FRIEND OR FOE?

LEVERAGING FOREIGN MULTINATIONALS IN THE AUSTRALIAN ECONOMY

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This same motivation drove the Australian Business Foundation to commission this study on the contribution of foreign-owned multinational corporations to the Australian economy by Dr Lyndal Thorburn of Advance Consulting & Evaluation Pty Ltd, in association with Dr John Langdale and Professor John Houghton.

Against the backdrop of debates about Australia as a branch plant economy and concerns about mergers and takeovers by foreign-owned firms and loss of Australian icon brands and jobs, the Australian Business Foundation sought to better understand how multinationals were interacting with local firms, beyond the usual economic measures of direct investment and employment.

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1 Executive Summary

Introduction

This study has been undertaken with the aim of providing an evaluation of the contributions made by foreign multinationals (foreign MNCs) to the Australian economy. The report has been structured with two audiences in mind: a primary audience of governments and their agencies, whose policies promote inward investment, and a secondary audience of small to medium enterprises (SMEs) which may have foreign MNCs in Australia as their customers.

For the purposes of this study we define foreign MNCs quite broadly. They include firms that integrate research, production and distribution across at least two countries but are headquartered outside Australia, as well as "multi-domestic firms" where the Australian subsidiary is simply a sales/marketing outlet controlled by head office.

The study was conducted during the first half of 2001. The main sources of data were interviews with senior executives/Chief Executives from 30 foreign MNCs, coupled with a written survey of 56 smaller suppliers who had both foreign MNC and Australian customers.

Approaches to Measuring Host Economy Integration

The local integration, or embeddedness, of a foreign firm into the Australian economy must be set in the context of the parent firm's global strategy as well as the forces which shape growth in particular industries. These forces include technological change, the competitive environment and deregulation. Different measures may be more relevant for some firms than for others. The key dimensions which were selected for this study have been drawn from the international literature and are as follows:

- The value chain, comprising suppliers, customers, and and providers of research and development (R&D). MNCs often have substantial impacts on domestic suppliers, and more limited impacts on competitors and customers.
- Clustering and local integration. Clustering has been an important factor in the development of regions such as Silicon Valley, which Australia wishes to emulate. Training of skilled staff is also important in this context as staff move from firm to firm and thus transfer intangible skills to other firms in the region.
- Strategic alliances, joint ventures, mergers and acquisitions (M&As). Alliances are an important learning mechanism. Mergers and acquisitions lead to increased industry concentration and drive globalisation.
- Knowledge networks and global knowledge management. The role of global knowledge networks is increasingly recognised as being central in the growth of companies in a globalised world.
- Decision-making and reporting within MNCs. Internal reporting systems influence the degree of autonomy that the subsidiary has in its local market and also impact on its ability to contribute to regional or global product or service developments.
- E-commerce. E-commerce will affect supplier relationships, operations, distribution, marketing and sales and after-sales care. These changes will in turn affect organisational structure and inter-firm relationships. Uptake of e-commerce by foreign MNCs may affect their integration into host countries.

Impact of Foreign Firms

The three key areas where foreign firms have an impact are in building Australia's capabilities and critical mass, extending Australia's global reach and building skills and knowledge.

Capabilities and Critical Mass

MNCs are improving suppliers' product and service standards by being demanding customers. While some suppliers find it difficult to work for MNCs, those that have developed good working relationships have improved their quality standards and have also gained market standing from selling to MNCs. Some MNCs also work with customers in researching and understanding the market, so that these linkages enhance the efficiency of Australia's marketing system.

On the negative side, MNC respondents do little R&D in Australia and what is done here is focused on product modification. A few did basic R&D but some of these registered the resulting intellectual property through their parent firm, thus reducing the standing of the Australian research. Despite relatively low levels of R&D, many respondent MNCs do transfer technology from their parents into Australian firms.

Strategic alliances were also significant for a small number of MNCs, particularly those in technology-intensive areas and where the MNC also did its own R&D in Australia. Alliances between a minority of MNCs and their suppliers and/or customers were particularly important. Suppliers reported benefits including increased international exposure, access to projects that might otherwise not be available, and development of concepts for new product development. Some MNCs have acquired suppliers that have knowledge of the Asian market or other skills.

Global Reach

Foreign MNCs may export in their own right, particularly if the firm is also a designated regional headquarters (RHQ) for the Asia Pacific region. These subsidiaries are also likely to employ more people. RHQs, however, are subject to change and many firms operated RHQs across several cities in the Asia-Pacific region in order to meet both employees' preferences for employment location as well as governments' requirements for RHQ status and accompanying incentives.

Centres of excellence, which are key centres that develop new products and services for the global firm, are much more significant and are more anchored in Australia as they emphasise technology development and draw on external services. Centres of excellence with global and/or Asia-Pacific mandates make an important contribution to the Australian economy and represent a way of attracting a significant R&D presence.

Global reach is also achieved by Australian suppliers which sell to MNCs and, as a result, access overseas markets through selling to other subsidiaries of the firm or to unrelated firms introduced by their MNC customer. E-commerce also provides further opportunity to expand global reach, as some MNCs have used Australia as a testing ground for roll-out of e-commerce systems. This provides an opportunity to gain access to new systems ahead of other countries. Australian firms that are involved in these test systems can then export their skills when the full systems are implemented in other countries.

Knowledge Flows and Skills Development

The ability of Australia to obtain access to global knowledge networks of MNCs depends on the role of the foreign subsidiary in the MNC world-wide. Subsidiaries of foreign MNCs can use their links with parent and sibling firms to access global knowledge that would otherwise be inaccessible. This is especially important if the subsidiary undertakes R&D in Australia.

This knowledge can flow through to Australian suppliers if it is not part of the MNCs' core intellectual property. Australian suppliers can then improve product and service quality and adopt new management skills. Another important but under-utilised area of knowledge exchange is joint R&D with universities and research organisations. Increasing such alliances, perhaps in conjunction with establishment of centres of excellence, will increase the embeddedness of MNCs in the economy.

MNCs also develop the skills and knowledge of their staff by providing them with opportunities for international experience. Many MNCs had well-developed staff training programs that operated at all levels of the firm. These programs contribute to the attractiveness of foreign MNCs to local employees. The skills and knowledge held by these employees is a major asset for Australia, since they generally spread into the wider Australian economy over time.

Overall Impact

We posed the question in the report's title as to whether MNCs are friends or foes to Australia. Overall, we argue that the impacts of MNCs are positive, but there are a number of negative impacts. In summary, the negative impacts are as follows:

- Many sales and marketing MNCs have limited links to Australian firms and a restricted impact beyond direct employment and investment in infrastructure.
- There may be limited R&D and limited links with institutions in the national innovation system.
- Many MNC respondents were reducing manufacturing capacity and had restricted clustering with suppliers.

There are some areas where the impacts are not clear. These include:

- Strategic alliances, restricted by low levels of R&D and limited manufacturing in most sectors.
- The impact of e-commerce on relationships with suppliers and customers. At present, MNCs' focus is on finding the right business model and on domestic experimentation with e-commerce projects.

There are positive impacts gained from MNCs that have a significant role in product and service development at regional or global level. In summary there are:

- Benefits in employment and exports from significant RHQs, although these benefits may not persist in the longer term.
- Significant and long term benefit through centres of excellence. These are integral to the global success of the foreign MNC. They require substantial investment and, once established, may be less subject to arbitrary decisions regarding their location. They may also have greater links with the national innovation system and, through their own links to global R&D centres, may link Australia's research groups with

global expertise. These links may in turn help the foreign subsidiary bid for further regional or global mandates.

- Benefits also accrue when the foreign MNC has sufficient access to internal knowledge flows, especially if they perform R&D in Australia. Senior executives who keep the lines of communication open can gain access to formal and informal knowledge, can influence the global direction of the firm and can argue for the allocation of resources and responsibility to the Australian subsidiary.
- Transfer of knowledge and expertise from foreign MNCs to Australian suppliers. This, in turn, increases the quality of their suppliers, an effect that will have flow-on benefits for other firms for which the suppliers also work.
- Training and skill development for Australian staff of MNCs, through international transfers and formal training programs.
- Testing of new products and services in Australia, providing opportunities for Australian suppliers to increase their technical capacity ahead of roll-out of these systems across the firm globally.

There were some significant differences between firms by nationality, management type and mode of entry. These variations show that it is dangerous to take a "one size fits all" approach to promoting inward investment. As a group, US respondents were larger but were less likely to have RHQ structures that gave the local subsidiary autonomy. They were also less likely than UK/European respondents to export and to undertake R&D. Overall it appeared that UK/Europe respondents were more outward looking and their subsidiaries had a greater contribution to make to global operations.

There are also significant differences between MNCs according to their contribution to the regional or global product development of their firm as a whole. Employment was highest in firms that had only a local mandate but these firms were unlikely to be RHQs and also had less autonomy. MNCs that had a regional or global mandate were much more likely to export, work with customers, transfer technology to customers and be in control of product development than local mandate firms. Thus, they are likely to have a greater positive impact on the economy as a whole.

Implications

While Australia is globally well connected, it faces a problem of limited interest on the part of foreign MNCs. It is crucial for Australia to access new technologies and management know-how in order to be internationally competitive. A "go-it-alone" strategy is not an option if Australians are to maintain their current high standard of living.

Overall, this study has implications for inward investment programs, processes to build new skills and competencies, and the ability of suppliers to capitalise on MNCs as demanding customers and standards setters.

Refocus Investment Attraction

A key objective of government policy must be to increase the size and depth of knowledge-intensive MNC activities. Policy should favour centres of excellence, which contribute to Australian capacity building and global reach. In order to do this, Australia must move beyond promoting "natural" benefits such as Asian time zone or English language, as these do not provide cogent reasons for MNCs to locate in Australia rather than in Singapore or Hong Kong. Australia's focus should be on promoting national business, cultural and other characteristics that offer real, sector-specific business benefits for incoming firms. A possible model for inward investment attraction is AXISS which, while part of Federal Treasury, is a specialist agency with expertise in the financial services sector and which conducts coherent investment attraction marketing campaigns targeted to that sector to capitalise on Australia's competitive advantages for financial services. The key sectors where a similar focused effort may provide dividends include ICT, pharmaceuticals/ biotechnology, food, education and health.

Leverage Australia's Business Culture Strengths

A strong and innovative business culture can enhance Australia's international competitiveness. There are opportunities for Australia to promote itself as a location for testing new products and services. This is an area where the Federal Government can play a role and it has the added advantage of providing early access to new technologies and in enhancing the Australian market's global awareness.

It is reported that Australian staff also "connect" more easily with people from other countries in both Asia and US/Europe. Australian staff are also willing to question decisions made by headquarters and to strongly argue their position. Australia needs global business cultural linkages with the major industrialised countries of North America and Europe. At the same time, it needs to forge regional business cultural linkages within the Asia-Pacific. These linkages can be promoted by industry associations, which can assist their members to understand overseas business cultures; and governments, which can continue to promote outward looking Australian industries.

Create Regional and Global Centres of Excellence

Governments need to focus on expanding the number and significance of MNC centres of excellence, rather than on attracting RHQs. These policies must go hand in hand with complementary policies that continue to boost business enterprise R&D, enhance business management skills, improve product and service quality and increase links between industry and public sector research institutions.

The Federal and State governments should also support Australian-based CEOs wishing to expand the range of products and services of their Australian operations, establish global or Asia Pacific centres of excellence or build and maintain product mandates. Further, they should help these CEOs argue against closure of Australian operations if they can do so in the context of commercial senstivities.

Draw on MNCs for New Skills and Competencies

Training and skill development of employees is a central issue for Australia in its shift into a knowledge-based economy. It is clear that MNCs play a significant role in exposing Australians to global training and skill development.

Australia could also do more to make it more attractive for expatriates to help to build Australian firms, by learning from the experience of other countries that have targeted the skills, personal networks and capital of their nationals located overseas. Both firms and the Commonwealth Government should build networks with overseas expatriates to take advantage of their expertise and "local knowledge" of markets and regulations and the like to brief Government and companies. This will contribute to developing a more globally aware and orientated Australian economy and will also create communication channels to assist expatriates' return to Australia should they wish to do so.

Capitalise on MNCs as Demanding Customers and Standard Setters

Australia has suffered from a lack of large and demanding customers that "pull" suppliers into innovative products and services. Australian suppliers need to recognise the long-term benefits from gaining MNCs as customers and must aggressively seek this business, even though the short-term costs of product and service certification may be high. These developments can be mediated through the firms themselves, through industry associations or through MNCs seeking to build supplier competencies.

Conclusions

The study has shown that there are both advantages and disadvantages of MNCs' operations here. Treating MNCs as foes, however, is not helpful in the longer term. Australia has been distracted by arguments about branch plant economies, and the potential loss of jobs or "Australianness" when an Australian firm is purchased by a foreign-owned company. We must make the most of the positive impacts of MNCs operating in Australia so that we can build an economy that has access to global knowledge and skills and contributes to global product and service development.

Foreign MNCs that have built up local research, management or export expertise, and which have company structures that enable the Australian subsidiary to influence regional or global strategy, can benefit Australia and may be strongly embedded here. Australia must work to increase these types of relationships in order to maximise benefits of MNC operations here. It can do this by refocusing investment attraction programs on areas such as ICT, biotechnology and pharmaceuticals, banking and finance, food and education; leveraging and building the strengths of our business culture; encouraging creation of centres of excellence; and capitalising on MNCs as demanding customers.

It is clear that the role of foreign MNCs is critical, because no country is able to keep abreast of all areas of knowledge. As MNCs play a major role in our economy, it is essential that we develop focused strategies to benefit from their presence. Local industry development policies must make our firms and research institutions relevant to foreign MNCs. Not only must we attract foreign MNCs for their jobs and money, we must attract them with the explicit purpose of transferring intangible knowledge and skills to Australian firms through research and training institutions, suppliers and customers. This will then enable further building of our R&D capacity, global management expertise and exports, and will also help convert public opinion about MNCs in Australia. These "global" policies must make Australia more relevant to global MNCs, by creating a stronger global "brand" which emphasises R&D rather than "sun and sand", or by supporting the activities of local CEOs bidding for global and Asia-Pacific mandates.

Although working with foreign MNCs may not be easy, many SMEs have used these relationships to enter global markets and to build domestic capacity. The benefits are long term. Australian firms, working alone, through their industry associations or with the help of governments, should seriously assess how they can work with foreign MNCs in order to increase their skills, create long term benefits and become players on the world stage.

