothold in the domestic market, as well as the markets of neighbouring countries.

1.3 Methodology

This dissertation uses both primary and secondary data from a range of sources to provide a detailed examination of two areas:

- how MNCs work at the microeconomic level within the local economy; and
- possible government actions to maximise the benefits obtainable from linking MNCs with local firms.

Secondary information was collected from journals and books; Australian companies; overseas affiliates of Australian companies; and the Department of Industry equivalents in the three target countries. Information published by the governments of Indonesia, Malaysia and Thailand has been used to provide an understanding of the policies of relevant government's towards MNCs and the moves which have been made to integrate them into the local economy. This provides an indication of the aims of government policy in positively influencing links between MNCs and local firms.

To fully answer the research questions, however, it was necessary to use a survey of CEOs, or production managers, of predominantly Australian-owned MNC subsidiaries in Indonesia, Malaysia and Thailand (see appendices 1 and 2). This survey was carried out, in part, to determine the level of links which MNCs have with local firms in the following areas:

- customers/supplier relationships;
- technology transfer;

- training;
- managerial skills; and
- access to marketing/trading networks.

A self-administered mail survey was chosen as the appropriate way to collect opinions, attitudes and factual data from the geographically dispersed sample. It was the lowest cost method and allowed the respondent to reply at a time convenient to them. Considering that the intended respondents were CEOs, or equivalent, any other means of contact would be prohibitively difficult. The mail survey allows the respondent more time to collect facts, talk with others, and consider replies at length than is possible with a telephone survey or personal interview. Also mail surveys are typically perceived as more impersonal, providing greater anonymity than other communication modes (Cooper and Emory 1995). This was an important factor considering some of the issues covered in the survey.

The major limitation of mail surveys concerns the type and amount of information that can be secured this way. Large amounts of information cannot be collected, nor is it possible to probe deeply into questions. In formulating the survey questions particular emphasis was placed on the frequency of linkages, who initiated the link and how it was formed, and the characteristics of local firms with which MNCs work. Basic business information was also collected to allow the surveys to be grouped and analysed according to various factors, such as size of operations, location and export focus. In addition, questions were asked as to how government policies have affected (both positively and negatively) the linkages MNCs have formed with the local economy.

Apart from limitations on the amount and depth of data that can be collected, the second weakness of a mail survey is non-response. Nothing is known about these non-response companies and, as they form a substantial part of the sample population, this can be a major problem. Non-response leads to the possibility of the response being skewed. Several techniques were used to improve returns. A pilot survey was sent to the head offices of five Australian MNCs and the responses from these were used to fine-tune the survey used in the three target

countries. An accompanying letter was sent with the survey outlining the reasons for the survey, indicating that a summary of the dissertation would be sent to those who responded, and emphasising the short amount of time needed to provide a response. The survey form contained clear instructions and the return address formed part of the survey form, both of which made a positive response easier. Three weeks after the due date a follow-up letter and new survey form was sent to those who did not respond to the first inquiry. The value of the additional information thus obtained had to be weighed against the cost of doing so. Weighing up these factors resulted in only one round of follow up letters being sent. This did succeed in raising the response rate from 17 per cent to the final level of 20 per cent. The only other method found to raise the response rate reliably was the inclusion of return envelopes (Cooper and Emory 1995), but this was not possible due to the international nature of the survey.

The sample of firms surveyed, although random, was not spread evenly across industry and service sectors which would have made it representative of the population as a whole. The method of sample selection, in combination with the response rate, meant that statistical analysis was not possible. Instead, information collected in the survey was used to support or question theoretical propositions in a subjective manner. The survey was designed with this use in mind and allowed plenty of opportunity for respondents to express their views on topics central to this dissertation.

1.4 Plan of dissertation

Areas in which skill and information exchange can occur between MNCs and local firms, and findings of previous studies are examined in chapter 2. This provides the theoretical basis for both inter-firm cooperation and more specifically cooperation between MNCs and local firms. Survey results pointing to how MNCs are relating to local companies in the three targeted countries comprise chapter 3. Chapter 4 outlines how government policy influences the linkages MNCs form with local firms. Chapter 5 comprises the major findings and

conclusions, with respect to policy implications, of the dissertation. The two appendices comprise, firstly, the survey form used to elicit information from MNCs and, secondly, a discussion of the response rate for the survey and characteristics of the surveyed MNCs.

2. Multinationals and Local Firms: Literature Review

2.1 Introduction

An examination of how and why MNCs do and don't work with local firms in developing countries begins by inquiring why MNCs want to go to these countries and, in turn, why MNCs are welcomed into developing countries.

MNCs are enterprises headquartered in a parent country, but which operate across political boundaries (Osterfeld 1992) with wholly or partially owned subsidiaries or affiliate divisions (Reese, Henneberry and Russel 1989). There are clear systems of central control, policy formulation and management that are the responsibility of the corporate headquarters. By dividing their operations and locating in host countries, MNCs such as Pacific Dunlop, BHP and ANZ minimise or reduce their global costs. When examining the operations of MNCs within an individual country, MNCs can be seen to offer a distinctive package of resources and services which is difficult to find elsewhere. However, each of the potential benefits contains, as a counterpart, potential costs. These costs and benefits occur at both a micro- and a macroeconomic level. The microeconomic effects of MNC operations are the subject of this dissertation, but an understanding of what are commonly viewed as the macroeconomic implications provides a basis for examining these.

Macroeconomic benefits from MNCs are those which broadly benefit the economy as a whole. These take three forms:

- supplying direct foreign investment to increase or supplement domestic savings and foreign exchange availability;
- increasing government income through taxes and charges, both direct and indirect; and

- direct and indirect employment.

The size of the macroeconomic benefits to a developing country arising from the presence of an MNC may vary greatly. The benefits can be large or they may be minimal because of the repatriation of profits and use of transfer pricing to move money offshore. On the other side of the coin are the macroeconomic costs of MNCs in developing countries. The foreign exchange impacts of MNCs can be negative if only a small proportion of profits remain in the host country as retained earnings. When this occurs the expected increase in tax revenue is not realised. Osterfeld (1992) and New Consumer (1993) found that MNCs do not transfer much capital to the developing countries but instead acquire much of their capital through local borrowing, thereby raising interest rates, squeezing local enterprises out of business, and retarding development by transferring more profits out of the developing country than they put in through investments. This view is supported by Lall and Streeten (1977) who noted that the benefits from MNC investments are not large and may well be unstable over a long period. This situation is worsened if government subsidies are required to maintain the MNC presence which then does not provide a justifiable social economic return.

From a social viewpoint, MNCs have been accused of the exploitation and undervaluation of human and natural resources and it is claimed the full impacts of MNCs' actions, including environmental and social impacts, may never be quantified. Indeed Osterfeld (1992) notes the anti-MNC argument that they are major components of an international economic system that holds down prices and thus wages in developing countries, thereby causing terms of trade for the developing countries to deteriorate.

From a political economy perspective, many MNCs are larger in terms of budgetary considerations and negotiating power than the governments of the host countries involved and so have the ability to influence government policy in their own favour. This raises concerns about economic sovereignty, rent sharing and acceptable business behaviour. AN MNC may pressure a government to receive special privileges, by lobbying, bribery or veiled threats to move elsewhere. This is

a perennial problem, being noted by both Hymer (1970) and Akinsaya (1989), amongst others. On purely economic grounds the domination of an economy may be detrimental to the long term economic development of the host country, resulting in a lower rate of accumulation domestically, higher charges for technology and other services, and a high degree of oligopolistic competition (Lall and Streeton 1977).

On a microeconomic or individual firm level, MNCs do have the resources to provide clear benefits to the host economy. MNCs can be viewed as developing the local economy through the formation of industry clusters and inter-connections, a view developed by Porter (1990). He has outlined four distinct stages of national competitive development - the first of which is 'factor driven' development. Nearly all developing countries are at this stage, when virtually all internationally successful industries draw their advantage solely from basic factors of production, whether they are natural resources or an abundant and inexpensive semi-skilled labour pool. To move to the next 'investment driven' stage depends on the willingness and ability of a nation and its firms to invest aggressively and to be able to absorb and improve upon foreign technology. Clustering of industries serves to make groups of industries in a nation develop and upgrade in some parallel way. The quality of factors of production develop in parallel across industries because factors, for example skilled human resources, can be used by several industries. The development mechanisms for the factor will spread through these different industries partly because of demonstration effects. Approaches to competing, as well as prevailing norms and values, also spread from industry to industry. This is possible as a nation's successful industries are generally linked through vertical (customer/supplier) or horizontal (such as technology sharing or common customers) relationships (Porter 1990). Hence co-location is emphasised as playing an important role in speeding up the rate of industrial growth and development. In developing countries, industrial estates, special economic zones, bonded areas and export processing zones have been established. These zones, offering a wide range of fiscal incentives and infrastructural facilities to both domestic and foreign investors, have been an important instrument for attracting export oriented FDI.

The organisational efficiency, global product sourcing and marketing structures of MNCs makes them an appealing working partner for local firms. Linkages between the two provide an inflow of human, material and financial resources which exert a significant influence on host country development. There are five clear areas where MNCs can benefit the local firms they work with:

- acting as suppliers and customers;
- access to, and diffusion of, technology;
- employment and training opportunities;
- managerial expertise; and
- opening new markets.

These benefits can be described as increases in consumer and producer surplus and include changes for the sectors which expand as a consequence of the MNCs operations. The benefits from MNC investment can also take the form of an increase in beneficial spillovers to the host country. For example, new technology may costlessly improve the productivity in some sectors, resulting in higher output and lower prices. As a result both consumer and producer surpluses are likely to increase.

In opposition to this, a small group of developing country governments, and indeed a significant group of economists, emphasise the microeconomic downside of MNC operations. MNCs may actually act as a disincentive to local firm growth and entrepreneurship as the resources and other benefits they provide may be unsuitable to local firm needs. AN MNC producing computer components, for example, may use sophisticated technology unable to be adopted by local firms, require high quality inputs not available from local suppliers, and use skilled staff not readily available in the host country. At various stages of their history countries as diverse as Mexico, Albania and North Korea have regarded MNCs, and all foreign investment, with suspicion, avoiding or limiting their involvement with them. MNCs were regarded as organisations that have little or no concern for the welfare of countries in which they operate, being motivated solely by profit with no regard to social considerations.

Similarly, the downside of MNC investment can be viewed in terms of consumer and producer surpluses and spillovers. Decreases in consumer and producer surpluses occur in industries experiencing rising costs and prices. For example, an MNC investment may result in an increase in the cost of an important factor input, which results in falling producer and consumer surpluses in other areas. Spillover costs associated with MNC investment include transfer-pricing arrangements which decrease corporate tax paid in the host country, and possible environmental spillovers. For example, BHP's OK Tedi mine in Papua New Guinea has caused well publicised negative environmental impacts on the Fly River through the release of tailings from its mining operations.