TABLE OF CONTENTS

2 Context and Methodology

2.1 Introduction

Sharp divisions in the community exist over the nature of Australia's engagement in the global economy. The debate has encompassed such issues as:

- The fear that Australia will develop as a branch office economy, with headquarters of major Australian firms shifting offshore.[1]
- Concern that major Australian firms will be taken over by foreign-headquartered multinational corporations (foreign MNCs), resulting in a loss of headquarter functions, R&D and associated multiplier impacts for Australian business services and other local firms.
- Resurgence of a protectionist sentiment in particular segments of the Australian community.

It is not the purpose of this study to debate these issues; rather this study considers the relative advantages and disadvantages of the role of foreign MNCs in the Australian economy. This study aimed to assess the value of MNCs' contributions and to identify how the positive effects on the Australian economy can be maximised. The report has been structured with two audiences in mind: governments and their agencies, which administer inward investment programs, and small to medium enterprises (SMEs) which may have foreign MNCs in Australia as their customers.

Definitions

For the purposes of this study, we define foreign-headquartered multinationals (foreign MNCs) quite broadly. MNCs are usually defined as firms that integrate research, production and distribution across at least two countries including Australia, and where the headquarters of the firm is not in Australia. Such firms are structured to take into account different technologies, skills, resources, regional trade agreements, time zones, languages, cultures and government policies. The definition also encompasses firms that operate "multi-domestic" strategies, i.e. control by head offices with the subsidiary only responsible for sales and marketing, and perhaps some manufacture.

Firms which have been founded in Australia and have since grown to be multinational in operation ("Australian MNCs") have, however, been excluded. This is because of our desire to avoid arguments about Australian head offices locating offshore – this is a distraction from the issue at hand, and must be considered elsewhere.

2.2 Background

This study has emerged from the interest of the Australian Business Foundation (ABF) in international perceptions of Australia, our competitiveness and global industry development models.

The Foundation's report *The High Road or the Low Road: Alternatives for Australia's Future* (Marceau et al. 1997) raised interest in Australia's industrial structure and growth. On the positive side, Australia has a large and growing services sector, and Australian industry in general has increased its R&D intensity in response to a number of government policies introduced since the early 1980s. Our export of knowledge

[1] See, for example, Dabkowski, Steve (2001): Corporate Shake-up is Global Wakeup, The Age, 24 March 2001, Business News Section, p3

intensive manufactures has also increased and firms are increasingly turning to co-operative business arrangements to boost company performance.

On the negative side, Australia has substantial deficits in many knowledge-intensive, innovative industries and surpluses in less knowledge intensive industries: the opposite trade structure to what is currently considered as advantageous. Furthermore, our employment structure appears to be shifting towards lower paid, lower skilled industries and, compared to the OECD average, our R&D levels are low (Considine et al. 2001). There is also evidence that domestic industrial linkages are declining and our industrial structure is becoming more concentrated in large conglomerates. In 1997, ten leading companies undertook 25% of all business enterprise R&D and four of these did as much R&D as all of CSIRO (Coopers & Lybrand 1997).

The *High Road or the Low Road* study underlined the value of co-operation and linkages within the economy in order to develop strong production chains and complexes. The report recognised that foreign MNCs may dominate local industry, especially in high-knowledge industries, and called for inward investment programs to ensure foreign MNCs are anchored within the Australian economy by using research, development, innovation and sourcing strategies which link them closely to the domestic industrial base. The companion ABF-sponsored study, *Winning Companies and Jobs* (Allen Consulting Group 1997), highlighted the critical role played by strategic alliances with foreign MNCs in knowledge, marketing and production for firms in knowledge intensive industries. The ABF's more recent study on the Australian wine industry also demonstrated the importance of alliances and linkages for the growth and market development of industry sectors.

The Role of Knowledge Networks

These earlier reports, as a group, also recognise that knowledge and networks are now the most important driving force of economic growth, as economic activity shifts from manufacturing-based systems to those where innovation and knowledge are more important. These changes are due to an increase in the knowledge intensity of key economic sectors and as well as globalisation. There is also substantial national and regional restructuring occurring as economic activity becomes more flexible with greater use of external networks including supplier-customer interactions. These changes may also make spatial clustering more important. The ability to respond quickly to external changes is also becoming increasingly important for competitiveness.

The knowledge economy has brought with it new industry structures, greater flexibility, global scale competition and production, an increased importance of clustering at regional levels and complex chains of creation, production and distribution. Australia must understand the impact of these processes in its own economy, in light of the significant role played by foreign MNCs here.

2.3 Why Foreign MNCs Are Important to Australia

General Context

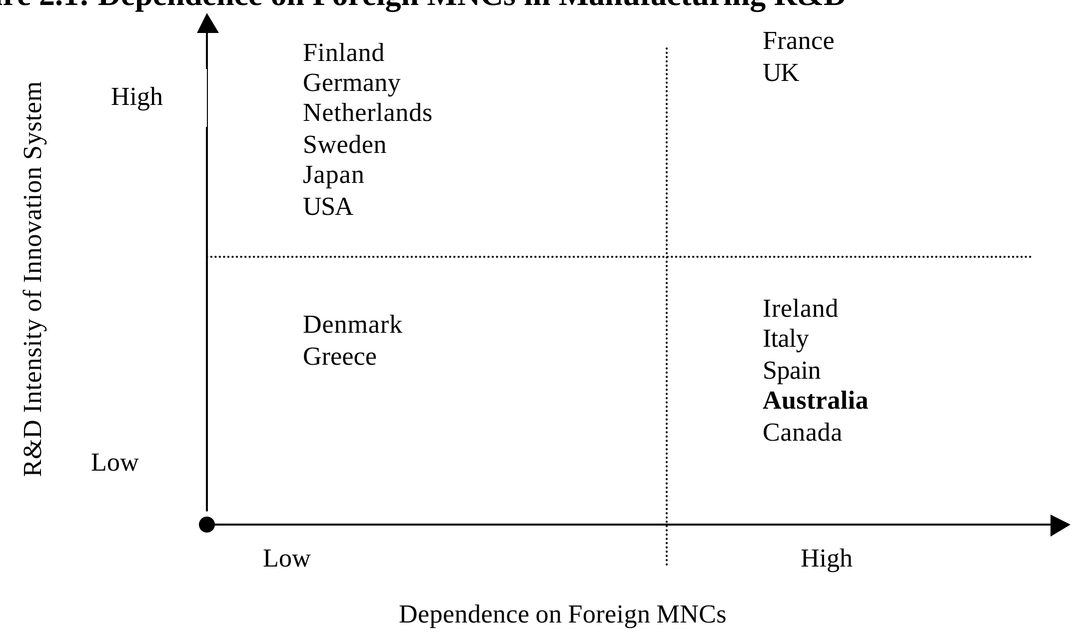
Historically, Australia has been one of the most dependent of OECD countries on the operations of firms headquartered overseas. The decisions these firms make about their operations in Australia are likely to be influenced by political, economic and social environments outside our country. It is important for Australia to know more about how these firms operate so that government policies and business strategies can maximise the positive aspects and minimise negative aspects of their operations.

MNCs are a global phenomenon. In 1998 there were 60,000 parent firms and 800,000 foreign subsidiaries world-wide (UNCTAD 2001). Australia has about 2,500 foreign affiliates, which in 2000 accounted for 17.9% of industry revenue (UNCTAD 2001, Ruthven 2000).[2] The largest 500 foreign MNCs in Australia represent 90% of that share, or 16% of the total (Ruthven 2000). Foreign MNCs can therefore play a dominant role in many sectors where most indigenous firms are small to medium enterprises whose main relationship with the MNC is likely to be that of supplier.

Foreign MNCs have a particular impact on manufacturing in Australia and are responsible for almost 30% of manufacturing turnover (Vickery 1996).[3] This is similar to MNCs in Belgium, Canada, Ireland, Austria, France, Portugal and the UK.[4]

Australia is also heavily dependent on R&D by foreign MNCs. This is partly due to the relative size of our national innovation system, which is small and relies on public sector R&D (Figure 2.1). Foreign MNCs play a particularly significant role in high-R&D intensive sectors such as pharmaceuticals, IT, telecommunications and aerospace.[5] In the mid-1990s, 8.9% of all firms in these sectors in Australia were foreign owned, but they accounted for 56% of industry sales and, on average, had turnovers ten times greater than Australian firms. If Australia is seeking to increase its R&D intensity at the business level, then foreign MNCs are a clear target for investment attraction policies and partnerships with local enterprises.

Figure 2.1: Dependence on Foreign MNCs in Manufacturing R&D



Source: Van Tulder et al (2000)

[2] They contribute from 3% of production in Japan to over 50% in Canada
[3] Source: Vickery, G. (1996) 'The Globalisation of Investment and Trade,' in eds. De la Mothe, J. and Paquet, G. Evolutionary Economics and the New International Political Economy, Pinter: London p102.
[4] In the USA, Denmark, Germany, Italy, Norway, Sweden, MNCs contribute under 20% of manufacturing turnover.
[5] Deemed for our purposes to be equivalent to those that produce ETMs

Past Australian Studies

Given the major role that foreign MNCs play in Australia, it is perhaps surprising that relatively little is known about the impact of their operations here. There has been relatively little Australian analysis since the early 1990s. In 1993, the Bureau of Industry Economics (BIE 1993) examined the implications for Australia of issues which led firms to choose one overseas location against another. This was followed by a report on Regional Headquarters (RHQs) in 1994 (Allen Consulting Group 1994). This was probably the precursor to the Government's focus on RHQs as a centrepiece of its inward investment strategy.

In the mid-1990s, the OECD conducted a number of studies which explored the wide implications of foreign multinationals in their host economies, but unfortunately data from Australia was not included in these. The OECD has also brokered development of Guidelines for Multinational Enterprises which encourage the positive contributions that multinational enterprises can make to economic, environmental and social progress and aim to minimise difficulties to which their various operations may give rise (OECD 2000).

More recently there have been some studies of tourism and rural sectors (Fisher et al. 1998; Michael 2000) but no analysis of foreign MNCs impacts across the economy. In addition, although government policy strongly supports inward investment, the tools used to measure its effects are largely limited to estimates of potential additional employment and total dollars invested. There appears to be no wider understanding of the more subtle ways that interactions between Australian firms and MNCs can influence Australia's growth and global relationships. It is this lack of objective information that led us to propose this study.

This report, then, provides a contemporary overview of the diverse linkages of foreign MNCs in Australia and considers the degree to which they influence, either positively or negatively, the growth, capacity and skills of Australian firms. It also goes beyond measuring linkages from foreign MNCs to the economy by examining ways in which the organisations on the other side of the equation, particularly Australian firms, might leverage these linkages to increase the benefits of these interactions.

2.4 Methodology

The study was conducted during the first half of 2001. It was guided by a Steering Committee drawn from the Australian Business Foundation's members and stakeholders and was chaired by the Foundation's Chief Executive. The Steering Committee provided input on the study's focus and commented on draft interview guides, surveys and the report as it developed. The study had four major phases, as follows:

Phase One: Literature Review

We first reviewed academic literature and other consultancy reports on the operation and integration of foreign MNCs in their host economies. For this it was necessary to review literature from a range of sources and this was subsequently used to build a model of the different types of linkages that foreign MNCs form in their host economies. This is further explained in Chapter 3. The literature review has also dictated the structure adopted for Chapter 3 and this same structure is used in Chapter 4, which sets out the background knowledge available on different aspects of MNCs in

Australia at the start of the study, and discusses how these issues have been debated in the community.

Phase Two: MNC Interviews

In consultation with the Steering Committee, we selected large foreign MNCs for interview, drawing the firms from the Business Review Weekly (BRW) Top 500 Foreign Firms list (October 2000). We selected firms with a range of experiences and activities in Australia, particularly firms which exported or undertook R&D. However, we sought firms in sectors across the economy, and with a range of activities, from sales and marketing, to manufacturing and services. The diverse activities enabled us to address characteristics of supply chains and external relationships in these industry sectors.

Although the final sample size was only 30 MNCs, we believe this was sufficient to enable us to explore the richness and diversity of MNC operations in Australia, and was large enough to enable us to analyse subgroups without breaching confidentiality provisions of the interviews themselves. This approach also enabled us to address major categories of relationships across the interview sample, and to examine important trends in engagement between Australian firms and foreign MNCs.

The draft interview guide was reviewed by the Steering Committee prior to piloting with three firms. The final interview guide (Appendix A) was used to interview 30 foreign MNCs about the key issues identified from the literature analysis. The interview guide was intentionally broad and not all issues covered in it were relevant to every firm interviewed. Hence, in the analysis in Chapter 5, some individual items have smaller sample sizes.

Most interviews were conducted face-to-face with senior staff although some were completed by phone due to distance and time constraints (Table 2.1). In total, 65 firms were approached for interview, giving us a success rate of 46%. We conducted four interviews in resources, 12 in manufacturing and the balance in services, reflecting the approximate relative contribution of these sectors to the Australian economy (Table 2.1). The majority of respondents were in Sydney and Melbourne, as this is where the headquarters of foreign MNCs are concentrated.

The 30 respondents employed over 5.1 million people world-wide, an average of over 174,000 per firm. Australian employment totalled 105,844, an average of 3,528 per firm. Australia represents, however, a relatively small component of most respondents' global operations, with only 2.1% of global employment. This is roughly equivalent to Australia's GDP as a percent of global activity.

The respondents also make diverse contributions to the Australian economy. The nature of these contributions depend on factors such as the industry in which they operate and the relative size and importance of the MNC's Australian subsidiary. While many are sales and marketing operations, others manufacture, export, function as Regional Headquarters (RHQs), are regional or global service centres or trial e-commerce. The main manufacture or service activities were used to classify subgroups of MNCs (Table 2.2). Other activities are examined in the context of in-country linkages.

Table 2.1: MNC Interview Subjects and Location

Sector	Names	Headquarters
Resources	Esso Australia Pty Ltd	Melbourne
	Billiton Exploration Australia Pty Ltd	Melbourne
	Monsanto Australia Ltd	Melbourne
	Sun Metals Corporation Pty Ltd	Townsville
Manufacturing	Alcatel Australia Pty Ltd	Sydney
	Boeing Australia Ltd	Brisbane
	Fujitsu Australia Pty Ltd	Sydney
	Holden Ltd	Melbourne
	Kimberly Clark Australia Pty Ltd	Sydney
	Krone Australia Holdings Pty Ltd	Wyong
	Johnson & Johnson	Sydney
Consumer Products	Nestle Australia Ltd	Sydney
	Novartis Australia Pty Ltd	Sydney
	Parmalat Finanziaria SpA (Pauls Limited)	Brisbane
	Siemens Ltd	Melbourne
	Unilever Australasia Ltd	Sydney
Other Services	AOL Australia Online Services	Sydney
	Barclay Mowlem	Sydney
	Ericsson Australia Pty Ltd	Melbourne
	Federal Express Corporation	Sydney
	Manpower Services Australia Pty Ltd	Sydney
	McConnell Dowell Corporation Ltd	Melbourne
	McDonald's Australia Pty Ltd	Sydney
	NRG Asia-Pacific Ltd	Brisbane
	Promega Inc	Sydney
	Time Warner Entertainment Australia Pty Ltd	Sydney
	TXU Electricity Ltd	Melbourne
Banking & Finance	BT Funds Management	Sydney
	Citibank Ltd	Sydney
	Deutsche Bank AG	Sydney

Table 2.2: Activities of Respondents

MNC Classification	Companies
Manufacturing: consumer products	Kimberly Clark, McDonald's, Nestlé, Unilever
Manufacturing: other	Holden, Novartis Animal Health, Paul's
Resources	Monsanto, Esso Mobil, Billiton Exploration, Sun Metals
Services: banking and finance	BT, Citibank, Deutsche Bank
Services: other	AOL, Barclay Mowlem, Federal Express, McConnell Dowell, Manpower, NRG Asia Pacific, Time Warner, TXU Electricity
Technology-based	Alcatel, Boeing, Ericsson, Krone, Fujitsu, Siemens, Promega, Johnson & Johnson

Source: MNC interviews

The oldest MNC respondent had entered Australia in the late-1800s. The most recent entrant had been here less than a decade. Market access was the dominant reason for moving into Australia. For further details on this issue see Appendix D.

Phase Three: Supplier Questionnaire and Case Studies

In order to obtain a perspective from Australian suppliers to foreign MNCs, we developed a short written questionnaire which, after piloting, was distributed by mail or e-mail during mid 2001. The supplier questionnaire (Appendix C) focused on comparative experiences in selling goods and services to Australian-owned firms and foreign MNCs in Australia and complemented the topics covered in the MNC interviews. In order to be a valid survey response, respondents had to answer questions on both MNC and Australian customers.

We sent the survey to 524 firms, concentrating on small to medium firms (SMEs) as these make up the bulk of Australian businesses. Of these 524, we identified 200 through industry directories or public information on suppliers to the targeted foreign MNCs.[6] These firms were known to supply to the MNCs interviewed or to firms like them. They were mailed the questionnaire and were followed up by phone. The response rate for this group was 21%.

The remaining 324 were members of Australian Business Ltd. These SME's were emailed the survey by ABL. These respondents had the option of replying by mail or on-line through Advance Consulting & Evaluation's website, where the questionnaire was also posted. This group was more diverse, and we were unable to follow up the firms individually as we did not have direct access to the mail list. As a result, the response rate was much lower, at 3.7%.

All told we received 59 replies, a success rate of 10.6%, of which 56 were usable (Appendix B). Supplier respondents are skewed towards NSW-based suppliers due to the selection methods used, but this has little bearing on the analysis as we were focusing on location-independent variables in all but one part of the study. The supplier respondents are small firms, mainly in knowledge services or manufacturing.

[6] For example, the Federation of Australian Automotive Product Manufacturers directory, Industrysearch website, case studies of SMEs on government websites, MNC websites where these identified suppliers or recipients of supplier awards.

These are the same classes from which the MNC respondents draw their major external inputs. About 40% are in Sydney with the rest distributed around Australia.

Supplier respondents were atypical of the average Australian firm in that 74% of them report undertaking research and development (R&D). This, however, is an advantage in that it enabled us to explore with more certainty the R&D relationships between these suppliers and their MNC customers. The majority of supplier respondents (64%) sold their products and services as finished items, while 18% sold intermediate products that were incorporated into final products by their customers. Nine percent sold products to distributors and the remainder sold raw materials.

Suppliers were also asked to indicate whether they were willing to contribute case studies to the final report. Those that agreed were followed up separately by phone. Ten case studies were completed and have been included in Chapter 5 to illustrate themes. All case studies have been cleared by the companies involved.

Phase Four: Analysis

The findings from this study have been summarised in Chapter 5 and the results of quantitative questions to both MNCs and suppliers are included at Appendix D and Appendix E respectively. The implications of these findings for Australian public policy and for suppliers to foreign-owned firms are discussed in Chapter 6.

2.5 Limitations and Strengths of Study

The report is a first step in understanding the wider range of intangible factors that influence the operation of foreign MNCs in Australia. It purposely takes a broad view, as outlined above. However, the study does have some limitations, which are important to recognise.

Firstly, we have surveyed only the Australian-based staff of foreign MNCs. We have not interviewed staff at the MNC headquarters, wherever these may be located. Hence, the findings laid out in Chapter 5 present only an Australia-centric view of MNC activities and the role of the Australian subsidiary in the global network. The findings have not enabled us to address the assertion that Australia “has dropped off the radar screen” for many foreign MNCs in high growth manufacturing and service industries. While this external view is important, it is beyond the scope of this study. Even so, the study does provide valuable evidence of the strategies adopted by MNC subsidiaries in Australia and will help Australian organisations to understand their perspective.

Secondly, the moderate sample size and broad range of MNC activities has limited the extent of sectoral analysis and hence the conclusions we can draw about particular industries. However, we have been able to measure the extent of the existing linkages of foreign MNCs within the Australian economy and have used this evidence to draw conclusions about broad trends that are shaping these linkages. The approach has also allowed us to examine how Australian firms can make the most of these linkages and how Australia might reap maximum benefit from foreign MNC activities in Australia. We believe we have sufficient information in order for these conclusions to be valid. The sample size of 30 in itself does not present a problem: other similar studies have used sample sizes of 30 or smaller.

A third limitation of the study is that while it goes to some lengths to explore supplier interactions, it does not fully explore the actions of foreign MNCs from the view of their customers and competitors. It is known from other studies that the impacts on customers are limited and competitors have also identified relatively few adverse effects (PA Cambridge Economic Consultants 1995). We therefore decided to concentrate on suppliers as these had potentially the most to gain from their relationships to MNCs. We also reasoned that, as far as Australia was concerned, the customers of foreign MNCs were likely to be other large firms and MNCs, and this has turned out to be correct. These are likely to have developed sound strategies to manage their external relationships and hence our focus was on smaller suppliers who could benefit from the findings of this study.

3 Approaches to Measuring Host Economy Integration

3.1 Introduction

Our understanding of host economy linkages by MNCs has been confined until now to measurement of easily accessible data, mainly local employment, dollars invested and R&D. MNC linkages also extend, however, to other parts of the value chain and form part of intangible knowledge flows, including transfer of knowledge through training and education, access to tacit knowledge within personal networks, or the know-how transferred with formal technology transfer. No single measure encapsulates the diversity of linkages that a foreign MNC may have in the host economy and different measures may be more relevant for some firms than for others. For example, high technology and business services firms are increasingly linked on a global and national scale via intangible knowledge-based linkages (Andersen and Birgitte 2000).

While the importance of knowledge networks and electronic commerce is growing rapidly, it is important not to lose sight of traditional linkages, such as those existing in supply chains. We argue that it is not simply a matter "new" economy versus "old" economy industries or linkages; many varied linkages bind foreign MNCs into the global and Australian economies. This study therefore develops a more encompassing model of measurement, which is then applied to Australia. The key dimensions examined were based on international literature and other major studies, particularly recent studies in the UK (PA Cambridge Economic Consultants 1995) and a 1993 analysis by the Australian Bureau of Industry Economics (BIE 1993). The key dimensions are:

- Value chain: suppliers, customers and R&D.
- Clustering and local integration.
- Strategic alliances, joint ventures, mergers and acquisitions.
- Knowledge networks and global knowledge management.
- Decision-making and reporting within MNCs.
- E-commerce.

Each section provides an overview of the current state of world knowledge and concludes with a set of "key questions". These questions then form the basis of the MNC interview guide (Appendix A) and the analysis in later Chapters.

The analysis will then enable us to provide an opinion on whether, as has been found in other countries, the operation of foreign MNCs in their host economies is largely positive. The main positive effect is due to foreign-sourced direct inward investment (FDI),[7] which provides resources for economic growth through employment and use of local suppliers. Depending on the sector and the mandate from the parent company, foreign subsidiaries may also contribute technology and training and may provide access to global knowledge networks. Nevertheless, in most measures there is potential for positive and negative impact (Table 3.1).

[7] Defined as capital invested for the purpose of acquiring a lasting interest in enterprise and of exerting a degree of influence on that enterprise's operations OECD (1998). Survey of OECD Work on International Investment. Paris, OECD: 1-33.

Table 3.1: Possible Contributions of Inward FDI to Competitive Advantages of Host Countries

Issue	**Positive Impact**	**Negative Impact**	**Host Country Characteristics that Favour Positive Contributions**
Resources	Provide additional capital, management, market access	Too few or wrong kind of resources; block foreign market access	Local resources at low real cost and limited structural impediments to upgrading of indigenous assets
Entrepreneurship	New management styles and dynamic work cultures and practices	Clash with local culture or industrial relations styles, too much market concentration inhibits new entrants	Promotion of local entrepreneurship, customer-driven work ethic, efficient capital markets
Efficiency	Competitive stimulus on suppliers/customers, upgrading of domestic capabilities	Limit domestic resource upgrading if production is low-value-added or if links are confined to foreign suppliers/customers	Provision of legal, commercial policies that help upgrade capabilities and encouragement of regional clusters
Tax revenue	Add to GDP and tax to government	By restricting growth of GDP	Tax policies to minimise transfer pricing abuse
Balance of Payments	Import substitution, export generation	Worse balance of payments through limiting exports, promoting imports and competing against indigenous firms	Long term view of contribution of FDI to economic growth
International economic integration	Linking host economy with global marketplace and fostering efficient division of labour	As for balance of payments	As above plus encouragement for foreign firms to upgrade value-added activities and boost indigenous resources
Political, social and cultural	Attitudes to work, exposure to demanding customers overseas	Causing political or social divisiveness and introducing unacceptable business, cultural or environmental values	Strength and stability of society, acceptance of change, alignment with cultural norms of investing firms

Source: UNCTAD (1999)

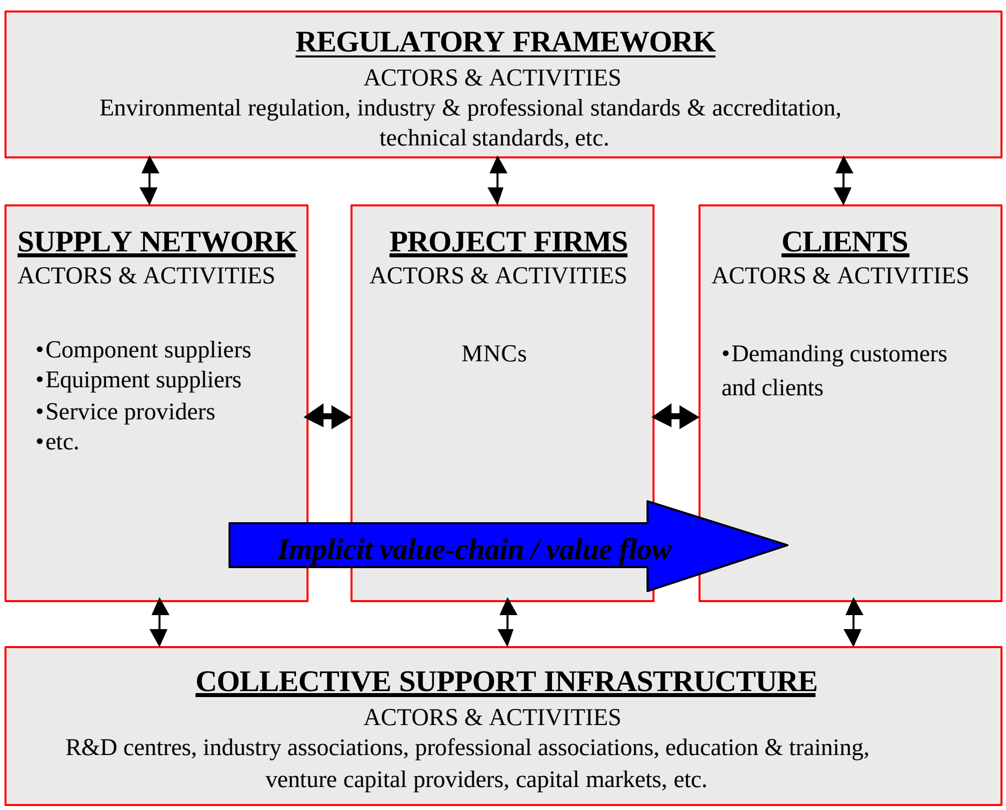
The local integration, or embeddedness, of a foreign firm into the Australian economy must also be set in the context of the parent firm's global strategy as well as the forces which shape growth in particular industries, such as technological change, the competitive environment and deregulation. In the past, firms expanded overseas when it became more economic to establish a facility in a particular market rather than export from home base. Decisions on timing were influenced by host economy policies, especially tariffs.

Given the globalisation of markets, firms must look overseas early in their lives in order to ensure that their products are attractive to a large enough market. This means that when firms are looking into new locations, market size is a prime consideration, followed by access to nearby markets (PA Cambridge Economic Consultants 1995). Thus, it is to be expected links between foreign MNCs linked to the Australian economy will be influenced by their perceptions of Australia as a growth market, as a base from which they can target other markets (e.g. Asia), or as a source of comparative advantage in technology or labour.

3.2 Value Chain

The "business systems" literature concentrates on the relationship between firms and the outside environment and focuses on the production value chain. The business literature takes the production value chain to be the linkages between the firm and its suppliers and customers, focussing on those inputs required for production (Figure 3.1).

Figure 3.1: A Schematic Product System



Value chain linkages can be measured in a number of ways. Common metrics include measures of technology transfer (e.g. licensing of patents), value and scope of outsourced collaborative or contract R&D, measures of diffusion of skills (e.g. amount and scope of technical and management training), value of local manufacture and sourcing of local service inputs.

In this study we have taken a broader approach and wish to tease out the role of intangible inputs including inflows of tacit and codified knowledge and services. In addition, we recognise that the nature of supply linkages will depend on the type of industry in which the foreign subsidiary is operating. For example, foreign MNCs in manufacturing may have strong linkages with component suppliers and with a range of input services such as banking, R&D, construction, and IT services. In contrast, the supply linkages in many service industries may be more limited and less tangible, but will include product inputs such as computer systems and telecommunications equipment, as well as a range of business services.

Supplier Linkages

Suppliers may provide either raw materials (e.g. grain), intermediate inputs which are then embedded in final products (e.g. printed circuit board), or finished products (e.g. cars) which are then bought by distributors or consumers. International sourcing of these inputs contributes significantly to globalisation but there has been little analysis of trends because of difficulties in obtaining reliable data.