However, considering the parlous economic position of many developing countries, and the potential benefits from MNCs, it is not surprising that many developing countries should welcome MNCs with open arms, discounting the likelihood of negative outcomes and offering all manner of concessions and incentives. Such countries feel their survival and future success lies in modernising their economies and that this can be most efficiently achieved through investment by MNCs. These corporations generally have access to sufficient capital, technological and management skills and facilities, as well as the necessary marketing and trading networks. They are modern, highly sophisticated units of production and marketing.

The five areas of MNC involvement identified as having potential microeconomic benefits are examined in greater detail below. In particular the important roles that these areas play in economic development is noted.

2.2 Suppliers and customers

MNCs can exert a significant influence on both the rate and characteristics of the process of growth and development in developing countries through the creation of forward and backward linkages with firms in the host economy. Forward linkages refer to the sale of the output of MNCs to local firms for use as inputs

into their productive processes, and backward linkages refer to purchases by MNCs from domestic supplier firms. Lall (1985) expanded this idea of linkages further to refer to the direct relationships established by firms in complementary activities which are external to pure market transactions.

The benefits of the enhanced knowledge and know-how embodied in new products and processes flow to parties in a market relationship with the innovating firm. Here the spillover benefit consists of the unpaid value that is passed on to users directly through the products, or indirectly through the processes of the innovating firm. A benefit arises because there is a difference between the price the user had to pay and the price they would have been prepared to pay for the product rather than go without it.

An MNC subsidiary that fits imperceptibly into the local community and not drawing to any large extent on the global resources of the parent company, does not introduce new skills and resources to either the benefit of the local firms or the host country. Similarly, a foreign enclave largely isolated from the local community does not draw on local resources for its own benefit nor does it optimise its contributions to the local society. Contreras (1987) found developing countries have been deprived of potential income because MNCs often operate as technical and economic enclaves in the host country with few links to the rest of the economy and therefore few multiplier effects. Steering a path somewhere between these two scenarios, tying an MNC subsidiary to the local economy while maintaining close links to the parent company, would seem to be the way for a host country to optimise its gains from the presence of an MNC.

To quantify the benefits MNCs provide through forward and backward linkages, it is necessary to know-how frequently these links occur. The benefits themselves, which obviously include the transfer of technology, skills and knowledge to local firms, are examined more specifically in later sections of this chapter (sections 2.3, 2.4 and 2.5).

2.2.1 Frequency of linkages

Kirkpatrick, Lee and Nixson (1984) argued that MNCs establish few links with domestic firms. Their highly centralised global structure and their internationally integrated operations, combined with their use of capital intensive technologies and the nature of the final product, mean MNCs create a virtual enclave in the host economy. Instead of aiding the development of a local industrial sector, MNCs tend to integrate only the modern, MNC-dominated sectors of the host economy with the international economy.

Langdon (1975) laid great emphasis on the belief that the actual production processes of MNCs may offer less opportunities for linkages. Inputs may not be available locally or tie-in clauses may exist which compel the subsidiary to buy from its parent or another subsidiary. Both of these situations forestall other sources of supply developing. Capital equipment is also likely to be supplied by the parent company, thus preventing or impeding the development of this industry locally. So ownership does not necessarily determine linkage possibilities in developing countries, and they become dependent on the nature of the technology utilised and the characteristics of the final product.

Lall (1978) looked in greater detail at how the export focus, and even the countries in which MNCs were operating, were related to their linkage formation. His review of the literature showed that among import substituting MNCs, extensive forward and backward linkages had been created in larger semi-industrialised developing countries, largely as a result of government pressure, but probably at an excessively high cost. In smaller or industrially backward developing countries, MNCs had created relatively few linkages.

With respect to export oriented MNCs, Lall (1978) distinguished between MNCs that:

- had moved from import substitution to the export of manufactured goods;
- produced and exported traditional products;
- invested in modern industries specifically designed for export; and

- sourced investments where a particular labour intensive process was transferred to the developing country.

MNCs exhibiting one of the first two characteristics were likely to create the most local linkages, while the third rather less, and the last virtually none. Fears are often expressed (for example UNIDO 1974) that small enterprises linked to MNC buyers are exploited in terms of price and occasionally reduced to a state of peonage by their customers.

A study of the metal products industry in India (Papola and Mathur 1979), while admitting the developmental potential of backward linkages, argued such linkages were not systematically developed by the foreign-owned companies in this industry and those which did exist did not involve significant transfer of technology or skills. Technological specialisation, sophistication and firm size were found to be the predominant determinants of the nature and strength of backward linkages.

There have been suggestions that MNCs may unduly favour suppliers of their own nationality. There are several reasons to expect that this may be the case. First, it is irrational to expect any firm, foreign or domestic, to favour local suppliers if their product is not of comparable quality and price to those obtained elsewhere. Second, MNCs may have long term relationships with suppliers from their home country. Thus, they know the quality of the product or service being supplied whereas they are likely to have less knowledge, and therefore greater uncertainty, about host country suppliers. Moreover if the service or product is of small cost relative to the final product, but component failure imposes a high cost, they may prefer to avoid the down-side risk and continue using their existing suppliers. It should also be noted that the less competitive the market, the less the penalty to the MNC of a sub-optimal choice of supplier. That said, MNCs are global players. They may be reluctant to endanger global understandings and alliances by using smaller domestic suppliers, even where the domestic supplier can supply the product or service at a superior price or quality. Thus on *a priori* grounds, suggestions of discrimination, which motivate against backward linkages, are not without some credence.

When local suppliers are used there are very good reasons for MNCs to work closely with them. Lall (1985) noted that, where efficient production and innovation require the close co-ordination and monitoring of input quality, specifications, testing and development, the market will not by itself provide sufficient information or enable the requisite degree of cooperation to take place. In developing countries where technical capabilities themselves are underdeveloped the market does not provide the means for potential suppliers to reach adequate levels of competence in technology or management.

Where independent suppliers can behave opportunistically and renege on contracts, direct relationships can help by creating the goodwill to ensure compliance and an atmosphere of cooperation. Where uncertainty arises from factors outside the suppliers control, or from a lack of market information, the buyers can help by providing the missing elements themselves. MNCs can place orders for specified periods to facilitate current production-planning by local firms, and can communicate long term plans to facilitate investment planning. In many developing countries, suppliers simply do not exist in sufficient numbers, and buyers may have to contribute directly to their founding or expansion to create goodwill as well as alternative, better, cheaper or more reliable sources of supply. MNCs can assist or encourage local suppliers to set up facilities nearby, and also encourage foreign suppliers to invest in the country, again to provide cheaper alternative sources of inputs.

In the case of forward linkages with local firms there is general agreement that these are more common - although not always beneficial. It is clear that development fostered by MNCs, especially those involved in consumer goods industries, is not always responsive to social needs, particularly those of the poor. Because of their need to continually expand and grow, MNCs must have an increasing number of responsive buyers. Since their capacity to sell largely determines their profits, they must inevitably produce for those who can afford rather than those in need. Thus they have become linked to, and dependent upon, the affluent sectors of poor societies because these are the principal consumers.

In creating forward linkages with local firms MNCs are competing for the domestic market with other local firms. In some cases 'crowding out' may occur and local entrepreneurship discouraged. MNCs are accused both of charging above market prices, thereby reaping monopoly profits (Barnet and Muller 1974; Frank 1981; Spero 1984) and below market prices thereby driving local competitors out of business (Frank 1981; Akinsaya 1989).

2.3 Technology

Empirical studies, such as those by Solow (1957), the BIE (1985), and Denison (1985), have shown that technological progress is a major contributor to economic growth. Stewart (1977) stated that 'technology encompasses the skills, knowledge and procedures for making, using and doing useful things'. Technological progress not only increases the efficiency of a firm or nation, it produces entirely new products and services. This product-widening feature of technological change is, of course, directly related to economic development in the long run.

Technology in this sense includes both new or improved processes and products. Issues such as managerial, organisational, financial and marketing skills are examined separately later. Technology can become available through large and expensive items, such as capital equipment, but can also become available in gradual, almost imperceptible, ways - for example, from the introduction of improved factory floor or management practices.

As discussed by the BIE (1992) in a survey of the developments in the theory of economic growth, MNCs are a frequent transmitter of advances in technology and knowledge between countries. MNCs generally have a competitive advantage based on their research and development and general know-how and they are able to provide a whole package which can enable both the transfer and successful commercial application of the technology (Lall and Streeten 1977). Indeed, MNCs have been responsible for approximately 80-90 per cent of the technology transferred to developing countries (Ghosh 1984), mainly through contractual

transfers. It has been suggested that international investment by MNCs has been instrumental in shortening the time lag between the initial stages of innovation and the appearance of innovations in other companies. The relationship between the subsidiary and local suppliers may constitute a means of upgrading the technological and industrial potential of the host country.

From a policy perspective the impact of the transfer of overseas technology on domestic research and development is a particularly important one. In essence the key question is whether overseas technology is a complement (that is induces further domestic research and development) or a substitute. If the two are substitutes the transfer of overseas technology may reduce domestic research and development to the point where indigenous industrial development is adversely affected. Clearly for many technologies importing through MNCs is an alternative to domestic research and development. However, overseas technology may also require considerable modifications before it is suitable for domestic applications, thus inducing additional research and development. Knowledge of overseas research and development can also have a demonstration effect on domestic firms, thereby stimulating them to greater research and development efforts. The available evidence on this issue is inconclusive (BIE 1988).

There still remain questions as to whether the technology supplied by MNCs is beneficial to developing countries' economic growth. These concerns revolve around two areas:

- the suitability of the technology to the developing countries' needs; and
- the ownership of the technology.

These are examined below.

2.3.1 Type of technology

Technological change has been rapid and often dramatic for developing countries but MNCs have been criticised on the basis that this technology is unsuited to the dynamic evolution of the resources of the host country. New Consumer (1993) found MNCs exhibited a widespread emphasis on labour productivity and new

methods, rather than on the need for increased employment and traditional solutions. These modern capital intensive technologies can worsen income inequalities; create a long-run dependence on imported equipment and associated inputs; bias production towards high income, sophisticated and differentiated products; and cause traditional technologies and processes to be abandoned and lost (Barnet and Muller 1974; Lall and Streeten 1977; Muller 1979; UN 1979; Ghosh 1984; Akinsaya 1989). MNCs are also criticised for using the developing countries as dumping grounds for outdated technologies (Barnet and Muller 1974; Hancock 1989). The Director-General of India's peak business organisation, the Confederation of Indian Industry, Mr Tarun Das, complained of MNC's 'cowboy' approach to India, for dumping obsolete technology and second-hand plants in the country, and for pitching their investment at levels higher than required (Zubrzycki 1996).

The argument concerning the appropriateness of the technology transferred to developing countries by MNCs relates to the disparity between the factor endowments of the developing countries and the factor requirements of MNC technologies. Given the relatively labour-abundant/capital-scare resource endowments of most developing countries, and assuming the market prices of the factors of production reflect social opportunity costs, it is argued that developing countries should select technologies that utilise most intensively their relatively abundant factor (labour) and economise on the scarce factor (capital). The MNC, on the other hand, is more likely to transfer a capital intensive technology to the developing country, a technology that has been developed and perfected in the capital-abundant/labour-scarce developed economies.