In 1993, an OECD study of trends in foreign and domestic sourcing in manufacturing in Canada, France, Germany, Japan, the UK and the USA found that foreign sourcing had grown in each country between the early 1970s and mid 1980s (Wyckoff 1993). The trend was particularly strong in automotive, aerospace, computing and scientific instruments and was lowest in textiles, non-ferrous metals and machinery. The study also discussed the implications of the development of international sourcing networks, and suggested that tariffs may hurt, rather than support domestic industries because of new and complex networks of foreign suppliers. The OECD study also found that domestic inputs were still significant, particularly in the US and Japan where they accounted for 90% of inputs. Even in Canada, which had the highest level of imported inputs, domestic inputs still outweighed those sourced from overseas by a ratio of 2:1. It follows that, although firms may source intermediate products from overseas, domestic suppliers still play a dominant role. The impact of foreign MNCs on domestic suppliers may be therefore significant.

MNCs are demanding customers and may stimulate greater competitiveness and specialisation in suppliers. This has been discussed extensively by Porter (Porter 1995), whose "diamonds" of industry/firm competitiveness have been used by many governments wishing to measure and improve local production and economic growth. A recent UK study of supplier impacts found that foreign MNCs had strong and widespread impacts on quality assurance systems, product development activities, production organisation and cost control (PA Cambridge Economic Consultants 1995). Another study of foreign financial service subsidiaries in Hong Kong found that they had created improvements in the quality and degree of specialisation of local and foreign supplier firms, thus benefiting all customers (Enright 2000). Some MNCs have significant supplier development programs in their host economies and actively seek out new local suppliers, develop training programs and transfer technology (UNCTAD 2001).

MNCs may also generate rationalisation within supplier industries. For example, Boeing is actively pushing its 30,000 suppliers into alliances to reduce costs and limit its handling of multiple parts. Rationalisation of suppliers, in particular, may be associated with the shift to e-commerce and is an important issue for Australian firms.

Another major advantage of MNCs is the access they can provide to global distribution networks. For example, global investment banks were given a significant part of the Telstra I and II float to distribute in Europe and the US. This issue has been shown to be important in other countries. In Hong Kong, involvement of foreign subsidiaries of multinational firms has allowed local companies to raise capital more efficiently on global markets (Enright 2000).

Finally, MNCs may integrate suppliers into their production processes. Complex products also require a high degree of direct user involvement. Technical progress in these firms requires particular forms of management and input from specialised goods and service suppliers (Hobday 2000). Suppliers often need a deep understanding of the inner functioning of the components they are supplying, while the procuring party needs to co-ordinate inputs and to adapt to technological change and the impact this may have on the final product (Prencipe 2000). MNCs that develop complex products may therefore provide opportunities for their suppliers to work closely with them.

Key Questions:

- To what extent do foreign MNCs in Australia draw on Australian-based suppliers?
- Do Australian suppliers have different relationships with foreign-MNCs than Australian-owned firms?
- Do foreign MNCs work with their suppliers to improve product or service standards?
- What is the impact of e-commerce on these relationships?
- Do foreign MNCs provide their Australian suppliers with access to global distribution networks?

R&D Inputs

Other linkages of importance are R&D inputs. MNCs now control a large proportion of the world's scientific and technical resources (Granstrand et al. 1993). While they are key players in the spread of global knowledge, they also increasingly access the knowledge resources in different countries, making them important players in both sectoral and national "systems of innovation" (Florida 1995; Edquist 1997).

There has been a general rise in the R&D intensity of foreign subsidiaries in manufacturing in the last 10 years (OECD 1998). The location of this R&D is influenced by the national technology strengths of the host economy (Frost and Zhou 2000; Kumar 2001). There is, however, a relationship between overseas-performed R&D and overseas-registered patents, particularly in engineering and machinery, pharmaceuticals, electrical equipment and coal/petroleum sectors (Cantwell and Santangelo 1999; Belderbos 2001). Mature and non-core technologies appear to be less location-dependent, whereas those that require a greater extent of tacit knowledge, and hence closer interaction, are more likely to be geographically concentrated.

National knowledge systems are of particular importance for MNCs with multi-centric models of internal management, which may facilitate the exchange of knowledge through strategic alliances or joint ventures (Howells and Roberts 2000). These MNCs outsource some R&D to local suppliers and thus embed themselves in particular countries. They then transfer the knowledge back from their host country to the parent. For example, 70% of all international royalties on technology involve payments between parent firms and their foreign subsidiaries (The Economist 2000).

Some governments with low levels of domestic business R&D and high reliance on foreign MNCs have implemented policies to encourage foreign subsidiaries to undertake R&D. Singapore is promoting information-intensive industries and supporting technological and human resource infrastructure. It has structured its tax and other incentives to attract information-intensive MNCs.[8] Ireland,[9] has also recognised that its innovation system is too weak to naturally encourage fundamental R&D by its foreign MNCs and a recent report has recommended adoption of the following policies by the Irish Government (Forfas, 2000):

- Improve local R&D skills and expertise by providing more trained and skilled labour.
- Use grants to encourage business enterprise R&D.
- Develop R&D tax breaks for MNCs.
- Encourage more local high tech startups.
- Encourage universities to work more closely with industry.
- Identify centres of research excellence.
- Focus science and technology policy on clear priority areas.

These governments have developed targeted policies because countries that are not perceived to be important repositories of knowledge will be bypassed by MNCs in technologically sophisticated industries. While the term “knowledge nation” has been overused in the popular press, there is little doubt as to the underlying importance of the emerging global knowledge economy.

Key Questions:

- How can Australia be positioned as a key global knowledge economy?
- Do foreign MNCs perform R&D in Australia?
- Is this R&D basic, applied or simply local product modification?
- Do they source R&D from local institutions?
- Who benefits from this R&D?

Customers

By purchasing from foreign MNCs, rather than locally owned firms, local business customers may improve their understanding of the global operating environment and thus increase their competitive advantage. Some of these effects have been demonstrated in the UK, where MNCs felt that they had increased their customers’ sales and profitability through informal liaison, lower pricing and provision of assistance on technical issues (PA Cambridge Economic Consultants 1995). These

[8] (http://www.sedb.com.sg/index1.html).

[9] Refer to Figure 2.1 showing similarities between Australia’s and Ireland’s dependence on foreign MNCs and similar national systems of innovation

impacts, however, were lower than the equivalent impacts on suppliers. They are likely to be increasingly important in industries characterised by rapid change.

Knowledge-intensive business services have been identified as sources of new knowledge and innovation and facilitators of the international transfer of knowledge to their national customers (Howells and Roberts 2000). Thus globalisation of accountancy, management consulting and banking and finance has had significant implications for the spread of new business practices and are one of the major mechanisms for inter- and intra-industry spillovers.

Key Questions:

- Do foreign MNCs work with Australian customers to improve product or service standards or to understand and manage the market?
- Do Australian customers have access to global knowledge networks of foreign MNCs?

3.3 Clustering and Local Integration

Localisation vs. Urbanisation

The theory of agglomeration economies proposes that once firms are co-located, they gain advantages from their physical proximity. They have lower transaction costs and increased benefits from local informal interaction. Early stage innovation in technology-based and complex product industries frequently requires firms to be close to each other and this stage requires frequent face-to-face contact (Simmie and Sennett 1999). Hence, there is great interest in clustering needs and effects in emerging industries such as IT&T and biotechnology.

Foreign MNCs are attracted to locate in regions and cities that have good infrastructure, skilled and productive labour, innovative capacities and an agglomeration of efficient suppliers, competitors, support institutions and services (PA Cambridge Economic Consultants 1995; UNCTAD 1999). Regional financial incentives can also play a role.

Once firms are established in a location their concentration may lead to a “virtuous circle”. Other firms will be attracted to cities and regions that already have sufficient facilities and their presence reinforces the concentrations of activity in these locations. The challenge for smaller industrialised countries such as Australia is to build-up world-class facilities and resources in industrial districts to attract and keep firms that benefit the economy. Furthermore, such industrial districts are knowledge-intensive.

The agglomeration economy or clustering literature focuses on two types of economies. *Localisation economies* are economies that are external to the firm, but internal to the industry or sector. Examples of localisation factors include a specialised labour force, specialised suppliers and research groups with skills particular to the local industry. New entrants to regions benefit from an increase in the quality and specialisation of the labour force and availability of specialised machinery with local repairers. In contrast, *urbanisation economies* are external economies available to all firms regardless of sector. They are, however, internal to the city or region. Examples of urbanisation factors include roads, railways, ports and airports, local characteristics that would be described a “quality of life” issues, and education or health services. All firms which move into the region can benefit equally from access to urbanisation factors and they do not favour development of any particular industry.

Simmie and Sennett (1999) surveyed high technology firms in the northern part of London and found that these firms make use of urbanisation economies (the general advantages of being located in a major city) rather than locating near to suppliers or customers as would be predicted from the localisation argument. These innovative firms were influenced by the availability of premises, professional labour, and regional transportation systems (urbanisation effects) rather than specific locational advantages. Thus innovative firms in major cities such as London are gathered together not so much because they need or use strong intra-industry networks or linkages, but rather because they make use of the multiple 'pick and mix' possibilities provided by the urbanisation effects of large urban agglomerations.

A separate study of MNCs in the UK supports this view. It found that the most important factors in choosing a location within the UK were availability of suitable sites/premises, presence of a pre-existing company (that could be purchased to speed market entry), quantity and quality of labour skills, cost of labour, regional incentives and availability of utilities (PA Cambridge Economic Consultants 1995).

These studies show that proximity to suppliers and customers and the formation of regional clusters based on localisation factors may not be a major issue for these firms. Indeed, the UK study quoted earlier found that less than 15% input materials and components were sourced locally by the MNCs surveyed, although the proportion of services purchased locally was higher, at 48%. If replicated elsewhere, this has significant policy implications, since governments could best facilitate the growth of clusters by improving local and international transportation facilities, providing suitable land for offices and by enhancing the availability of skilled labour in the metropolitan area.

Key Questions:

- What prompts foreign MNCs to move into Australia?
- What prompts their choice of home city?
- How can Australia promote the growth of knowledge-intensive industrial districts which will attract R&D facilities of MNCs?
- Do government incentives or policies influence these choices?
- Do foreign MNCs favour suppliers from within their local district?

Training and Labour Markets

Foreign MNCs can have significant impacts on local labour markets by both direct employment and indirectly through suppliers. In general, foreign firms also pay higher wages than domestic firms (The Economist 2000) and may be attractive employers.

The training of skilled employees in foreign MNCs is also important, given that these people are likely to move to other employers in the same city later in their career (Fosfuri, et al. 2001). In technology-based industries, workers might require substantial training by a foreign MNC in order for them to meet the needs of the company. MNCs may engage local training institutions, particularly at the trade and

TAFE level, to meet specific training needs (PA Cambridge Economic Consultants 1995). The transfer can work both ways, with foreign MNCs gaining skills from local staff with specific knowledge and expertise. There are examples of high-technology firms from Japan and Europe embedding themselves in Silicon Valley and other clusters, and then transferring this knowledge to their global operations (Cohendet 1999).

MNCs may also transfer "strategic organisational practices" to local staff. These are particular ways of running an organisation that relate to an organisation's history, people, interests and actions that have become institutionalised in either a formal or tacit way (Kostova 1999). Organisational culture can affect the success of acceptance and transfer of organisational practice. Although Kostova discusses this subject in the context of organisational practice among MNCs and their subsidiaries, the issue applies equally to transfer of management skills between firms, particularly to suppliers. In the UK, for example, suppliers have reported impacts of MNCs on training activities and skill levels, technology and innovation, financial procedures and management practices (PA Cambridge Economic Consultants 1995). Customers, on the other hand, reported few similar impacts.

Key Questions:

What is the employment impact of foreign MNCs?

How does this vary with type of firm?

What training do foreign MNCs provide to management and technical staff?

What is the typical career path of management staff within the MNC?

How do the management structures within the MNC influence these issues?

3.4 Strategic Alliances, Joint Ventures, Mergers and Acquisitions

MNCs are operating in more flexible ways at a global and national scale (Birkinshaw and Hagström, 2000). Such flexibility may take a wide range of forms, but an important component is that MNCs have formed a wide range of alliances and joint ventures in their global operations. Such inter-corporate ventures may be quite transitory, but are common in particular areas of the economy. The issue of the flexible firm is of significance in examining national linkages, since the more links between foreign MNCs and national firms, the higher the level of their integration into the host economy.

Strategic Alliances and Joint Ventures

Strategic alliances are growing in importance and are a significant mechanism for learning by firms. Strategic alliances are defined as arrangements where at least two firms agree to collaborate in line with each partner's corporate objectives, but without the creation of a third entity (Office of Technology Assessment 1993). Joint ventures, on the other hand, is a more loosely defined term but often refers to creation of a third party firm or other legal entity. Firms may also draw closer together by formal merger or acquisition.

MNCs may have a variety of global, regional and national strategic alliances. In the USA, for example, 575 new research joint ventures were signed between 1985 and 1995, with 10 companies involved in 50 of these alliances (UNCTAD 1999). A review of strategic alliances by the OECD also identified strong relationships between the level of overseas production and the numbers of strategic alliances (Kang and Sakai 2000). Indigenous firms may benefit from alliances or joint venture with MNCs if they can then access new technology or larger markets. However, they may also be prevented from participating in global alliances due to their limited size or resources, and may therefore be denied access to the benefits such alliances bring.

Alliances and joint ventures may also be encouraged by national governments which seek technology and other skills transfer between global corporations and local firms. For example, many Asian governments require incoming firms to establish joint ventures with local companies in order to sell into the local market. Indeed, Australia used to encourage similar arrangements through placing high tariffs on imported goods.

Mergers and Acquisitions

Mergers are the creation of one firm where formerly there were two, while acquisitions are the purchase by one firm of the shares and assets of another, usually smaller, entity. M&As require flow of investment capital and if the investment flow is across borders then FDI can be used to measure the role of foreign MNCs in merger and acquisition activity.

Firms which enter a new market using a merger or acquisition use different criteria when choosing a site within a country and place less emphasis on supplier development strategies than firms which are making greenfield investments (PA Cambridge Economic Consultants 1995). M&As are growing rapidly and are the dominant mode of cross-border market entry in developed markets and appear to account for at least 60% of the total value of global investments (Table 3.2) (Thomsen 1999; UNCTAD 1999). There are also strong inter-sectoral differences in the average value of M&As, with the largest by number being in business services, chemicals, banking and finance and electrical engineering (OECD 2001).

M&A's are also leading to increased geographic concentration in industry, making it more difficult for smaller countries to access world knowledge and skills (Van Tulder, Van den Burghe et al. 2001).

Table 3.2: Cross border M&A Sales, 1995-2000 (US$ billions)

Region	**1995**	**2000**	**Compound Annual Growth Rate**
Developed countries	164.6	1057.2	45%
Developing countries	16.0	69.7	34%
Central & Eastern Europe	6.3	21.1	27%
World	186.6	1143.8	44%

Source: UNCTAD (2001)

Key Questions:

- Are there any differences between the performance of MNCs that have entered the Australian market by acquisition or greenfield investment?
- What alliances are formed and why?
- How important are global M&As in shaping the growth and role of their subsidiaries in Australia?

3.5 Knowledge Networks and Global Knowledge Management

The term 'Global Knowledge Economy' refers to the overall global economic structure that is emerging as a result of the interplay of knowledge intensity and globalisation (Houghton and Sheehan 2000). *Knowledge intensity* of economic action is being driven by the information technology (IT) revolution and the increasing pace of technological change. *Globalisation*, on the other hand, is being driven by national and international deregulation, as well as by IT and telecommunications advances. Globalisation, in the form that has been emerging since the 1980s, can be summarised in terms of impacts relating to the emergence of a global system, global competition and the location, organisation and rationalisation of economic activity:

- As economic activity becomes globalised, there is an increasing inter-dependence of international flows of goods and services (trade), foreign direct investment (FDI), technology and capital transfers.
- Competition is becoming increasingly global and the ability to compete head-to-head in all major markets is essential for success. No longer does industry face a domestic market protected from international competition.
- Scale is becoming increasingly important in order to permit firms to roll-out into all major global markets quickly.
- Whether niche or global brand, rapid expansion into major markets now requires outward investment as well as exports.
- Global production is bringing a new rationalisation of production, co-ordination, combination and accumulation of assets.
- The globalisation of production and sourcing is leading to increasing specialisation in the formation and operation of supply chains of production across international boundaries.

Global Knowledge Networks are Essential

The role of global knowledge networks is increasingly recognised as being central in the growth of companies in a globalised world. Global knowledge networks are important both inside and outside the firm.

Firms which operate within external networks can have advantages over their competitors who remain isolated. Several advantages have been identified, including lower cost, greater speed to market, improved technology access and increased flexibility (Pennings 1992). Network connections can also be less formal than vertical supplier or customer relationships, so firms can choose the most appropriate partner for each project.

The geographic scale of these external networks is important for firms wishing to operate in the global economy. It is no longer sufficient to have only domestic linkages. Thus, if indigenous firms can access the global networks of their multinational customers or alliance partners, then there is the possibility that they can gain benefit more than if they are only working with indigenous firms, particularly if the latter are not exporting.

Global Knowledge is Tacit or Informal

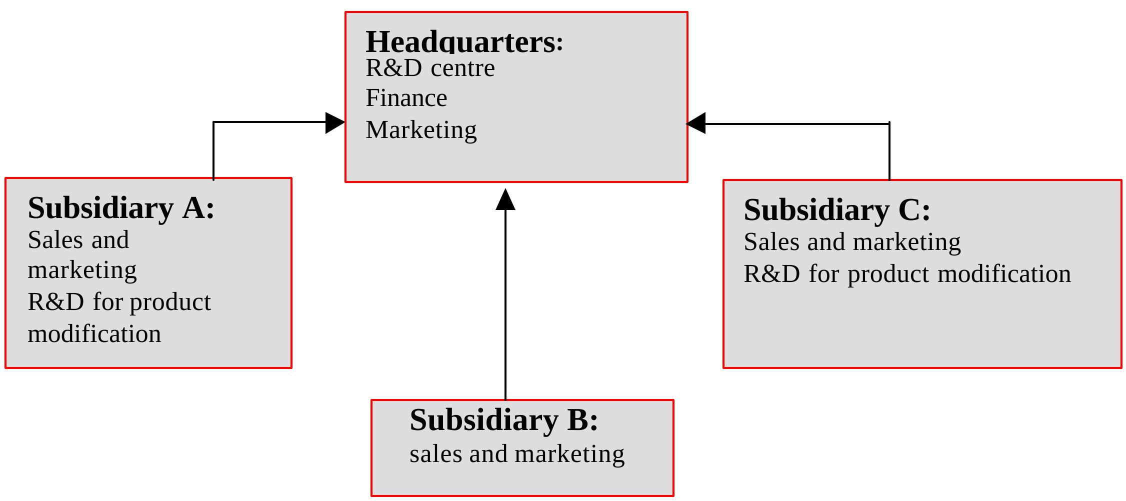
Another key question is the role of tacit knowledge and its "stickiness". Tacit knowledge is embodied in people and is quite difficult to transfer in a codified form so that firms can identify what they know and use it to their advantage. Much has been made of the sorts of tacit networks that operate in places like Silicon Valley. On the global scale, it is the personal networks with people around the globe, rather than in the local region, that become important.

Finally, these networks extend within firms that operate at multiple sites. Internal knowledge flows help to keep different parts of a decentralised structure abreast of new technologies, know-how and tacit knowledge needed for production. They are also important in developing and maintaining organisational culture and in decision-making processes that influence costs and profitability.

Internal MNC Structure Influences Host Country Knowledge Flows

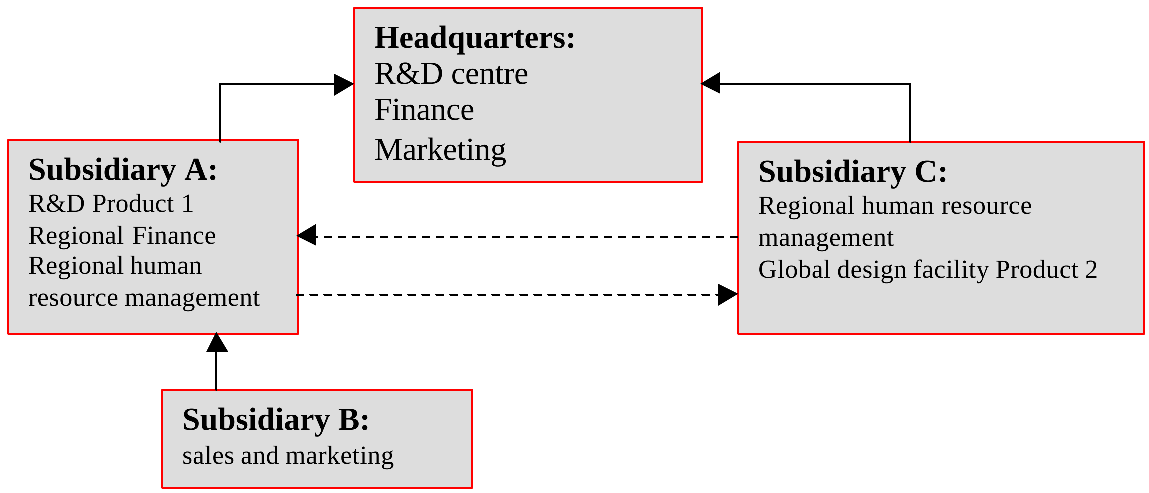
The internal administrative structures of MNCs may also influence the degree and type of linkages their subsidiaries form with host economies. The traditional pattern has been the *centre-periphery model*, where firm-specific advantages of the MNCs are developed and controlled by the parent company. The foreign subsidiaries' role is to exploit these advantages in national markets (Figure 3.2).

Figure 3.2: Internal Relationships in Centre-periphery Control Systems



There is a new perspective, however, that describes MNCs' shifts towards *multi-centric structures* in which various corporate strengths are located in different affiliates (Andersson and Forsgren 2000). These multi-centric patterns of operation are most obvious in R&D-intensive manufacturing industries (e.g. automotive) and customer-focussed service industries (e.g. travel), where the MNC may establish several global design or call centres which operate across a 24-hour day/seven-day week ("24/7") pattern. The activity moves from city to city over a 24-hour period, facilitated by developments in information technology and telecommunications (IT&T) so the process can be effectively managed despite large distances (Figure 3.3).

Figure 3.3: Internal Relationships in Multi-centric Control Systems



Multi-centric models of control provide opportunities for Australia, which has traditionally been hampered by distance from markets. These models also allow subsidiaries to argue for a stronger role and the resulting decentralisation of decision-making provides opportunities for local interactions by the MNC. They may also threaten existing investments. Either way, greater understanding of evolving practices is essential.

Key Questions:

- What is the structure of internal knowledge management networks within MNCs?
- To what extent do foreign MNCs in Australia perceive they have access to these networks?
- What formal and informal processes are in place to maintain these networks?

3.6 Decision-making and Reporting Within MNCs

The model of control elucidated above also creates challenges for the MNC, which has to manage transfer of tacit knowledge at a global scale (Cantwell and Santangelo 1999). The challenge for the foreign subsidiary is to access this knowledge within their firms. It may be difficult for the foreign subsidiary to know what knowledge actually exists in the global MNC. Without such knowledge, they are cut off from the decision-making process and cannot influence the decisions made by their parent organisation.

The strategies employed by different foreign subsidiaries within a firm to access key corporate knowledge may lead to internal competition. This then influences the linkages or integration of each foreign subsidiary into its host economy. The greater the corporate role of a subsidiary in a particular country, the more likely that firm will be strongly embedded in the economy. In contrast, subsidiaries that have a limited role in a country are likely to have a limited range of linkages with local suppliers and customers and will be primarily sales and marketing offices.

Reporting Structure Influences Subsidiaries' Independence

One of the main focuses of control within the MNC is the reporting structure from the subsidiary to the parent firm. This is not the same as company structure (Figures 3.2 and 3.3) but relates more to firm strategy within the host market and hence the competitive relationship with the parent. Birkinshaw (1995) describes a three-part typology which elucidates the strategy and types of subsidiaries (Birkinshaw and Morrison 1995):

- the ***Local Implementer*** which has a limited geographic scope and new product or value-added scope is normally constrained because the subsidiary's role is to adapt global products to the local needs;
- the ***Specialised Contributor*** which has expertise in certain specific functions or activities, which are coordinated with those of other subsidiaries so that it may have a narrow range of value-added activities; and
- ***World Mandate***, where the subsidiary has worldwide or regional responsibility for a product line or an entire business and may have much broader product or value-added scope.

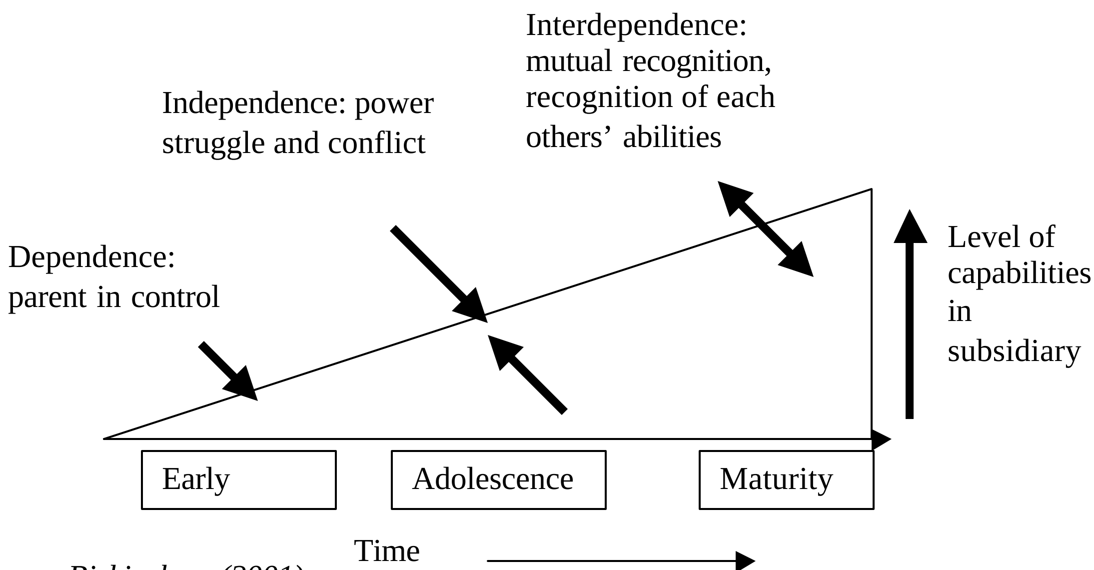
It is important because of the implications that both *Specialised Contributors* and *World Mandate* firms may compete with other subsidiaries in the internal corporate market. This market is usually open to all affiliates for bidding and is very mobile. A country or region could gain key internal mandates, but equally may lose them in a later bidding war. Alternatively, foreign subsidiaries might compete for product or geographic mandates. These markets tend to be more immobile and not all subsidiaries are able to bid for them. In addition, they represent considerable sunk costs associated with accumulated labour skills and management practices.

The level of competition may vary with the age of the subsidiary, the reporting structure, the product or service type and even nationality of the parent firm. For example, one study has found that firms from France, Italy and Switzerland are more likely to establish subsidiaries that are tightly controlled than are firms from the US or the UK, but that these differences lessen as average firm size increases (Erramilli 1996). There are also strong national differences in the degree of internationalisation of large firms (Van Tulder et al. 2001). Firms employing multi-domestic strategies are less likely to become involved in internal power struggles whereas those that are truly globalised and delegate product responsibility to subsidiaries, may have significant internal wrangling. A subsidiary's ability to obtain mandates for technological development may also be related to its external links with other relevant organisations as well as its performance in the market (Andersson et al. 1996).

Birkinshaw has recently extended his model to describe the tactics used by country managers of different types of subsidiaries. Those country managers that fight are described as "subversives" and in time they eventually develop a relationship with the parent that enables them to develop country capabilities. Those that remain restricted are termed "boy scouts" that continue to follow orders and may not realise the true potential of their subsidiary in its market. While we interviewed senior people in firms we do not believe that we have enough information to definitively place the MNC respondents into either of these two categories. Nevertheless the concept is important and its implications for policy are discussed later in the report.

While Birkinshaw sees these roles evolving over time (Figure 3.4), we would argue that, while time may be a factor, the management structure of the company is as important and can be a deciding factor in the longer term relationship between the subsidiary and its parent.

Figure 3.4: Model of Power Relationships Within Foreign MNCs



Source: Birkinshaw (2001)

Key Questions:

- How do different strategy types influence relationships with Australian companies?
- How do these three types of firms interact with parent firms?
- What are the processes by which foreign MNCs bid for and obtain regional or global product mandates?
- How permanent are these mandates and how did they arise?