Arrighi (1970) argues against this, pointing out that in most developing countries the skilled labour necessary for labour intensive operations is in short supply, and thus the need to economise on the scarce factor dictates the choice of capital intensive technology - in which semi-skilled labour and high level manpower predominate. Helleiner (1975) extends this argument, saying that in many developing countries material inputs are often expensive and difficult to obtain because of foreign exchange controls and import restrictions and in such cases it

will pay to substitute other factors. Capital substitution can offer greater opportunity than labour substitution. Of course, the technology used by MNCs suits their own purposes. Product design may be more tightly specified for the purposes of differentiation or worldwide quality. Rules within MNCs may require particular product specification and thus particular technology. Marsh, Newfarmer and Moreira (1983) noted that the spread of MNC production creates new institutional relationships which may alter or introduce new constraints into the firm decision making process.

In many developing countries, different waves of technological innovations have arrived, often lacking the integrated and developed infrastructure necessary for support. Infrastructure includes the existence of research and development facilities, training programs for technicians and suchlike. MNCs themselves have generally contributed little to the development of technological infrastructure in developing countries. Rather they have sought to minimise the value added of their production in developing countries. Local research and development activity in developing countries is often confined to the adaptation and local testing of products that are not available in developed countries or are produced locally.

As far as adaptability goes, much of modern high technology cannot be changed to suit developing countries endowments - the demands of precision, continuity, scale and complexity are too great. The lack of adaptation may be due to inappropriate factor prices; low labour productivity; lack of competition; scale requirements; skewed patterns of consumption favouring modern products; danger of loss of simple technologies; lack of local adaptive research and development; threat of labour problems; or greater adaptability of capital intensive plants to demand fluctuations (Lall and Streeten 1977).

MNCs in search of profits should not find it difficult to invest in and develop cheap mass produced products, appropriate to the lower incomes of the developing countries. However, the ownership and control of technologies are the advantages of MNCs. They will want to use these rather than develop new ones for each developing country market. If imitation is easy, as is the case with simple products

and processes, the advantage is soon lost. It is therefore in the nature of MNCs that their products and processes should be excessively sophisticated in relation to the needs of developing countries (Lall and Streeten 1977).

If the technology supplied by MNCs is unsuitable for local firm use why is it being adopted by these very firms? Winston (1979) advanced ethnic pride as one reason why developing countries demand capital intensive technologies and MNCs supply these demands. Helleiner (1975) suggested good citizenship as a further reason for the uptake of capital intensive technologies by local firms. Perhaps the major reason is the unavailability of labour intensive technologies. The technologies used by MNC subsidiaries are, in the most part, those developed by the parent company for use in highly industrialised developed countries.

2.3.2 Ownership of technology

The technology market has several peculiarities which distinguish it from a normally functioning commodity market. These arise as it deals with knowledge which, once produced, costs very little at the margin to sell, yet can be very expensive to commercialise and hence it is extremely concentrated in ownership. Since private production of marketable knowledge must earn a suitable reward for effort and risk, the intrinsically social nature of the product must be counterbalanced by secrecy and legal rights and by its embodiment in a suitably-marketed, branded commodity (Lall and Streeten 1977). There may be clear advantages to developing countries in gaining use of the technologies an MNC may bring into the country - but in many instances this may not be in the interests of the MNC. Indeed, the investing firm has an incentive to maintain propriety rights over the technology it owns. In general, links with MNCs may be formal and pecuniary (such as licensing for technology transfer or joint ventures) or informal networking arrangements. In some circumstances it will be in the interests of the MNC to make its knowledge available, for example to supplier firms to improve their quality and delivery timeliness.

The marginal cost to an MNC of using already developed technology is zero, to the developing country the cost of developing an alternative technology may be huge. Vaitos (1973) argues the process of technology commercialisation is best seen as a bargaining process in which the developing country is in a position of weakness compared with the MNC, due to information asymmetry. Over time the expertise of MNCs will tend to diffuse to other firms. The physical methods of technology diffusion include labour turnover, especially of managerial and technical employees; copying ideas and reverse engineering; and advice given by the foreign subsidiary to suppliers and partners (Mastoris and Harris 1993). This process is likely to be both more rapid and more complete if the firms are in geographical proximity, share the same suppliers, and generally operate in the same economy (Madge, Monday, Mastoris, Anderson and Harris 1993). That such transfer occurs to the benefit of the recipient country is both widely accepted and supported by such studies that have been undertaken (UN 1992; BIE 1993). In reality, all leakages are not costless to the local firms (see Mansfield, Romeo, Schwartz, Teece, Wagner and Brach 1982; Jensen and Thursby 1986). When learning is costly, the decision to learn by the native firms becomes endogenous, making their choice dynamic because they have to invest now for future payoffs.

Clearly an innovating firm wants to preserve its intellectual property (the know-how and knowledge value of its innovations) for as long as possible, to give it a competitive edge in the market. In many instances the MNC will have no, or very imperfect, property rights over its technology and know-how. In some instances this will be because the cost of writing contracts, or applying for patents, exceeds benefits to the firm. In other cases the task is simply not practical, for example, contracts covering successful human management practices. Magee (1977) focuses on the appropriability problem of new technology because of its public good nature and emphasises that MNCs will specialise in sophisticated and skilled labour-intensive technologies which cannot be stolen in the developing countries.

The market power of MNCs largely determines the availability and pattern of technology transfer in advanced science based sectors (such as pharmaceuticals) where technology ownership is concentrated in a few large enterprises. In these

sectors, owing to increasing research and development costs, the economies of scale involved in technological innovation and commercialisation, and high costs of market failure, large companies have become the major source of technological development and consequently the owners of new and improved technology. Similarly in sectors where fast technological change reduces the product life cycle, the importance of technological advantage makes control over the technology within the corporate system the major motivating factor in its commercialisation. In these sectors the transfer of technological know-how to local firms is often prohibited.

The ILO (1976) found that some contracts for technology transfer contain clauses requiring the purchasing firms to acquire the greater part of their intermediate products and capital from the seller or from other agreed firms, and often contain restrictive conditions, especially as regards exports. Stewart (1977) has pointed out that royalty payments and license fees only cover a small proportion of the total technology payments included in the import of machinery and equipment, intermediate goods imports, and payments of fees and salaries to foreign personnel greatly increase the cost to local firms.

There is one more factor that enables MNCs to charge highly for their technology. MNCs can realise rents by virtue of their monopolistic power which may be excessive in relation to the technological benefit received by the host developing country. In the case of a wholly owned subsidiary the host economy pays not just for the technology but also for the whole combination of advantages which constitute the MNCs market power. Because of administrative weakness MNCs may be allowed to enter sectors where the domestic technology is quite adequate and where the advantage of foreign investors lies in their superior marketing rather than any technological advantages.

2.4 Employment

It is through the movement of people, workers and managers alike, between local firms and MNCs that knowledge and ideas are spread. Thus, the provision of

employment opportunities by MNCs, in effect ties all the other issues together. By providing jobs for local people MNCs are actually providing much more than just a salary: knowledge of different employment practices is spread, as well as training being provided. MNCs' employment effects are both direct (examined below) and indirect. Indirect employment may be created by MNCs via the development of backward and forward linkages within the host developing country economy. Employment in other businesses may be increased by the MNC's demand for factor inputs and through increased demand for complementary goods and services.

2.4.1 Job creation

To economists, labour is a factor input to production, no different from any other. In itself increased usage of any factor input would not normally be regarded as a benefit. It can be argued, however, that even if increased employment resulted in no positive income effect, people would prefer to be in employment themselves and see their fellow citizens employed. The preference probably reflects the belief that there are beneficial spinoffs to society from full employment, in that it results in lower social dislocation.

Do MNCs result in increased employment? The acquisition of an existing business by a foreign entity, in the absence of other changes, will leave employment unchanged. The establishment of a new business, by a foreign entity, will certainly increase employment in the business concerned. If the types of skilled labour demanded by the MNC are not in excess supply, the business will need to bid labour away from other firms. The direct employment impact of MNC investment will be lessened to the extent that it displaces other activities (Hymer 1970; Barnet and Muller 1974, Frank 1981; Akinsaya 1989), to the extent that it increases real wages, and results in 'crowding out' appreciation of the local currency. In the longer term these demand-side effects imply little, if any, overall employment benefits. This impedes or prevents economic growth in the developing countries by retarding the acquisition of entrepreneurial and other skills needed for self-sustaining economic growth. In short, gross increases in employment due to MNC

activity should not be confused with net increases. However, there are two reasons why MNCs may have a positive impact on employment - through creating demand in a depressed region and by increasing the marginal product of labour in the longer term.

Any employment creation effects of MNCs can be expected to differ between sectors. The ILO (1976) found indirect employment effects are more important in the manufacturing sector than in the mining and primary production sectors, in so far as MNCs are better integrated into the local economy. Thus, at the national level, MNCs have a greater share of sales in the manufacturing sector than of employment, their productivity being higher than that of local firms. Baer and Samuelson (1981) have highlighted linkages between the presence of MNCs and significant service sector employment, hypothesising that the proportion of service sector employment representing disguised unemployment will fall over time. Baer (1976) maintains that the growth of capital intensive, large scale industrial units would be more likely to generate high rates of growth of service employment than would a labour intensive industrial strategy. MNCs engaged in import substitution generally operate in highly capital intensive industries which do little for direct employment creation while export-led industrialisation may well utilise relatively labour intensive techniques and thus create more jobs (ILO 1976; Kirkpatrick et al 1984). However, it is also likely to be the case that export oriented MNCs create fewer linkages with the host economy and thus indirect employment creation is likely to be limited.

The issue of wages paid is one which occurs in relation to MNC operations in developing countries. MNCs are criticised for exporting jobs to developing countries in order to exploit developing country workers by paying low wages (Barnet and Muller 1974; Cox 1979; Lall 1983). On the other hand, they are also blamed for upsetting wage rates in developing countries by paying higher than prevailing wage rates (Nafzinger 1984; Akinsaya 1989). Osterfeld (1992) argues that so long as the higher incomes of the MNC employees are a result of wealth creation rather than redistribution of existing wealth, the presence of the MNC constitutes a welfare gain for the domestic economy. The higher income of those

working for the MNC increases their purchasing power, which generates additional demand for goods and services. Many of these are supplied, or can only be supplied locally. This additional demand then opens up wealth opportunities for others sections of the community.

2.4.2 Employment practices

Job creation by MNCs may have more broadly beneficial effects when internal employment policies and practices of the MNCs affect attitudes, expectations and practices of domestic companies operating in the same labour market (New Consumer 1993). Specific factors which may be adopted by local firms, either willingly or due to regulatory pressures, are the observation of labour standards and their status in national and international law; wages; working conditions; occupational health and safety issues; freedom of association; industrial relations; discrimination and equal opportunity practices; attitudes towards forced or compulsory labour, child labour and migrant workers; temporary and casual labour; employment security, contract termination and consultation. In effect, through the presence of MNCs, the attention of local firms can be drawn to the rights and responsibilities of both employees and employers.