3.7 The Impact of E-commerce

The nature of foreign MNC linkages into host economies is likely to be shaped by the growing importance of global and national e-commerce systems. While it is difficult to forecast the future role of business-to-business (B2B) and business-to-consumer (B2C) e-commerce, it is likely that global linkages of MNCs will be increasingly dominated by electronic transactions. Thus the nature of the local linkages or integration of foreign MNCs in Australia will be influenced by such developments. The key question is whether e-commerce will make it easier or harder for SMEs to supply goods and services to major global firms.

E-commerce takes a variety of forms. Its role in manufacturing supply chains is obvious, and through long established use of electronic data interchange (EDI) the potential benefits are reasonably well documented and understood. What is less clear are the possible impacts of B2C product and service delivery on location for market access and the changing importance of proximity of supplier networks to MNCs or their customers. In addition, there is likely to be rationalisation of supplier networks through B2B systems, with resulting impacts on concentration in key supplier industries, diversity and innovation in the supplier networks, and the potential separation of product and process innovation into distinct industry segments.

The UK's Department of Trade and Industry's review of the e-commerce "digital value chain" identifies the following key components (Department of Trade and Industry 1998):

- **Supplier relations:** the internet gives access to a global pool of suppliers, allowing significant purchasing savings. For example, General Electric's adoption of internet technology for purchasing reduced the time to issue a request for quotation from seven days to two hours, reduced purchased materials costs by 20% and labour costs by 30%.
- **Operations:** Computer Aided Design and Computer Aided Manufacturing (CAD/CAM) improve quality, speed up production cycles, and reduce time-to-market for new products. For example, British Aerospace designed the wings for the new Airbus over an intranet and worked with its partners in real time. It estimates that design processes are now 25 times faster.
- **Distribution:** use of ICTs dramatically reduces the time needed to process orders (by 50%-90% for most firms according to an OECD study), and it reduces the need for stock-holding. The OECD estimate that e-commerce means an overall inventory reduction in the US of $250-350 billion.
- **Marketing and sales:** a digital shop front is much cheaper to maintain than a physical one and reaches more people. The cost to a bank of a funds transfer over the counter is $1 - but only one cent over the internet. For example, when Optimum Designs (UK), which produces padded clothing for contact sports, began to provide secure on-line ordering from their web-site, turnover increased tenfold in 12 months, with new orders flooding in from around the world.
- **After-sales care:** use of "smart databases", plus 24-hour access via the internet, enables a better tailored, faster and more convenient customer care service. For example, UK company Otter Water Sports has been selling diving equipment worldwide via the Internet. On-line ordering, together with e-mail, database technology, electronic accounting procedures and video conferencing enable the company to provide a 24-hour customer service.
- **Organisational structure:** IT&T is transforming organisational structures as well as business processes. It facilitates flatter hierarchies, reducing resource costs by shortening management chains, and breaks down organisational boundaries between customers and suppliers. For example, BP has introduced "virtual teamworking" worldwide, using the internet and video conferencing technology. By breaking down hierarchical, functional and geographical barriers, it sped its decision making in oil exploration.

Foreign MNCs may increase their integration into host countries by using e-commerce to allow local firms to supply goods and services more efficiently. On the other hand, e-commerce may weaken integration if it leads to the rationalisation of supply networks and facilitates increased global sourcing. It may also facilitate new linkages – linking Australian suppliers into wider global production chains.

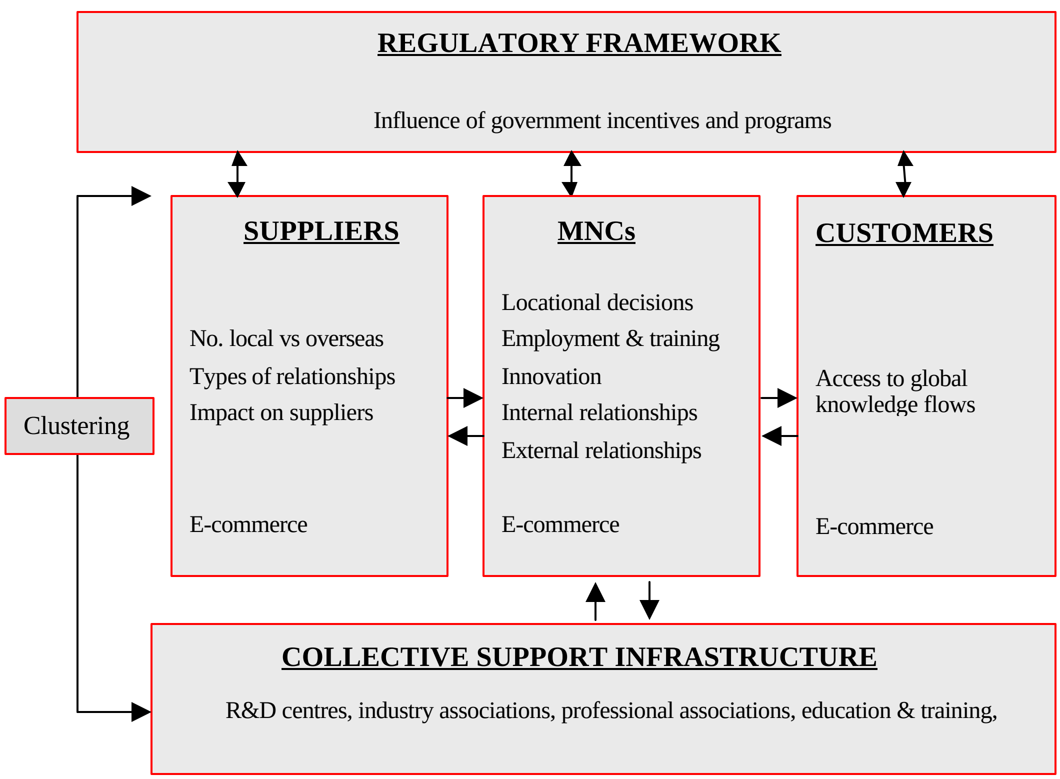
Key Questions:

- To what extent are e-commerce initiatives by foreign MNCs driving changes in supplier and customer practices?
- Does e-commerce have any effect on the integration of foreign MNCs in the national economy?
- Will foreign MNCs be able to bid more easily for global or Asia-Pacific regional charters because of e-commerce?

3.8 A Model for Measuring Integration

Having examined each of the key factors involved in MNC integration into a host economy, this material can be drawn together into an overall model which explicitly demonstrates the issues which are addressed in the rest of the study and how they fit together (Figure 3.). The model covers all the major factors outlined in this overview Chapter and formed the basis of the development of the MNC interview guide and supplier questionnaire.

Figure 3.5: Model of MNC Interactions with Host Economy



The next phase was to examine what was already known about these factors in Australia and how MNCs operate here. This material is reviewed in Chapter 4.

4 An Overview of Foreign MNCs in Australia

4.1 Introduction

This Chapter provides an overview of existing information about the operation of foreign MNCs in Australia. The picture is rather patchy, with large amounts of information on general flows of foreign direct investment (FDI), and little about the effects on local firms.

The Chapter commences with a brief overview about how inward FDI has changed and then moves on to discuss, as far as is possible, the relevance to Australia of the key issues introduced in the last Chapter. The discussion also illustrates some of the controversy that has surrounded the operation of foreign firms here by drawing on case studies from public media sources.

4.2 Australia Has More Foreign Investment Inflows than Outflows

Foreign direct investment in Australia has changed substantially over the last 40 years. In the 1960s and 1970s foreign capital (mainly from the UK) was invested in Australian manufacturing industries because the tariff system required firms to establish manufacturing in Australia in order to sell here. (Moshirian 1998).

These policies were liberalised from the mid-1980s onwards through:

- deregulation of financial markets;
- an increase in the threshold requiring government approval of take-overs and new foreign businesses and projects;
- an easing of controls on the foreign acquisition of land for development; and
- the abolition of the requirements for Australian equity participation and demonstration of net economic benefits (Hanratty 1996).

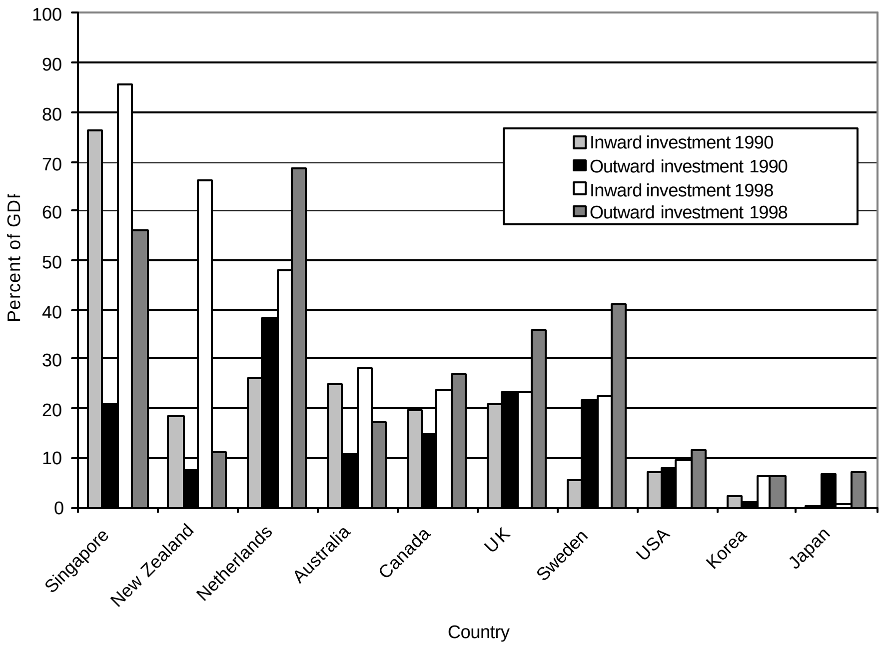
The policy changes which had the greatest impact on globalisation in the decades of the 1980s and 1990s were the floating of the dollar, deregulation of financial markets, and reduction in tariff barriers (Meredith and Dyster 1999).

These changes led to a sharp increase in inward FDI, so that in the eight years from 1990 – 1998 it totalled some AU$60.5 billion (Thomsen 1999). Despite similar rises in FDI outflows (AU$26.2 billion), Australia maintained a net deficit over the period of $34.3 billion. In simple terms, this means that Australia has a large proportion of its firms that are owned by firms overseas. The latest available figures show that we have 2,539 foreign affiliates based here (UNCTAD 2001).[10]

This FDI deficit is atypical of other OECD countries. In 1995 the average FDI as a share of gross fixed capital formation in Australia was 20%, compared with 4.4% in developed countries and 5.2% for the world as a whole (Department of Industry Science and Resources 1998). Similarly, measures of FDI as a percentage of GDP show we are atypical compared to our major trading partners in that we have more inflows than outflows (Figure 4.1).

[10] Compared to 24,114 hosted by Singapore and 6,247 hosted by Hong Kong UNCTAD (2001). World Investment Report 2001: Promoting Linkages. Geneva, UNCTAD..

Figure 4.1: FDI Flows as Percent of GDP by Country and Year (Selected Countries)



Source: UNCTAD (1999)

Foreign Investment Stays in Australia

Once inside Australia it appears that the bulk of investment may stay here. A 1998 study of rural industries, for example, found that on average, for every dollar generated by foreign investment in Australia, 96 cents remained in Australia (Fisher et al. 1998).

A 1996 study of tourism also found that only about 10 cents of every dollar spent in Australia might be repatriated offshore (Forsyth and Dwyer 1992). Other sectors have not, to our knowledge, been examined.

The rise in FDI has often been controversial and has generated arguments about the wisdom of inward investment and the subsequent impact on the expansion strategies of indigenous firms (Box 4.1).[11]

The main concern is that the business decisions of foreign firms will be controlled or influenced by the headquarters and may not be in Australia's best interests. The argument also seems to assume that Australian firms always make decisions in Australia's interests, a statement that is yet to be tested. Furthermore, we argue that, as geographic concentration of economic activity is increasing (Van Tulder et al. 2001), Australia must do all it can to link in to where decisions on the location of this activity are being made.

[11] For example, BRW 14 July 2000, pp60-65

Box 4.1:Shell & Woodside[12]

One of the traditional reasons for investing overseas has been gaining access to natural resources. Even today, examples like the failed proposal by Shell to takeover Woodside Petroleum appear to be primarily about access to resources. Australian control over the commercialisation of its natural resources also appears to be high on the political agenda.

Royal Dutch Shell offered $10 billion for a (60%) controlling interest in Woodside Petroleum – in which it already held 34%. The deal would have given Shell control over the North-West Shelf liquid natural gas project's development and commercialisation. LNG is a key energy resource for the next 20 to 30 years as concerns about greenhouse gas emissions grow. Quite aside from whether the value put on Woodside by Shell was high enough to be successful, economic and political arguments quickly polarised.

Shell argued that it was in its commercial interest to develop and commercialise North-West shelf LNG as much as it has in Australia. Shell's argument was supported by the company's very long history of corporate citizenship in Australia. Indeed, Shell has played a central role in the development of LNG business in Australia for 30 years, and has been a major force behind the development of the North-West Shelf project. They argued that the merger of Shell's oil and gas assets with those of Woodside would have seen Woodside emerge as a 'powerhouse' within the LNG industry: one more than capable of taking on global competitors.

Those opposing the bid suggested that because of its international assets Shell had other possible sources from which to supply customers with LNG. Hence, they would not necessarily promote North-West Shelf LNG in international markets over and above, for example, Middle East sourced LNG. In a move that surprised many commentators, the Federal Treasurer blocked the takeover citing national interest. It was one of the few rejections of foreign direct investment in Australia in recent times.

It is difficult to tell what the longer term impact of the failed merger will be on investor perceptions about direct investment in Australia and on the commercialisation of North-West Shelf gas.

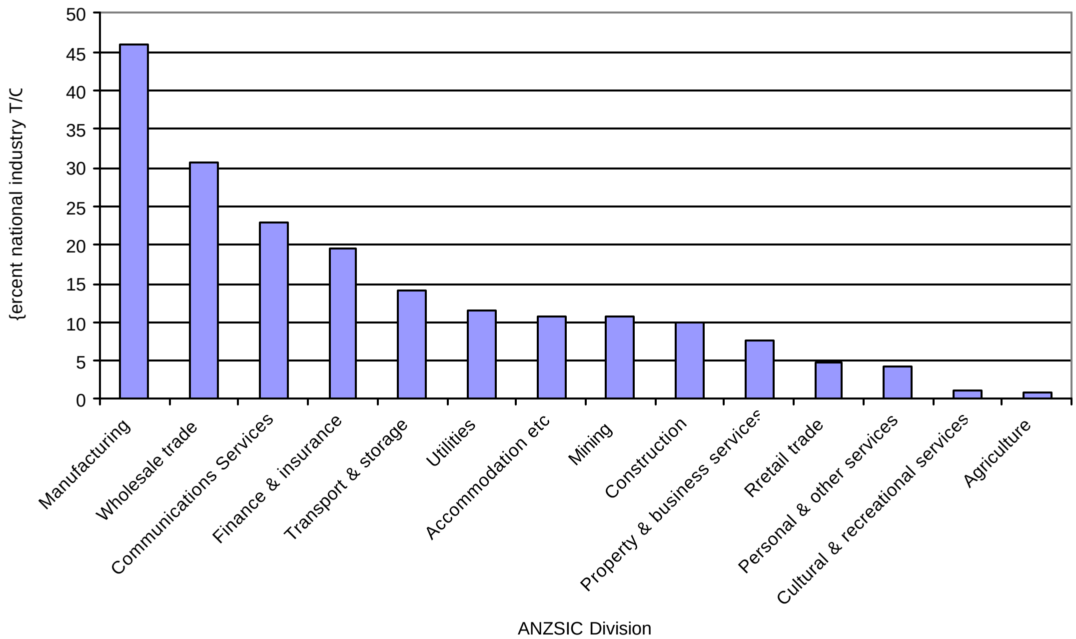
4.3 Net Inflows Create Jobs

Setting aside for the moment the concerns about national sovereignty, there can be no dispute that net inflows create domestic jobs. Data from BRW show that the Top 500 foreign firms in Australia have turnovers averaging $500 million per annum and in some sectors they form a significant percentage of industry activity (Figure 4.2). The larger firms are in Victoria followed by NSW then WA. The effect is particularly significant in manufacturing, where other OECD studies have shown that Australia's

[12] Sources: Compiled from a variety of sources, including: Counsel, J. (2000) 'Woodside fears Shell shock,' *Sydney Morning Herald*, 12 December 2000; Counsel, J. (2000) 'Woodside: Shell offer 'well short'', *Sydney Morning Herald*, 1 July 2000; Howarth, J. and Koutsoukis, J. (2001) 'Woodside: Shell warns as BHP ponders,' *Australian Financial Review*, 15 March 2001; Costello, P. (2001) Transcript of interview with Paul Murray, 6PR, 24 April 2001; Yahoo!Finance (2001) 'Woodside slumps 12% after government rejects Shell bid,' http://au.yahoo.com/finance/20010423/988004580-1141481591.html and the Shell website at www.shell.com

share of production under foreign control places it fifth among OECD countries[13] (Hatzichroniglou 1999).

Figure 4.2: Percentage of Australian Industry Turnover Attributed to Top 500 Foreign Firms



Source: BRW (October 2000)

The large proportion of foreign firm turnover in wholesale trade indicates that many foreign firms have only sales and marketing operations here. These can, however, contribute significantly to local employment. Retail service firms, in particular, have contributed to the growth of a high quality service culture in Australia as well as providing significant employment

Box 4.2: McDonald's Influences Australian Training Standards [14]

McDonald's Australia celebrated its 30th anniversary in Australia in November 2001. It employs 55,000 people directly, and thousands of others in its Australian suppliers. Those training students in catering in Australia say that McDonald's has had far reaching influences in establishing food hygiene standards and has influenced the introduction of systematisation in hotels and restaurants generally.

Government Policy and FDI

The Australian and State Governments strongly support FDI because of the job creation aspects of the investment. They accept OECD arguments that foreign subsidiaries have, on average, greater value added per employee than domestic firms, higher capital intensity, higher labour productivity and higher trade propensity

[13] The ranking was Canada (54%), Ireland (54%), Netherlands (41%), UK (31%), Australia (29%). The percentage differs from Figure 4.2 due to different data collection definitions.

[14] Meacham, Steve (2001): Mac Attack: 30 Years On, How McDonald's Has Changed Us, The Age, 23 November 2001, p15

(Department of Industry Science and Resources 1998). Other data, however, reveal that FDI inflows in 2000 created jobs at a rate more or less equivalent to Australian firms (Invest Australia 2000).[15] This means that the Top 500 foreign firms reported above employ about 1 million people.

To our knowledge there have been no analyses of the types or value of jobs created, although there are concerns that they may be in low-skilled fields (Birrell et al. 2001). In addition, it appears that the main method of inflow into Australia is by acquisition, meaning that the employment effects may be more muted as existing jobs are being transferred to foreign ownership.

Recently, major acquisitions in technology-based sectors have led to public outcries about the loss of "Australianness" of the newly acquired firm. One recent example was the acquisition of Radiata Communications Pty Ltd by Cisco Systems Inc (Box 4.3).

Box 4.3: Cisco Buys Radiata – Australian Technology for Sale?[16]

In November 2000, US-based communications equipment supplier Cisco bid $567 million (US$ 295m) for the 89% of Australian-based Radiata it did not already own. It was the first major purchase by Cisco in the region, and was motivated by Cisco's need to acquire technology to enable it to capture a major share of the wireless LAN market. The 53 staff at Radiata became Cisco employees.

This is not new for Cisco. One in five of its employees come from acquisitions. Some 90% of Cisco's acquisitions are start-ups, and most of the deals are about acquiring technology.

Radiata founders, Drs Skellern and Weste, started Radiata at Macquarie University in 1997, using technology originally developed and patented by the CSIRO and Macquarie University. Cisco takes over the licenses for using this technology, and the original developers enjoy a royalty stream.

A key advantage of the takeover is that Cisco is a firm with operations on a global basis. Radiata's technology is thus capable of being distributed far more widely than it would have been as an independent company.

On the other hand, some see this sort of technology acquisition as a lost opportunity for Australia. For example, former Victorian Premier Jeff Kennett believed Australia has lost a chance to own a global brand. He is reported to have said: "What a tragedy for Australia that we developed a product that perhaps the largest company in the world thought was so important that it might revolutionise communication over the next 10 years, and we have sold it. So we are denying ourselves again the opportunity of developing a Nokia or an Ericsson or maybe one day a Telstra on an international basis."

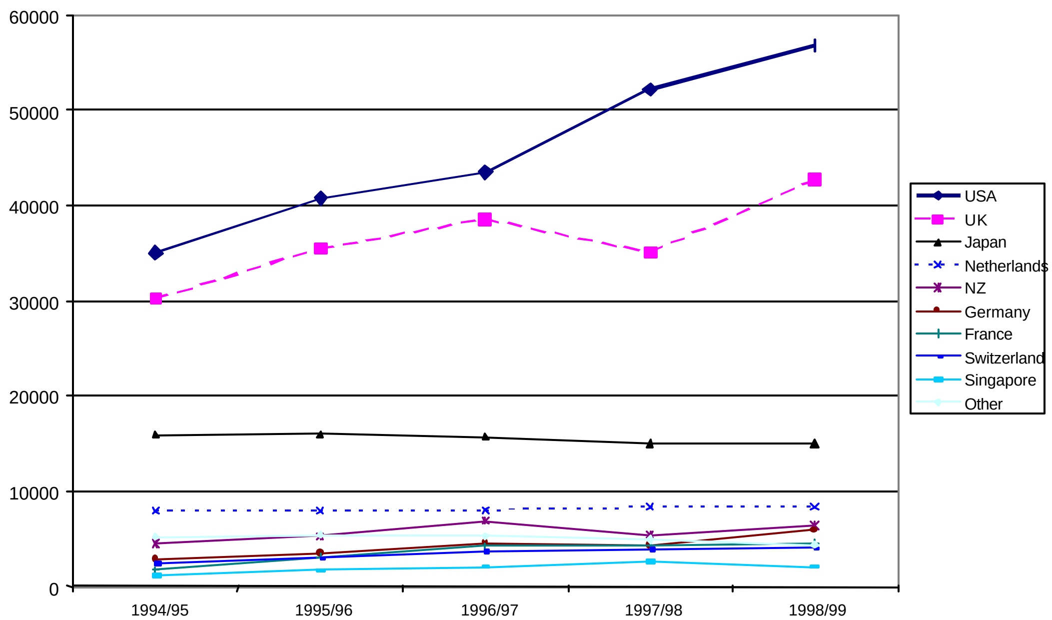
[15] Based on inflows of AU$6 billion and job creation of 23,700.

[16] Sources: Compiled from various sources. Jeff Kennet cited in 'Kennet laments loss of Radiata to Cisco' AAP News, Wednesday, December 20, 2000, 9:54. See http://it.mycareer.com.au/breaking/20001220/A8694-2000Dec20.html

4.4 US and UK Dominate as Sources of FDI

The main sources for FDI into Australia for many years have been the USA, UK and Japan, although the role of the latter has been falling (Figure 4.3). These three countries were responsible for a stable 75% of inflows of FDI into Australia throughout the 1990s.

Figure 4.3: Top Ten FDI inflows to Australia by Source Country



Source: ABS Catalogue No. 5352.0

This pattern is reinforced by data from BRW. The USA, Britain and Japan own 62% of the firms listed in the BRW Top 500 Foreign Firms, with firms from four other European countries owning a further 20% (BRW 2000).

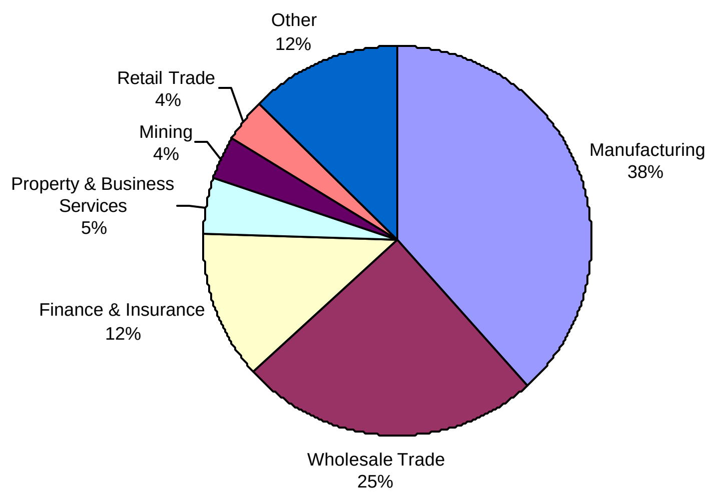
This dominance of foreign ownership by the USA and UK is not surprising given our Western heritage and predominantly English-US culture. Australia remains, however, a relatively small partner for countries like the US, even though our share of foreign investment from the US is higher than might be expected on a per capita basis. In 1998, for example, Australia accounted for 3.5% of US firms' foreign acquisitions or greenfield establishments (Mataloni 2000). However, over the period 1989-1998 the relative size of the firms established here dropped from 9th to 11th in ranking when compared to other sites of foreign subsidiaries, and also dropped in size; whereas US subsidiaries in major European markets grew significantly.

This suggests that US firms in Australia are primarily selling into the domestic market, which is small and growing slowly, whereas US subsidiaries in Europe are accessing other markets outside their host country.

4.5 Service Sectors are Increasing in Importance

In the 46 years from 1964 to 1989 there was a gradual decrease in the proportion of FDI into manufacturing and a corresponding increase in FDI into mining and services (BIE 1993). By 1990, services FDI accounted for about 80% of inflows. This increase corresponded to the increasing service-orientation of the Australian economy (rising from 60% of GDP in 1963 to 78% of GDP in 1998) and was also influenced by multilateral trade agreements in services, particularly the General Agreement on Trade in Services of 1995 (Meredith and Dyster 1999).

Figure 4.4: MNC Australian Operations, 2000, by ANZSIC Division



Source: BRW (October 2000)

It is likely that this shift is partly because of the increase in corporate spinoffs that outsource services previously performed in-house. This contributes to an apparent shift to services in the economy because of the way that these firms are categorised in national statistics.

The second reason for the shift to services is the real effect of changes in the contribution of manufacturing and resources industries over time. Although all sectors are growing with increased population and trade, manufacturing has been growing much more slowly and in real terms has declined from 20% of the economy in 1974 to about 15% in 1999 (Department of Industry Science & Resources 2001).

There is concern in the media about the long term future of manufacturing in Australia, fuelled by the closure or threatened closure of manufacturing facilities. (Box 4.4). These are of concern politically because of the effect on jobs and more recently, the Government has stepped in to lobby on behalf of Australia for maintaining such facilities here.

Box 4.4: IT&T Manufacturing in Australia?[17]

During the late 1980s and early 1990s, the expansion of IBM's manufacturing activities in Wangaratta, Victoria, were among the highlights of achievements under the Partnerships for Development Program, through which the Commonwealth Government sought to encourage MNCs in the IT industry to manufacture locally. IBM in computers and Alcatel in communications equipment became the local manufacturing and export success stories of Australia's ICT industry, together accounting for around 50% of the country's total ICT equipment exports.

By the mid-1990s it was becoming increasingly difficult for Australian ICT equipment manufacturers to compete with the rapid expansion of ICT manufacturing in Asia. In Australia, consolidation started when Bluegum, a Venture Capital backed start-up, took over IBM's Wangaratta site as a contract manufacturer.

It was estimated that the value of sales by contract electronics manufacturers was growing at a compound rate of 25% p.a., reaching US$ 89 billion by 1997, when contract manufacturing accounted for 14.2 per cent of total electronics manufacturing world-wide. During 1998-99, Bluegum earned revenues of about $500 million generated from the factories bought from IBM and Alcatel. It was just one of a number of active contract manufacturers in electronics in Australia.

In mid-2000, US-based contract electronics manufacturer, Solectron, bought the Bluegum Group, acquiring the manufacturing and office sites in Wangaratta, Sydney, Melbourne and Singapore. Solectron took on Bluegum's 700 employees. Founded in 1977, Solectron claimed to be the world's largest electronics manufacturing services company. Its world-wide revenues are currently around US$ 16 billion a year. It offers its clients manufacturing and product support services in markets from some 55 plants throughout the world.

Unfortunately, the recent downturn in ICTs has seen Solectron close its manufacturing plant in Wangaratta, putting 220 people out of work. Solectron continues to operate in Sydney and Melbourne, but the closure at Wangaratta ends one of Australia's long running success stories and seems to bring us full circle to an almost complete dependence upon imported ICT products.

4.6 We Know Little About Relationships in the Value Chain

Suppliers

There is a major gap in our knowledge of how Australian firms (which are mostly small) sell goods and services to foreign MNCs based here. The only sectoral Australian study appears to have been a 1999 study of the information technology industry (Department of Communications 1999).

This survey found that SMEs had considerable difficulty in dealing with their MNC customers (although there was no comparative data on how they managed with Australian customers). Those that had relationships with MNCs indicated that the MNCs were often slow, failed to communicate changes in direction, were reluctant to commit and often used the SMEs to provide commodity-based, rather than value-added, services.