To balance this, there is also the possibility that MNCs will take advantage of laxities in employment and industrial relations laws in developing countries and employ on the same basis as local firms. MNCs may even lobby to maintain poor employment conditions, in comparison to developed country conditions, due to profit considerations.

2.4.3 Training

One commonly cited benefit from MNC investment is an increase in the stock of human capital, namely expertise and know-how. MNCs are seen as the source of training for the local workforce. The extent to which MNCs are prepared to train local workers would depend on whether the training is general or firm specific.

General training refers to the gaining of a wide variety of skills applicable to many jobs, and may include literacy and numeracy skills. MNCs would be reluctant to train workers in such skills, if only because of the risk of the newly trained staff leaving or being poached by other firms Firm specific training could provide an opportunity for employees to be trained by the MNC, as such skills are idiosyncratic to the MNC. However the usefulness of such firm specific training to the economy as a whole is reduced as, by definition, such training is only useful to the MNC in the short term. Therefore the value of MNCs as sources of human capital investment is at best likely to be limited.

New Consumer (1993) noted that the workforces of MNCs tend to include a higher proportion of skilled, technical and managerial staff than those of local firms. The vocational training provided by the MNC will have a multiplier effect if the recipients of such knowledge transfer it to existing local firms or use it to found their own firms. However, the trend towards starting new firms may not be very marked owing to the lack of financial resources available to local workers. Indeed, Reiffers, Cartapanis, Experton and Fuguet (1982) found senior technical sales personnel and engineers are regarded as very stable. A study of South Korea (Jo 1976) has shown that very few nationals who have worked for a foreign firm subsequently work for a Korean firm. As a general rule the transfer of knowledge and technology through the mobility of production personnel and managerial personnel between MNCs and local firms seems negligible (Reiffers et al 1982).

One area Ghosh (1984) found to be lacking in the training aspect of MNCs operations was local research and development activity. The resultant low demand for scientific and research personnel hinders the development of the indigenous engineering and design capabilities necessary for the creation of technology and the effective adaptation and absorption of foreign technology.

2.5 Managerial expertise

Lall and Streeten (1977) classified the benefits to host countries of the managerial superiority of MNCs into three types:

- managerial efficiency in operation, arising from better training, higher standards of recruitment, faster communications and a more dynamic outlook;
- entrepreneurial ability in seeking out investment opportunities, organising suppliers and markets and developing new technologies; and
- externalities arising from training received by employees who later leave the firm, and the demonstration effect on local firms, suppliers and even government officials which results in the spread of managerial techniques.

Theoretically, these benefits can be expected to result in lower costs and prices, better investments and a general improvement in managerial standards in the host country.

There is, however, disagreement, as to whether MNCs stimulate or retard the acquisition of entrepreneurial and other business skills by the indigenous population. Once the presence of an MNC is accepted this disagreement revolves around two points - the applicability of the management techniques to non-MNCs and the level of involvement of local staff in management.

A major criticism the ILO (1976) had of MNCs was the lack of involvement by their local staff in management. The ILO found local staff of MNCs took very little part in management, mainly because there were few trained executives in the developing countries. The importation of advanced management techniques by MNCs may help to improve the skills of local staff in developing countries, but only if the local staff are used in managerial and supervisory posts. Kirkpatrick et al (1984) noted that the extent to which local staff are used in managerial grades should be looked into more closely. The lack of trust between MNCs and their Indian partners makes them use expatriate managers instead of local staff (Zubrzycki 1996). A survey of US and European MNCs shows the proportion of locals in managerial grades is higher when the company is highly internationalised; has detailed knowledge of the foreign markets; and when it has a highly standardised technology (ILO 1976). On the basis of this criteria, over time the

natural expansion of MNCs makes it easier for local staff to reach responsible positions.

The sheer size and growth of MNCs is sometimes taken as evidence of their superior efficiency in operations. However, even if locals are trained in the management practices of MNCs this may not lead to external benefits in developing countries because these practices may be irrelevant to the normal methods of business there. If this is the case, departing employees may even worsen the standards of management in the host country by importing practices suitable to very large, complex and impersonal situations to small, personal and culturally different ones.

2.6 New markets

MNCs command access to superior global distribution and marketing systems. Increased exports are often a commonly claimed benefit from the presence of MNCs. To claim this it is necessary to distinguish between gross and net export effects. Depending on the effects on other firms, an MNC with a high export propensity itself may result in an actual fall in net exports. This could occur, for example, if it displaces other economic activities with higher export propensities. More fundamentally, implicit in the claim is a belief that exports are in some way special as they earn foreign exchange. However, a dollar earned supplying the domestic market is just as beneficial as a dollar earned supplying the export market (BIE 1993).

The 'better access to overseas markets' is a special case of the 'higher export earnings' benefit. To establish a presence in overseas markets can involve large investments in time and money for domestic firms. Moreover there may be cultural and institutional impediments to outsiders penetrating the market. In contrast foreign investors often have established overseas marketing and distribution networks and a loyal client or customer base. Thus, opening up an overseas market can result in higher incomes for host country inhabitants. MNCs can assist

suppliers to find other customers (at home or abroad) to increase their financial stability. Manufactured exports may be greatly increased by using the world-wide marketing outlets, skills and reputation of the MNC.

The mechanics of how the skills of the MNCs benefit host country firms are varied. The marketing skills of MNCs may bring about:

- improvements in storage and transport arrangements, leading to a longer life, better quality, improved delivery and lower prices of products;
- closer co-ordination of supply and design with the particular specifications of products demanded, which is an important benefit in selling capital and intermediate goods to other manufacturers; and
- better information about products to consumers; the provision of a wide range of products, with accompanying progress in methods of retailing, market research and in realising the economies of large scale distribution networks.

In addition there may also be beneficial spinoffs to host countries from the development of overseas markets. Some of the knowledge gained from servicing overseas markets will be generic, rather than firm specific, and will in time diffuse to local firms. Moreover the presence of MNC products in the guise as host country products in overseas markets has a generic as well as a product specific component. This may well assist other local firms to enter the same market at a lower cost (BIE 1989). A further benefit to local firms is piggybacking into foreign markets. For example, forming alliances with international distributors is one way for local firms to gain access to international markets. Their ability to do so will be enhanced if the distributor has a presence in the host country.

Empirical evidence in support of export spillover effects of foreign firms includes the work of Aitken and Harrison (1994) which found that locating near exporting foreign firms significantly increased the probability of exporting by Mexican indigenous firms. On the other hand, Mexican firms locating near exporting Mexican firms had no such impact. Similarly, in a review of export success stories,

the World Bank (1990) found that foreign firms played a significant catalytic role in most of the cases of export by local firms examined.

There is also a second round benefit from access to overseas markets. In general, it is more difficult to compete in export than domestic markets. Thus export markets tend to provide greater impetus for firms to seek and introduce productivity improvements. Moreover MNCs lead to increased integration in their own right (UN 1993). These benefits are broadly similar to those from closer integration from trade. For example, one of the benefits of import competition is that it forces domestic producers in the traded sector to find new and improved ways of doing things. Inward investment provides a similar incentive for producers of non-traded goods and services (RBA 1994). To the extent that MNCs increase trade in goods, services and knowledge, they promote the benefits associated with this trade - essentially the benefits of comparative advantage, increased competition and economies of scale through specialisation (Graham and Krugman 1993).

2.7 Summary

The economic impacts of MNCs can be viewed as being in a different category from domestic companies in developing countries, due to their links with world markets for products, services, technology, capital and management. Chapter 2 has examined the potential areas of impact of MNC operations in developing countries and noted these impacts can occur at both the macroeconomic and microeconomic levels.

The macroeconomic indicators of MNC activity, including changes in the levels of exports or GDP, are those which often appeal most to the governments of developing countries. Many developing country governments have set in place a series of incentives to attract MNCs to locate in their country to gain these economic benefits. They have simultaneously set up systems of regulations to control the MNCs, for example to limit the losses to the host country due to transfer pricing or increased imports. This dissertation takes no further interest in

these macroeconomic effects as they are best examined in a general equilibrium framework which is beyond the scope of this dissertation.

The firm level, or microeconomic, impacts of MNCs are the focus of this study. In all, five areas of MNC impact on local firms are identified. These impacts are through the MNCs acting as suppliers and customers; and through the provision of technology; employment; managerial expertise; and export markets.

MNCs can form new customers for local firms or act as suppliers to them. These relationships can be pure market transactions or can encompass some elements of cooperation, including the flow of information, skills and technology. A counter-argument was also presented that the presence of MNCs forces local firms out of markets as the MNCs take a dominant position and integrate both horizontally and vertically.

The potential of MNCs to transfer technology to local firms in host countries is a contentious issue. The success depends on the suitability of the technology used by the MNC and the form of ownership the MNC maintains over this technology. That MNCs use capital intensive, high-technology production processes transferred from the parent company which are unsuitable for local firms is a common perception, but not always the case. There are also sound business reasons for MNCs to make use of the ample labour supplies in many developing countries.

The transfer of staff between MNCs and local firms is a prime way in which technology, business practices and other information on MNC operations can be spread to local firms. As well as creating jobs, MNCs can also train staff which provides them with useful skills in any future workplace. Some have argued, however, that these skills are not easily transferable to smaller businesses and often MNC staff are found to have a well structured career path within the MNC and so not be willing to leave to work elsewhere.

Closely related to staff training is the issue of managerial skills. MNCs can be argued to provide this component of training to nationals who can then take these skills to local firms. The levels of nationals versus expatriates in managerial positions within MNCs is an important measure of the success of such programs. Another area of dispute is the relevance of the types of managerial skills taught by MNCs to conditions in local firms.

Finally, it has been claimed that MNCs can help local firms to access new markets, particularly export markets. The fact that many MNCs have developed behind tariff barriers provides a strong counter-argument to this idea.

This chapter has used economic theory and previous research to show that microeconomic linkages between MNCs and local firms can, under the right conditions, lead to an increased rate of economic and industrial development. In any individual case it is uncertain whether the net microeconomic impacts of MNCs are positive or negative, with equally strong and persuasive arguments existing on each side. Chapter 3 again examines these issues, but from a practical viewpoint. This is done through analysis of results from a survey of Australian-owned MNCs operating in Indonesia, Malaysia and Thailand to provide some measure of the frequency of these linkages, hence the size of the microeconomic benefits of the presence of MNCs.

3. The Relationship Between Multinationals and Local Firms in Developing Countries

3.1 Introduction

Two mechanisms, annihilation and learning, work side by side in improving the long run performance of firms. Economists have long understood the role of failure - but learning and cooperation have been less routinely acknowledged. By exchanging mutually beneficial information and capabilities, inter-firm cooperation can be a cheap and rapid way of discovering better ways of doing things.

The benefits of cooperation, which include the diffusion of knowledge and technology, occur when firms make contact with each other, whether they are in developed or developing countries, or are very large or very small. Cooperation can improve a firm's performance through trading capabilities with other firms, and gaining knowledge from their customers, suppliers, and other firms. Not all these transactions need be formal - firms can learn simply by watching others. Moreover some of the transactions are symbiotic in nature. For example, a customer might provide information about desirable changes in a product, which enables the producing firm to make higher quality products. The customer gets a better product, while the firm increases its competitiveness. The critical factor is that every firm learns to improve through self-analysis and hard-edged trading of information.

The previous chapter demonstrated that MNCs can be viewed as a storehouse of knowledge and technology which, if correctly accessed by local firms in developing countries, can lead to significant developmental and economic gains. This chapter uses results from a survey of Australian-owned MNC subsidiaries in Indonesia, Malaysia and Thailand to examine the forms of cooperation that occur between MNCs and local firms, and the factors which encourage this cooperation.

3.2 The interests of MNCs

MNCs have spent enormous amounts of both time and money building up high levels of information and knowledge, and developing technologies. It is these which give them their comparative advantage. Examination of the annual reports of Australian MNCs finds three common aims or 'strategic goals' of these companies:

- improved customer service;
- expansion (either of product range; sales; scale of production; or geographic reach); and
- recognised excellence in their field.

It could be expected that MNCs will only allow the diffusion of their knowledge and technology to the local firms in developing countries as long as this also adds to their comparative advantage, improves their business performance, or provides some such benefit in line with strategic goals.

It is difficult to immediately recognise the benefits to MNCs in developing countries of working with local firms, and many of the respondent MNCs did not use these opportunities to their best advantage. The inequality in size between MNCs and local firms seems to indicate these firms have little in common and that there is little an MNC could gain from working with a local firm. Yet, there are several reasons why MNCs may voluntarily share accumulated knowledge or skills, or provide access to technology to local firms, which are consistent with the guiding principle of profit making.

Often local firms in developing countries do not meet the standards demanded of suppliers by the MNCs. MNCs are in a position to help the local firms raise their standards. MNCs can work with local firms to increase their efficiency and help them become cheap, reliable, and most importantly, convenient suppliers and contractors for the MNCs. Local firms also may have knowledge of the local markets and customer preferences, so the relationship with MNCs need not encompass a one way flow of information or technology - both parties may have something to give.

The strength of the relationship between MNCs and local firms can fall anywhere along a continuum, from having sporadic contact through to the local firm forming an integral and irreplaceable part of the MNCs operations. Cooperation allows a firm to conduct transactions and/or receive information outside the firm in a way which is less costly than either internal production or complete arm's length relationships. The costs are lower than internal production because firms either trade capabilities or information in which they have a comparative advantage, or share fixed costs of some activity (such as a joint marketing program, acquisition of a particular technology or even specialised staff and equipment) with another firm. The greater the cost of transaction failure is, for example firms deciding not to buy at a critical time, the more transacting parties will need to coordinate and cooperate. Kreps (1990) demonstrated that repeated transactions often encourage cooperative behaviour. The principles of reciprocity, feedback and reputation discipline these arrangements: both parties have incentives to adhere to the implicit contract because both parties have something to gain. Cooperative behaviour need not spring from an altruistic concern for others, but typically represents self-interest.

Even without direct contact between MNCs and local firms there can be diffusion of information and technology. This was examined by Mansfield (1985) in the context of the USA. Mansfield questioned the CEOs of 100 firms across 13 industries to find the length of the time between the firm making a decision to develop a new product or process and that information being in the hands of other firms. He found that information about new products was generally in the hands of at least some rivals in 12-18 months and in about 20 per cent of firms this leakage took only 6 months. In the case of process decisions the flow was slower as they are developed with less communication and interaction with other firms. In some industries diffusion is accelerated as firms do not go to any great lengths to maintain secrecy, feeling this is futile. Mansfield concluded that despite the diversity of diffusion mechanisms between industries, the speed of transmission was very similar across all industries.

The situation in LDCs can be viewed as similar, but markedly slower due to the lower presence of factors which aid information flows - lesser communication systems, lower education levels, lower staff skills, and lower funds. Mansfield et al (1982) found that technologies transferred by US based MNCs to their overseas subsidiaries seem to leak out to non-US firms more slowly. There is evidence that MNCs are more hesitant to send their process technology overseas than their product technology, because they feel the diffusion of process technology, once it goes abroad, is harder to control.

At the other end of the scale is the last form of movement of information and technology between MNCs and local firms - forced cooperation. This is where government policy requires certain levels of local ownership, or locally supplied inputs, or another such stipulation which legally forces an MNC to work with local firms. This is further discussed in Chapter 4, and is often associated with disbenefits and a potential performance reduction for the MNCs.

3.3 MNC characteristics and links to local firms

A survey of 60 Australian MNC subsidiaries in Indonesia, Thailand and Malaysia, across all industries, was carried out to investigate the ways in which MNCs assist local firms in practice. All respondent firms agreed that cooperation with local firms is consistent with their corporate strategy. For example:

> We have a multi-domestic strategy where we do business in the host country.
>
> We rely heavily on local suppliers.
>
> ...generally form partnerships with suppliers and distributors.
>
> Local manpower, consultants and materials are used whenever possible.

The survey responses also showed some characteristics of subsidiaries which appeared to be related to their attitude towards assisting local firms. These were managerial style and location. This study only points to an apparent correlation, without any suggestion of causation. However, a knowledge of these factors

allows the MNCs more likely to work closely with local firms to be recognised. The two important characteristics are discussed further below.

Industry and managerial style seem to be closely interrelated - for example, particular industries are associated with particular managerial styles. However, whether this is cause, effect, or coincidence is uncertain. The type of industry within which an MNC operates has been thought to influence the relationship between MNCs and local firms through encouraging or constraining links with the rest of the economy. The nature of the linkages with the local economy may depend on whether the MNC is in the primary commodity, manufacturing or service sector, whether its end product will be used by producers or consumers, or if it is a high or low technology industry. These factors may all influence the level of integration into the rest of the economy. Surveyed firms could be divided into these various groupings, however, no patterns as to their interaction with local firms, in terms of technology transfer, labour exchange, customers or suppliers, could be discerned from their responses to the survey questions.

3.3.1 Managerial style

The Karpin Task Force (1995), in a study of Australian leadership and management skills, found that over time a gradual shift in the skills required of managers could be discerned. Figure 3.1 outlines the changing managerial skill requirements, hence profiles of both senior and frontline managers. This table represents a global pattern of change in managerial styles, but can be expected to proceed at different rates in different countries.

Simplifying the Karpin Task Force's subdivisions, the managerial style of the MNCs and their subsidiaries can be subdivided into what can simply be described as the 'new' and 'old' schools. MNCs whose managers display these opposing managerial traits have very different styles of interacting with local firms.

Figure 3.1: Managers require new skills - the situation in Australia

The Emerging Senior Manager Profile

1970 - The Autocrat	Today - The Communicator	2010 - The Leader/ Enabler
• Male	• Male	• Male or female
• Anglo-celt, British or Australian citizenship.	• Anglo-celt, Australian citizenship	• Wide range of ethnicities, citizenships.
• All management training on the job as rose through the ranks	• Graduate, possibly postgraduate qualification. Career in corporate centre. Product of internal management development program	• Graduate, probably MBA or AMP as well. Wide ranging career, many placements. Product of major development program, including placements.
• Very local focus, possibly even a State focus. Non-existent international travel	• Expanding focus. Travels regularly to Asia, Europe, USA.	• Global focus, travels regularly. Has lived in two or more countries.
• Established competitors, cartels	• Recently deregulated marketplace, rapidly changing competitors	• Manages in both regulated and deregulated economies.
• Paternal view of workforce	• Sees workforce as stakeholder in business. Working hard on communication and information sharing.	• Manages workforce in several countries. Shares information and delegates heavily.
• Stable environment. Relatively low stress. Long term position.	• Turbulent environment. High stress. Long hours. Fears burnout.	• Environment typified by rapid change. Limited term appointment. High pressure. Results driven.

The Emerging Frontline Manager Profile

1970- The Supervisor	Today - The Organiser	2010 - The Leader/Coach
• Male	• Male, possibly female in sales.	• Male or female
• Supervisor from position of accepted authority.	• Conflict in role between management's need for supervision and group's need for leadership.	• Clear role as leader and coach. responsible for developing employee skills.
• Operates in a highly hierarchical organisational structure	• Major changes in organisation structure (elimination of middle management).	• Flat organisational structure. Team leader reports to senior management.
• Values of role: - Control; - Organising; - Motivation by authority; and - Technical expert.	• Values of role: - Control; - Organising; and - Motivation by promoting teamwork.	• Values of role: - Performance management; - Facilitator; - Participative; and - Empowers team members.
• Low pressure work environment.	• Stressful environment due to organisational restructuring.	• Environment emphasises best practice, benchmarkng, quality and customer service.
• Experienced in field, with trade qualifications.	• Experienced in field, with trade qualification.	• Most have TAFE level qualification or degree.
• Little formal management training.	• Have formal management training for the position, but little management support for further learning.	• Have formal training for the position. Regular in-company training for further learning.

Source: Karpin Task Force (1995).

The old managerial school describes those MNCs in which most decisions, such as production levels and investment, are made by the parent company, albeit with some input from the subsidiary. For these firms how and where resources and skills are located and utilised is decided on the basis of the parent company's interests. In this sense the processes of resource circulation, capital accumulation and deployment of technology and skills within these MNCs are to a great extent determined outside the host country. There were several examples of surveyed firms with the old managerial style - particularly in the chemical industry.

For old managerial style MNCs the organisational structure is hierarchical, which in turn leads to a reliance on rules and regulations (both stated and unstated) to govern operations. Old school managers adhere to strict hierarchical channels of command and control. Such a managerial system can seem inflexible, but has often been developed over long periods of time and may suit the particular situation in which it operates. Indeed, when a subsidiary forms part of the production chain of the MNC as a whole, such a managerial style may be imperative for ensuring smooth operation and production flows. Kindleberger and Audretsch (1979) quoted a Canadian government study which characterised subsidiary corporations as truncated branch plants with a role confined to limited production and sales, and to their immediate supervision. Top management responsibilities and staff functions - such as investment decisions, research and development, market research, and systems development - generally remain abroad.

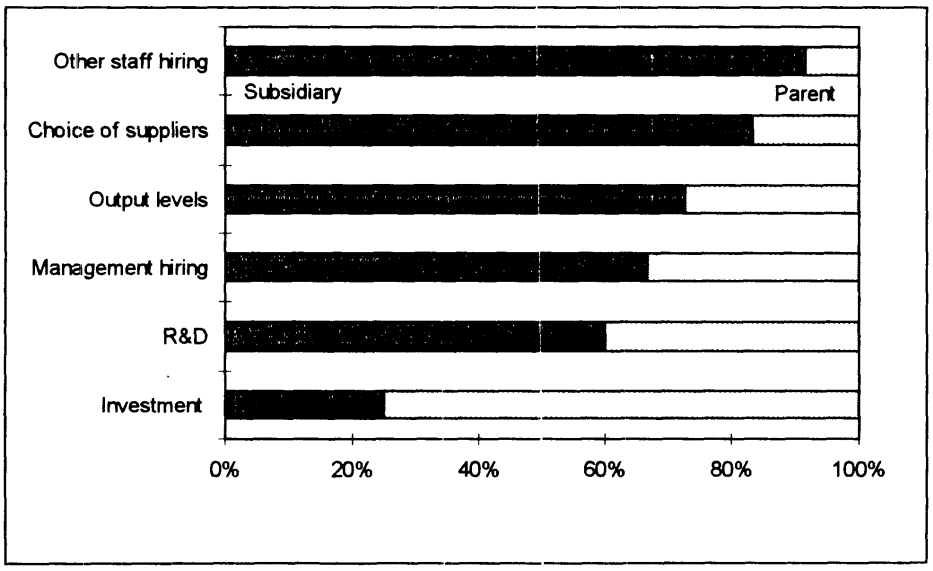
The other managerial school, the 'new' school, is almost diametrically opposed to the old school. The majority of the decisions are made by the executive of the subsidiary itself with, perhaps, authorisation from the parent company in some instances. There is a relatively flat organisational structure with decision making delegations being widely spread. This allows room for the use of personal judgment and innovative solutions to various situations by staff members. Such a structure is most common in tertiary industries where flexibility and personalised service is greatly valued and allows 'product' differentiation.

The survey showed firms in these managerial schools to have very different relationships with local firms. The old school MNCs, which comprise 44 per cent of respondents, tend not to have direct contact with local firms. Local firms provided only 33 per cent of their inputs and bought 71 per cent of their output. These MNCs prefer to use their existing international suppliers and their product is bought by other subsidiaries, the parent company or existing international customers. Information and technology are guarded.

On the other hand, subsidiaries with the 'new' school managerial style have closer relationships with local firms. MNCs with this managerial style formed 56 per cent of respondents. As more decisions are made by the subsidiary itself the opportunity for local firms to become more closely involved with the MNC is greatly increased. Local firms provide 94 per cent of their inputs and buy 82 per cent of their output on average, a markedly different pattern to that exhibited by MNCs with the old managerial style.

The survey asked firm managers to nominate in which business areas the prime responsibility for decisions lies with the subsidiary, and in which areas this responsibility rests with the parent company. Investment decisions were made predominantly by the parent company (Figure 3.2). All other areas of decision-

Figure 3.2 Decision making centres, subsidiaries and parent companies



making were the domain of the subsidiary, with varying levels of parent company involvement. Barring investment decisions, parent companies had the strongest input into decisions concerning research and development and the hiring of management. This indicates that parent companies tend to maintain control over the more important decisions.

3.3.2 Location

The relative merits of location when firms are working with each other attracts considerable debate. At one end of the spectrum there are voices emphasising the critical importance of working with customers and suppliers which are world leaders in their field irrespective of their geographical location which may be distant, while others think it vital for success that firms can make personal contact on a regular basis, therefore entailing a close geographic location.

These two needs are not incompatible. MNCs in developing countries offer the benefits of both situations to local firms - they are often operating at world best practice, or on a higher level than local firms, but with the additional benefits of a close location. Clearly the level of contact between MNCs and local firms is a major determinant of the level and speed of information and technology diffusion between the two. MNCs located near local firms operating in the same or related industries, in fact surrounded by them, will tend to have higher levels of diffusion to the local firms. This arises naturally due to everyday contact between these firms.

The survey of Australian MNCs operating in Indonesia, Malaysia and Thailand showed that the presence of local firms played a role in influencing the choice of location in 33 per cent of instances. In the majority of these cases this was in a positive sense, in that MNCs wished to locate close to both local suppliers and local partner firms. However, in one case the presence of strong local competition played a vital role in determining that the installation of domestic manufacturing by the MNC was not viable.

Maps 1-3 show the location of the respondent firms in the three countries, confirming the view put forward by New Consumer (1993) that MNC investment is actually concentrated in the richer, more advanced areas of the developing countries. This is only to be expected as these companies need access to infrastructure and workers, as well as markets. The tendency to locate in more developed areas presents problems to governments which are aiming for a more even spread of development.

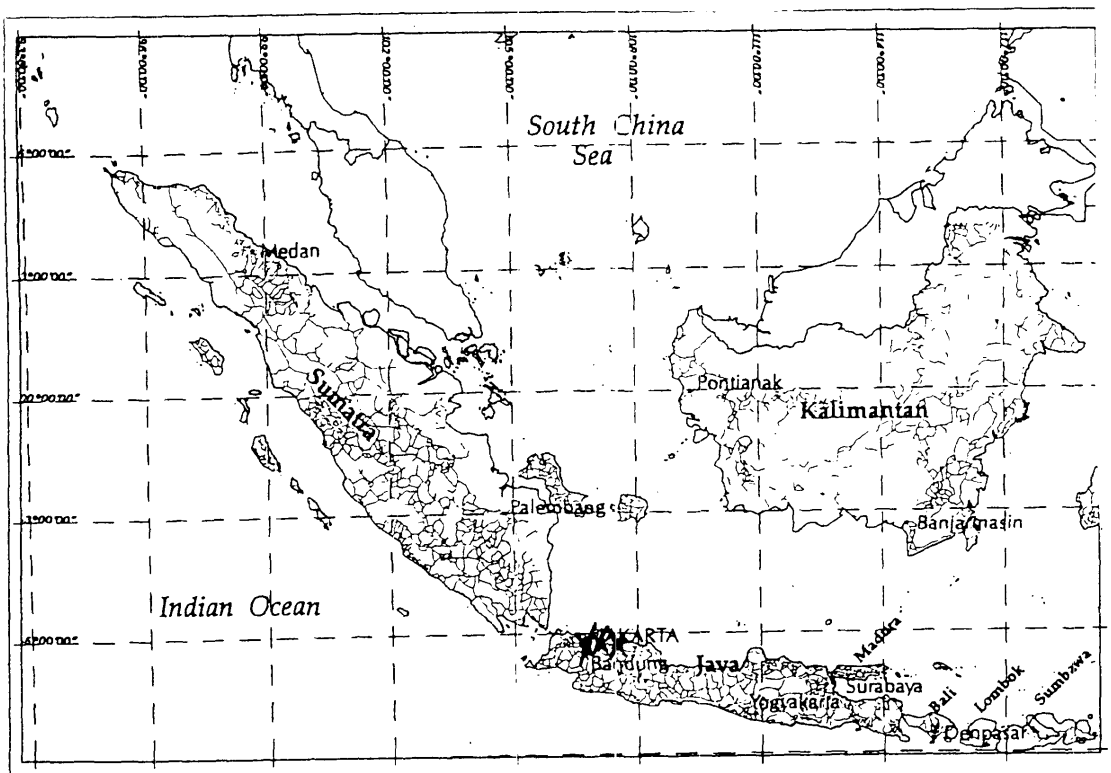
Porter (1990) noted the range of benefits of a geographic cluster of firms within an industry grouping.

> A concentration of rivals, customers and suppliers will promote efficiencies and specialisation...Rivals located close together will tend to be jealous and emotional competitors. Suppliers located close nearby will be best positioned for regular interchange and cooperation with industry research and development efforts. Sophisticated customers located nearby offer the best possibilities for transmitting information, engaging in regular interchange about emerging needs and technologies, and demanding extra ordinary service and product performance...Spinoffs have a tendency to locate near the original company, because entrepreneurs not only live there but have established relationships...Proximity increases the concentration of information and thus the likelihood of being noticed and added upon. Proximity increases the speed of information flow within the national industry and the rate at which innovations diffuse.

Among the numerous investment promotion schemes established in Indonesia, Malaysia and Thailand, export processing zones have attracted considerable attention. These are customs-defined areas in which goods or services may be processed or transacted without attracting taxes or duties or being subjected to

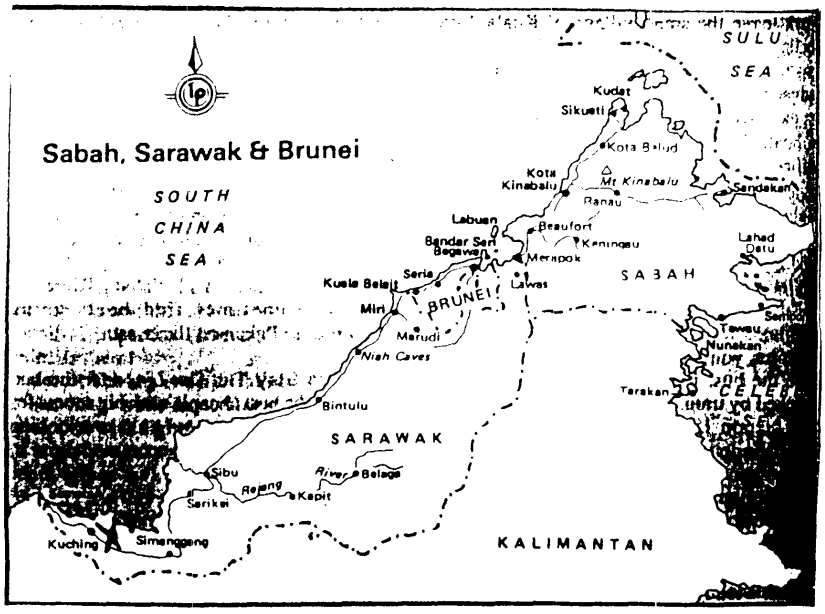
certain government regulations (Bannock, Baxter and Davis 1992). In many developing, and indeed developed, countries export processing zones have encouraged the co-location of MNCs and their isolation from local businesses. Malaysia has many of these areas - Praj, Praj Wharves, Pulau Jerejak, Bayan Lepas, Ampang/Ulu Klang, Sungei Way/Subang, Telok, Panglima Garang, Tanjong Kling, Batu Berendam Pasin Gudang and Senei export processing zone (United Nations 1992). The success of these areas in attracting FDI encouraged

Map 3.1: Indonesia, location of respondent MNCs

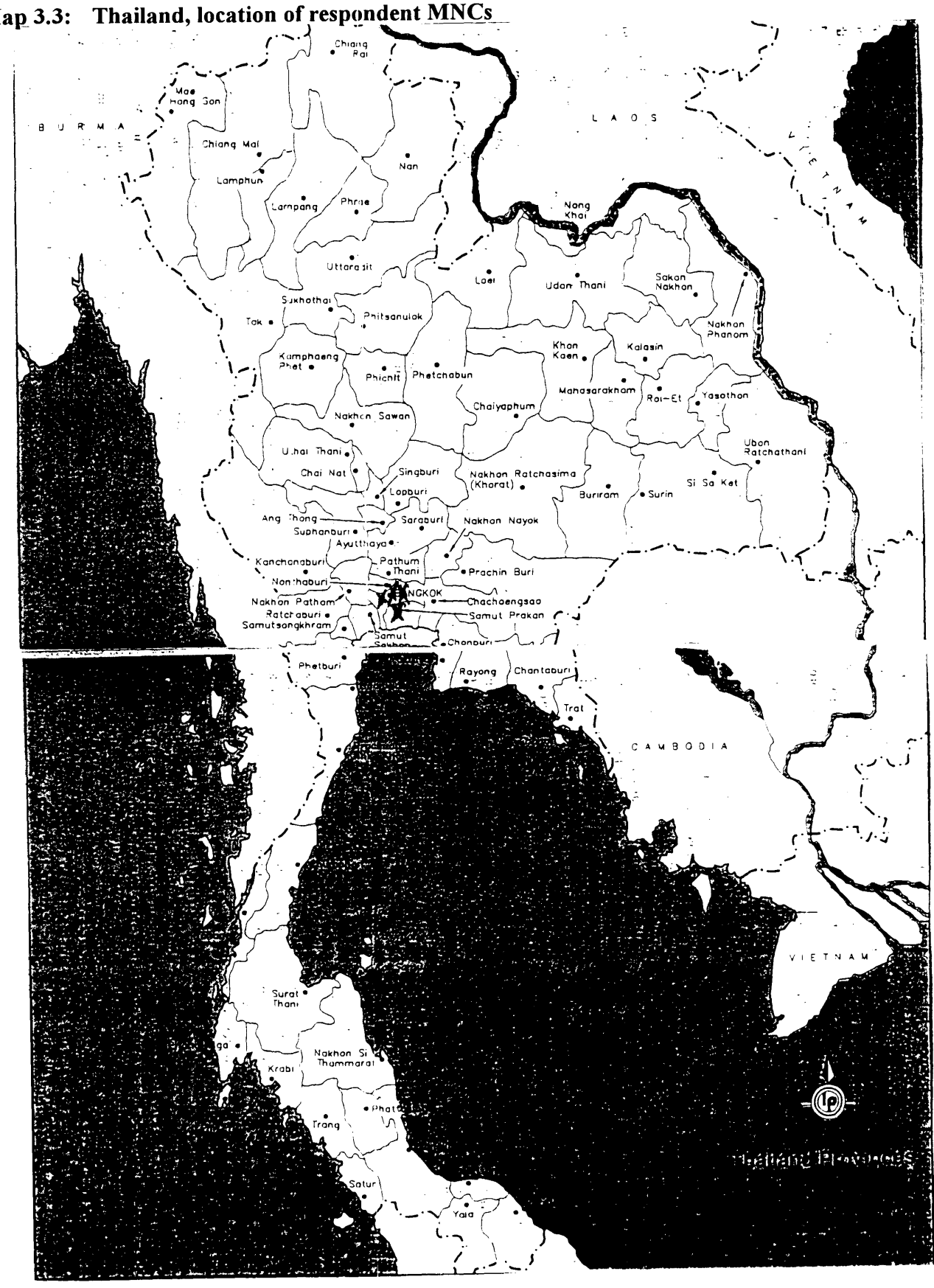


MAP OF WESTERN INDONESIA

Map 3.2: Malaysia, location of respondent MNCs



Map 3.3: Thailand, location of respondent MNCs



other countries to develop them also. Indonesia's export processing zones are Batam Island bonded zone, Tanjungpriok Harbour area bonded zone, Surabaya, and Sabang. Thailand has the Lat Krabang export processing zone.

None of the respondents to the survey were located in export processing zones. This may be explained by the fact that if goods are sold from the export processing zone into the host country duties and other charges are payable. Only 50 per cent of respondents exported a proportion of their product, and for these exporting firms the level of exports only averaged 25 per cent by value. Considering this, it is clear that these firms would not have greatly benefited from such a location as an average of 75 per cent of their sales are reliant on the domestic market.

3.4 The level of diffusion

Mansfield (1985) examined how the flow of information between firms took place. He noted that personnel movements from one firm to another, informal communication amongst engineers and scientists, and professional meetings at which information is exchanged, were primary channels of the spread of knowledge. In some industries input suppliers and customers were important channels, patent applications were scrutinised carefully, and reverse engineering was carried out. This section looks at the level of cooperation between MNCs and local firms and discerns the form that any such cooperation is taking.

3.4.1 Customers/Suppliers

Having an MNC with extensive links into the host economy encourages the development of local upstream and downstream industries. The growth stimulating effects of MNCs in segments of the host economy, however, do not add up to balanced overall growth as long as these linkages in the economy are lacking. Under such conditions, growth spurred by MNC investment may even

lead to greater dependence and distortions in the structure of society (Bierstecker 1978).

Chapter 2 (section 2.2) noted the range of studies showing that MNCs tended not to form backward linkages in host countries to any significant extent. Indeed, Kokko, Tansini and Zejan (1996) found that backward linkages rarely occurred in many branches of the manufacturing industry. The survey of Australian MNCs found a very different outcome, but nowhere near a perfect situation from the viewpoint of the local firm. Close to 83 per cent of MNCs bought some of their inputs from local firms. On average, those who bought from local firms relied on them for around 70 per cent of inputs by value. Indeed, only 20 per cent of MNCs using local firms relied on them for less than 50 per cent of inputs. The local firms selling their products to MNCs were predominantly medium (10-50 employees) and large (more than 50 employees) in size, in the case of 88 per cent of respondent MNCs. Small firms (less than 10 employees) played a lesser role as suppliers, acting in this capacity to only 38 per cent of respondent MNCs.

The type of products the MNCs are buying from local firms are predominantly raw materials, in the case of 66 per cent of MNCs, but also include small levels of semi-processed goods (33 per cent) and highly processed goods (17 per cent). This points to the potential for local firms to play an increased role in the production of both semi-processed and highly-processed goods for use by MNCs.

A similar story to that of backward linkages was found, by the survey, to exist for forward linkages. The survey results correspond with other findings (section 2.2) that forward linkages are more common than backwards linkages. Local firms form a major market for MNCs with 95 per cent of respondent MNCs selling to local firms. Those which dealt with local firms sold an average of 70 per cent of their output, by value, to these firms. However, again MNCs tend to deal more with medium to large local firms than smaller firms. Of course, smaller firms may tend not to deal directly with the MNC but buy its output through a third party. On the other hand those local firms purchasing from MNCs are of all levels of

technology. This suggests that MNCs provide inputs for local firms a source of that are otherwise unavailable or only available at a higher price.

This situation was reinforced by the survey finding that over half, 55.5 per cent, of MNCs subcontracted activities to local firms. These subcontracted activities ranged from those peripheral to the MNCs operations - building maintenance, vehicle maintenance, ground care - to functions central to performance. Integral functions carried out by local firms included equipment maintenance, transportation, and in the case of a building company, areas of design, construction and fit-out were subcontracted to local firms. This reliance on local subcontractors demonstrates that there are local firms in these countries which can be relied upon as a central player in the MNC's operations.

The high reliance by MNCs on the local market is an interesting feature. It may indicate that many of these firms were set up to exploit the local markets. When the ages of the MNCs' operations in these countries are examined (an average of 7 years) it is apparent that overcoming market barriers, such as tariffs, was most likely a prime motivation in the establishment of some of these offshore operations. Work by the BIE (1995d) ranked the main motivating factors behind investment abroad by Australian companies:

- access to markets with greater growth potential;
- access to lower input costs and more reliable suppliers of inputs; and
- host government policies.

This supports the trends indicated by the survey.

3.4.2 Technology

Technology transfer by MNCs may occur either through decentralising research and development to the subsidiary in the host country, or through direct investment in technology by the subsidiary. At first sight MNCs do little for technology transfer because their research and development is highly centralised. Only 8.3 per cent of respondent MNCs had established a research and development facility in

the host country and no firms carried out joint research and development with local firms. Research and development in MNCs tends to be run on the assumption that scientific knowledge is for internal circulation only so that international dissemination of technology takes place only between related MNC subsidiaries.

The decentralisation of research and development by MNCs through its transference to developing countries could be a very effective means of technology transfer. There is plenty of scope for it - tropical agriculture, more intensive exploitation of mineral resources and labour intensive technology - but the small size of the real markets within developing countries is a handicap. Although there are many people and firms, only a small proportion have the income to be targeted as a market by MNCs.

Despite the lack of research and development by MNCs in host countries, the survey showed some level of product application was done jointly with local firms. This is a closer form of relationship than that of customer/suppliers and often encompasses the sharing of technology and staff, as well as a substantial financial investment. Of the surveyed MNCs, 12.5 per cent had developed new products in concert with domestic firms.

The development of new products or technologies specifically for the local market indicates that an MNC has a strong commitment to the host country and creates an environment where technology transfer to local firms can occur through diffusion. Of respondent MNCs 58.3 per cent had developed new products, while 33 per cent had developed new technologies. This suggests that the claim noted in chapter 2 (section 2.3), that MNCs use outdated or unsuitable technologies when in developing countries, may be the exception rather than the rule.

The question of how the technology transfer takes place is an interesting one. To further examine Mansfield's (1985) proposition that informal communication and professional meetings were important sources of information exchange (highlighted in chapter 2) surveyed MNCs were asked how often their staff met with staff from local firms to discuss technology or technical problems. Only about one third of

respondent MNCs claimed to have staff involved in such a process. Of these firms, two thirds carried this process to its full extent, for example by formally attending industry association meetings where such technological topics were discussed, while the remaining MNC's staff only did so unofficially.

The type of technology supplied by the MNC is important. If MNCs are supplying the wrong type of technology for the local economy then it could be expected that the uptake by local firms will be low and problems of technical dependence may develop. In an inquiry carried out by ILO (1976), a survey of 78 MNCs, across a range of nationalities and host countries, revealed that 57 of them, that is 73 per cent, had not made any alteration in the production process they imported. Where technology had been adapted it was for reasons connected with the size of the market and the quality of the products.

It has been claimed that while the developing countries have rapidly increasing labour forces, MNC investment is capital rather than labour intensive, and thus does little or noting to reduce the severe unemployment problems that plague these countries (Barnet and Muller 1974; Frank 1981; Spero 1984; Akinsaya 1989). Indeed, respondent MNCs believed they used higher levels of technology, that is were more capital intensive, than local firms in the same industry in 72.7 per cent of cases and used the same level of technology in only 27 per cent of instances. MNCs claimed to be less capital intensive than local firms. The large technology gap between the MNCs and the local firms which was shown by the survey to exist in many cases may cause problems in the transfer of technology appropriate to the situations of local firms.

Even if the charge is true, one must ask why a company concerned solely with profits would employ expensive and sophisticated capital intensive technologies and thus deliberately pass up the gains to be made from the use of cheap labour? The answer is not hard to find in the orthodox neoclassical view of the determination of the choice of technique (see Little, Scitovsky and Scott 1970). Many developing country governments have imposed minimum wage laws, prohibited the layoff of domestic workers during slack periods, or adopted other

policies that have increased the price of labour relative to capital. On the other hand, government restrictions on the importation of used machinery coupled with host country pressures on MNCs to employ the most modern and sophisticated technologies are common in the developing countries, as are overvalued exchange rates, ceilings on interest rates, and subsidies and tax breaks for the importation of capital equipment. The result is a systematic and substantial reduction in the cost of using capital. The net effects of such policies is to distort the price structure in such a way as to encourage firms operating in the developing countries, foreign as well as domestic, to employ unnecessarily complex, capital-intensive technologies (Frank 1981; Pack 1981; Ranis 1981; Krauss 1984; Nafziger 1984).

Regardless of the apparent technology gap between MNCs and local firms, the respondent MNCs recognised that significant levels of technological transfer to local firms had occurred. Two thirds of respondents had been involved in the transfer of technology to local firms Production, process and marketing technology were the main forms of technology which were directly transferred. Specific technologies transferred to local firms by MNCs included a new packaging technology; a patented technology used to reproduce products only otherwise available through import; and new construction techniques. In addition 12.5 per cent of MNCs believed that as well as being involved in direct technology transfer, information leakage from their company had resulted in technology transfer to local firms. This technology transfer primarily occurred in the areas of production and marketing. The remaining third of respondent MNCs believed they had not caused the transfer of any technology to local firms, either by direct transfer or by diffusion. This indicates a large pool of untapped potential for local firms, but may also suggest an unwillingness on the part of some MNCs to cooperate with local firms in the area of technology.

3.4.3 Training and employment

Dunning (1993) showed that many studies have concluded that the workforces in MNCs tend to include a higher proportion of skilled, technical and managerial staff

than those of local enterprises. An MNC can assist the local economy by providing a source of employment and at the same time aid local firms by training nationals who may eventually open their own company or work for a locally owned firm.

MNCs generally have highly developed training schemes which are widely implemented. One surveyed MNC even sent more senior staff to the parent company for specialised training. Overall the survey found that the MNCs led to the introduction of new workforce skills in 83.3 per cent of cases. These were developed through 'on-the-job' training, and through the introduction of industries which were relatively new to the host country and so encompassed new techniques and worker skills. Some examples are outlined below:

> To install new systems of quick construction methods.
>
> All levels of staff have been trained to cope in the petrochemicals environment.
>
> Our company has introduced the latest steel sheet coating technology equipment into Indonesia and trained staff to use it.
>
> Staff have been trained in form work, concrete and precast work.

Although staff movement from MNCs to local firms may be good for the local firms too high a rate of loss is not good for the MNCs as it means a drain of skilled staff. To overcome this problem the MNCs responding to the survey tend to pay higher wage rates than do domestic firms in the same industry. Two thirds of surveyed MNCs paid higher wages than average, primarily to ensure that quality staff are retained, but also to compensate them for higher performance, dangerous working conditions, and high levels of responsibility. There was also mention made of competition with similar firms for limited skilled staff, requiring the payment of higher wages.

Critics of MNCs argue against the payment of higher wages saying this widens the income gap between the elite and the masses, thereby creating polarisation and social conflict between economic classes in developing countries (Nafzinger 1984; Akinsaya 1989). Although surveyed MNCs claimed to be paying higher wages than similar domestic firms, this may not be the case across all skill levels. Whether this is the case is not discernible from the survey information.

In Australia in the past, wage rate increases have been closely linked to union action and pressure. As a matter of policy, none of the MNCs surveyed employed unionised staff, despite two thirds paying higher wage rates than average firms. So it must be other factors such as scarcity of skills, performance and responsibility that motivate the higher wage payments. Assuming that the higher wages are not universal within an MNC, unskilled staff, in particular, may have no clear way of pushing for wage increases. This finding confirmed the point raised in chapter 2 (section 2.4) that MNCs may take advantage of the industrial relations systems of developing countries. Indeed one representative of an MNC went as far as saying that in instances of strikes by workers "the army was called in to quickly sort things out". This is not a state of affairs of which the industrial relations system in Australia would be supportive.

Half of the surveyed MNCs experienced loss of staff to local companies. Across all the respondent MNCs an average of 17.4 per cent of unskilled workers were lost each year and 16.6 per cent of skilled workers. One quarter of MNCs lost managerial staff, and on average for these MNCs this was around one third of their managerial staff. So for those MNCs experiencing staff turnover the overall average rate was 18.7 per cent. This is not a healthy state of affairs for either MNC performance or staff morale. It is, however, a good situation for the local firms gaining these trained staff.

Staff leaving MNCs for majority locally-owned firms tend to move to large firms (more than 50 employees) or medium sized firms (10-50 employees). The survey presented no evidence of staff moving to small firms. This raises questions as to the appropriateness of skills learnt in the environment of an MNC to self-employment or small firms. The skills gained may be more appropriate to a firm with a hierarchical structure.

3.4.4 Managerial expertise

Frank (1981) noted that a substantial majority of managerial positions in subsidiaries of MNCs are held by nationals. He surmised this was because of the

expenses involved in transporting and maintaining foreign managers and their families. On the other hand chapter 2 (section 2.4) noted the findings of a range of other studies pointing to a reliance by MNC subsidiaries on export markets. The survey, however, supported the finding of Frank (1981), as all MNCs claimed it was their objective to have all, or at least a majority, of managerial positions filled by nationals.

> Where qualified personnel are available, the company prefers to appoint local nationals to run the local operations.
>
> The company's multi-domestic strategy is to get locals into all managerial positions.
>
> Eventually all expatriates will be replaced by suitably trained and experienced nationals.
>
> At least 50 per cent is the aim for Indonesians in management positions. Skilled positions are always local Indonesians. Our business is new and we are developing replacements for expatriate positions.

Despite the stated objective of the majority of MNCs for full local representation in managerial positions there was no clear indication that this occurs over time from the data presented by the respondent MNCs. The lack of suitably skilled staff may be the limiting factor and indeed was noted by several firms as a proviso to their target being attained.

On average 74 per cent of managerial positions are currently held by locals in the surveyed firms. This is as high as 80 per cent when a weighted average is taken. The high level of local involvement in management corresponds to the high level of transfer of management practices into the country. Indeed 58.3 per cent of firms claimed to have introduced new managerial practices. This was done through in-house training programs involving consultants from both inside and outside the company; overseas seminars and training for management in the company culture and practices; and on-the-job training. The particular management skills learnt cover a variety of areas: ISO quality systems, continuous improvement, safety practices, and financial systems. Many references were made to the high quality of both Australian and American techniques in management and indicated benefits were gained by the host country from their introduction.

3.4.5 New markets

Section 3.4.1, above, looked at the role of local firms as customers and pointed to the importance placed on the development of new domestic markets by Australian MNCs surveyed. The development of new export markets by local firms can be viewed as an extension of the development of new domestic markets. Chapter 2 highlighted the benefits to local firms of the development of new export markets through cooperation with MNCs.

A study by the BIE (1995b) found that when cooperation by Australian firms was examined, export market knowledge was the second most important benefit arising from the cooperation, being experienced by 37 per cent of cooperating firms. However export market knowledge was often unexpected and described as a "positive spin-off" of cooperation. In a developing country this potential secondary benefit of cooperation between MNCs and local firms may be slower in developing than in an industrialised country, due to the differing stage of development of local firms.

New export markets for MNCs arising through cooperation with local firms were very rare, with only 8.3 per cent of the respondent MNCs having export arrangements with local companies. These arrangements were with large firms (more than 50 employees) and involved an average of around 15 per cent of these MNCs' exports. The reasons behind this finding may be varied. It could suggest that local firms are often not considered to be up to the standard MNCs require of a partner firm, that the MNCs are not necessarily interested in exporting, or merely that this is an area of cooperation which has not yet been fully exploited. Considering that only 50 per cent of respondents exported a proportion of their product, and on average amongst these only 25 per cent by value, it may well be that MNCs are not interested in developing export markets in concert with local firms.

3.5 Is the presence of MNCs deleterious to local firms?

Dangers are apparent in too close a partnership between MNCs and local firms. The threat of the takeover of indigenous industry by foreign owned MNCs drives this fear. The ILO (1976) found MNCs, in attempting to maintain their positions against world rivals and in individual markets, seek to maintain their competitive advantages by diversification. They accordingly have a tendency to set up dominating positions, first in the industries they invest in and then in allied branches, either downstream or upstream. Contreras (1987) argued that the superior technology, market contacts, and managerial expertise of MNCs may inhibit the development of domestic entrepreneurship.

This fear of takeover is shown by the survey findings to be a fear based in reason. A quarter of respondent MNCs established their operations in the developing country through the takeover of an existing local firm. Of course the takeover of a local firm is not necessarily a bad thing, although some have tended to argue solely from this ideological viewpoint. An example of this argument is provided by Lall and Streeton (1977) who said

> The unrestricted entry of MNCs into an underdeveloped economy with weak national entrepreneurial class will cause all the dynamic economic sectors to be taken over by MNCs with the domestically owned industrial sector relegated to the role of provider of ancillary inputs.

It is true that local businesses are sometimes smothered by the entry of an MNC. But conclusions such as that drawn above do not follow. If an MNC is able to offer enough to buy out a locally owned firm, both parties must believe the MNC is able to utilise those assets more productively than the local firm. This is clearly of benefit to the economy, albeit this benefit is reduced by the overseas transfer of profits. The same is no less true for local firms driven into bankruptcy by MNC operations. The level of benefit to the host economy from a takeover of a local firm by an MNC relative to economic benefits of the MNC setting up a new firm is dependent upon how much transformation of the local firm takes place. For the government to stimulate local businesses by protecting them from competition

rewards inefficiency and harms local consumers who must pay higher prices, either directly or indirectly in the form of subsidies for the products they buy.

Finally, it is not necessarily true that local businesses cannot compete with MNCs. Local businesses often have advantages such as a better knowledge of the market or lower overhead costs that will enable them to be quite competitive. Ayittey (1988) observed that many native businessmen, despite their lack of capital and business skills, competed successfully with developed country firms. But even where the MNC does achieve a monopoly position this may still not harm local consumers. Not only do excessive profits correct themselves by attracting new entrants, domestic or foreign, but while direct investment may gobble up competitors and exploit its monopolistic advantages, its main impact is in widening the area of competition. Domestic markets are protected, if not by tariffs, at least by distance, ignorance, and lethargy. The small inefficient domestic producer is typically more of a monopolist than the large monopolistically - competitive wide-ranging firm. Such a domestic market thrives on high prices and low volume. The cost advantage of the intruder is so great, even when its conduct is not aggressively competitive, that prices are reduced, volumes are expanded and the monopolistic phenomenon extends the area of competition (Kindleberger and Audretsch 1979).

3.6 Conclusion

Local firms in developing countries are able to gain benefits from the presence of MNCs. By exchanging mutually beneficial information and capabilities, inter-firm cooperation can be a cheap and rapid way of discovering better ways of doing things. This chapter has shown that these firms are gaining through staff training, technology transfer, the development of new products, the opening of new markets, and improved managerial skills.

The strength of the relationship between MNCs and local firms can fall anywhere along a continuum, from having sporadic contact through to the local firm forming

an integral and irreplaceable part of the MNCs operations. All respondent firms agreed that cooperation with local firms is consistent with their corporate strategy. The survey responses also showed some characteristics of subsidiaries which appeared to be related to their attitude towards assisting local firms.

However, the occurrence of the linkages and the subsequent benefits described above are not commonplace, and there may even be dangers to local firms in the presence of MNCs. The following chapter examines the role that government can play in encouraging faster diffusion of knowledge and technology to local firms through appropriate policies and programs.