[17] Sources: Complied from various news sources and the Solectron Corporation website at www.solectron.com

The MNCs, on the other hand, felt that the SMEs did not see the big picture, were operating on a hand-to-mouth basis, and had unrealistic expectations of partnering. The report identified ways that the two groups could meet in the middle, by using SMEs for Australia-specific solutions, by developing government policies to encourage alliances and to manage expectations, and by using SMEs to develop specific solutions for MNC clients.

The trend by the Australian Federal Government towards outsourcing of services has also been controversial, with many of the major contracts awarded to large subsidiaries of foreign-headquartered multinational firms.

The issue is hotly debated in the information technology sector where proponents of the development of domestic capability argue that these outsourcing policies have deprived local firms of the scale of operation required to enable them to grow into large multinationals in their own right. Of the major Commonwealth Government IT outsourcing deals during 1998-2000, contracts worth $1.1 billion went to MNCs, while a single $130 million contract went to an indigenous company.[18]

Broader studies of MNCs have found that there are substantial long term contracts with Australian suppliers (Nicholas et al. 1998). Nevertheless there are substantial gaps in our knowledge about supplier inputs, the role of the MNC as a demanding customer, the role of government incentives in encouraging linkages and the benefits of these linkages.

Links between Australian firms and foreign MNCs are also encouraged through sector-specific programs such as the Pharmaceutical Industry Investment Program and Partnerships for Development in the IT sector. However, it appears that such links may be fragmented. For example, the IT survey above showed that while about 7% of the SMEs surveyed obtained over 60% of their revenue from MNCs, 45% of the sample had no relationships with MNCs at all (Department of Communications 1999).

R&D

Foreign firms in Australia perform more R&D than domestic firms and that this R&D is more likely to be in high technology sectors than R&D performed by Australian firms. (Australian Bureau of Statistics 1995; Sheehan and Tegart 1998).

A BRW report on the top 30 R&D spenders at the end of calendar 2000 also showed that half the firms listed were foreign-owned.[19] Affiliates in Australia of foreign firms headquartered in the US, UK and Japan account for 40%, 28% and 5.5% respectively of Australian business spending on R&D (Hill and McKern 1997). However, other US data show that this expenditure is only a tiny percentage of these firms' turnover: US foreign subsidiaries spend under 1% of turnover on R&D (Mataloni 2000).

Finally, a recent survey of foreign ownership of domestic patents found that 14% of domestic inventions were foreign owned (Department of Industry 2000). This is well above the OECD average of 8% and placed Australia 4th in the OECD. The low patent rate in Australia may be due to a number of reasons.

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[18] Department of Finance and Administration (2000) Review of the Whole of Government IT Outsourcing Initiative, Independent Review conducted by Mr Richard Humphry AO, ("Humphry Report") Canberra, Appendix 2.
[19] Ferguson, Adele (2000): The biggest R&D Spenders, BRW Top 1000 List, BRW, 17 November 2000.

The main reason is likely to be the type of R&D being performed. The R&D performed here may not be patentable as it may relate to minor product modifications to increase market share rather than basic R&D (Table 4.1) (Turpin 1996; Hill and McKern 1997). Turpin's study also showed that foreign-owned firms were much more active than Australian firms in higher R&D intensive industries. A recent OECD analysis has also shown that close to 47% of Australian manufacturing R&D was under foreign control, the second highest in the survey (Hatzichroniglou 1999).[20]

Table 4.1: Objectives for Innovation by Ownership 1991-93

Industry category	**Increase market share**		**Create new national markets**		**Create new overseas markets**	
	Aust-owned	Foreign-owned	Aust-owned	Foreign-owned	Aust-owned	Foreign-owned
High R&D intensive industries	63%	97%	74%	63%	49%	56%
Medium-high R&D intensive industries	69%	82%	64%	75%	30%	47%
Medium-low R&D intensive industries	71%	66%	63%	63%	29%	52%
Low R&D intensive industries	69%	59%	55%	63%	21%	28%

Source: Turpin (1996)

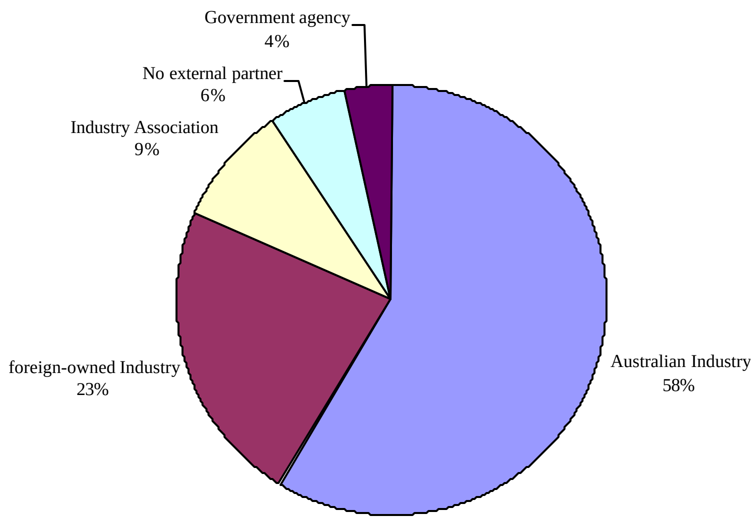
Foreign firms in Australia appear to rely more on in-house R&D and have relatively few links with the national innovation system. For example, the latest CRC Compendium (Department of Industry Science & Resources 2000) lists 240 non-research institution associates of CRCs, of which 196 are firms. However, only 28% of these are foreign owned (23% of total CRC partners – Figure 4.5).

While 38 of the 55 foreign-owned firms are listed in the Top 500 Global Firms, the remaining 462 firms in the Top 500 do not appear to be associated with CRC's.

Thus, the larger R&D performers do not appear to be associated with the CRC system even though it is a major part of the Federal Government's innovation strategy. More than two-thirds of the foreign-owned firms are associated with CRCs in information and communications technologies and manufacturing.

[20] The order was Ireland (71%), Australia (46%), Canada (37%), UK (17%), Netherlands (16%).

Figure 4.5: Type of Partners in CRCs, 2000



Source: Derived from CRC Compendium (Department of Industry Science & Resources, 2000)

Part of the reason for the relatively low involvement in CRCs is the reliance of foreign subsidiaries on technology derived from their parent corporations. This is revealed by Australia's high level of payments overseas for technical know-how. The Australian R&D Scoreboard annual surveys confirm this perspective. For example, in 1999, foreign firms reported 2.3 times the R&D expenditure of domestic firms, but domestic firms registered three times as many patents (Rogers and Feeney 1999).

Even if patentable technology is developed in Australia, the patents may be registered overseas. For example a Japanese study found that of 1058 overseas patents lodged by IT&T firms, only 0.2% were registered in Australia. The reluctance to register patents in Australia is likely to be due to our small market size, the dominance of the US in the global markets (and the subsequent need to register US patents), and policy decisions by parent corporations on patent registrations.

Despite this, however, there are cases of foreign MNCs committing to basic R&D in Australia (Box 4.5). Such activities may be the result of the firm's internal strategy or other factors such as government policies supporting business enterprise R&D (e.g. the R&D tax concession) or promotion of R&D linkages between firms and public sector R&D institutions. The Australian government has a number of programs to promote these linkages. The major programs are the Co-operative Research Centres (CRCs), R&D START grants and university-industry linkage programs.

Box 4.5: R&D Initiatives in Melbourne [21]

NEC, Ericsson, Motorola, Agilent, Banspeed and Emerge are promoting an initiative launched by NEC to establish a major centre of excellence for R&D in wireless communications. The proposed centre would link RMIT and Victoria University into the pre-competitive R&D of the companies involved and help the companies share the costs and risks involved in fundamental R&D.

The centre proposed would employ around 100 people under the present 5 year plan. Australia has a significant base in wireless communications R&D and developments, and the aim is to create a "technology cluster" around that base.

4.7 Reasons for Clustering are Unknown

It is unsurprising that foreign subsidiaries of MNCs in Australia are clustered in the major cities of Sydney and Melbourne. Of the "Top 500" global firms, 58% are headquartered in Sydney and 30% are in Melbourne, with only a few percent in each of Brisbane, Perth, Adelaide and elsewhere (BRW 2000).

Location in a large city such as Sydney or Melbourne does not necessarily mean that firms are integrated into these regions. We have little information on the pattern of local vs. distant external relationships and the impact of these on domestic firms.

Thus, we do not know whether MNCs are attracted here due to localisation or urbanisation effects (i.e. the attractions of sector-specific inputs on the one hand, or the general advantages of working in an urban environment on the other).

Training of local staff is also an important intangible benefit of inward investment. We are aware of no pre-existing studies on the role of this in the Australian context.

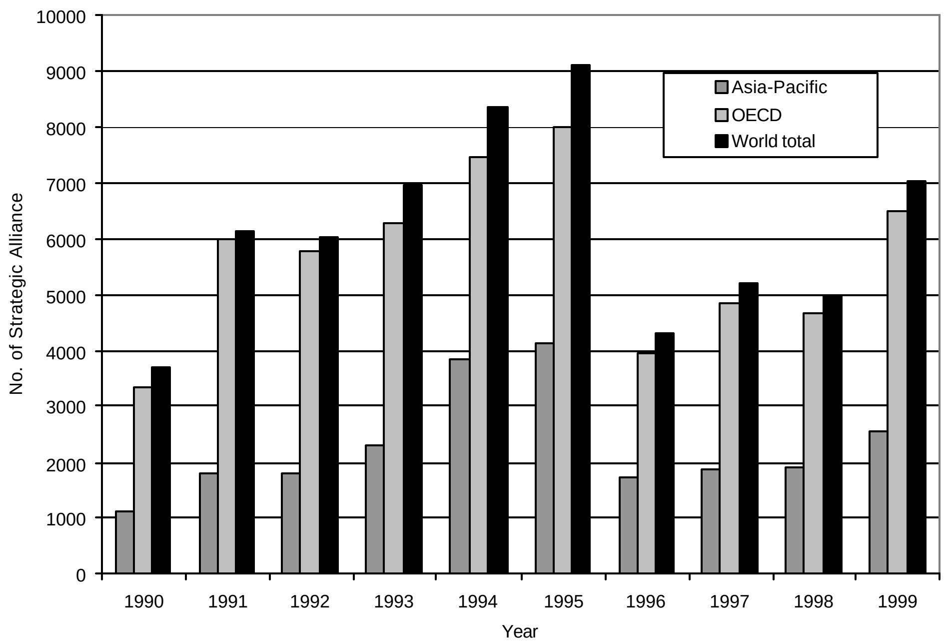
4.8 Australia Has a Role in Global Alliances

Strategic alliances are an important component of international knowledge networks. The Asia Pacific area accounts for about 30% of strategic alliances formed over the period 1990-1999 (Figure 4.6).

Of these, two-thirds involve Japan and China, and only 12% involve Australia (i.e. 3.6% of global alliances, a level higher than expected on a per capita basis). About half of the total Asia Pacific alliances are in manufacturing (sub-contracted production or alliances with suppliers).

[21] Source: Kirby, J. (2001) 'Research: Industry unites for local push on wireless,' Business Review Weekly, 29 June 2001.

Figure 4.6: Regional Distribution of Strategic Alliances, 1990-1999



Source: (Kang and Sakai 2000), derived from Thomson Financial Securities Data

Australia's alliances are predominantly international (Table 4.2). We also feature among the top ten partners of the US – ranking 4th in 1999 with 125 alliances.

Table 4.2: Alliances by Country, 1999

	Total Alliances	**Percent International**
USA	37,548	48.3
Japan	9,417	83.7
UK	5,565	83.0
Canada	4,269	66.2
Germany	3,877	84.8
France	2,828	89.6
Australia	**2,550**	**68.9**
Netherlands	1,477	89.4
Italy	1,430	86.4
Switzerland	872	91.5

Source: (Kang and Sakai (2000), derived from Thomson Financial Securities data

Australian firms have been able to use global alliances to build their own global capacity (Box 4.6).

Box 4.6: IBM and PSL Form Major Alliance[22]

Proteome Systems Ltd (PSL), a biotechnology company based in Sydney, has recently announced an alliance with IBM. The proteome is all the proteins derived from the human genome. At the core of the alliance is IBM's provision of its IT platform for PSL's proteome analysis. Press articles about the alliance report that PSL is now one of 70 firms with which IBM has a global strategic alliance and that, through the alliance, PSL will have access to a team world-wide and may second IBM staff into the company.

[22] Boyd, Tony (2001): IBM Shot-in-Arm for Proteome, Australian Financial Review, 21 November 2001, p44

4.9 Acquisitions Appear to Be Major Entry Mode

In Australia, it appears that 85% of FDI flows in through acquisitions, a figure which is higher than the world average of 60% (Thomsen 1999). Firms enter a new market by acquisition in order to access existing skills or market share, or if there are regulatory barriers to greenfield establishment. Singapore Telecommunications entered the Australian telecommunications market by acquisition for just this reason (Box 4.7).

Box 4.7: Optus – Accessing Markets?[23]

> Regulatory restrictions on telecommunications mean that acquiring a license to operate a second carrier has been one of the few methods of market entry, enabling firms to establish a leading regional position. The approval of Singapore Telecommunications' (SingTel) bid for Australia's C&W Optus is a case in point.
>
> With Japan's NTT, SingTel is one of the Asia Pacific's major regional players. NTT has invested in Singapore, Taiwan, Hong Kong and the Philippines. Hutchinson has expanded its interest around the region. Telstra and Pacific Century Cyber Works (PCCW) have teamed up in order to become a leading regional force. Now SingTel is attempting major expansion, beating off rival interest in Optus from Telecom New Zealand and Vodafone Pacific.
>
> SingTel is Singapore's largest company and one of Asia's largest in terms of market capitalisation. It has already established operations in 22 cities in 14 countries and territories including China, India, Malaysia, Indonesia, the Philippines, Thailand, Vietnam, Australia, the UK and the USA, although the profitability of a number of these investments has been quite poor.
>
> The takeover of Optus would see SingTel become a major regional player, with annual revenues around $10 billion and market capitalisation of more than $45 billion. If successful, SingTel will seek a listing of its shares on the Australian Stock Exchange. Optus would add more than 8 million mobile subscribers and up to 1.5 million fixed line customers in Australia, generating annual revenues of the order of AU$4.5 billion.

4.10 Foreign MNCs May Be Excluded from Global Knowledge Networks

Information networks also play an important facilitating role in many service industries. The "export" of professional services such as engineering services, architectural services, legal and management consulting and advisory services increasingly depends upon affiliate office access to global information networks that embody corporate knowledge (Allen Consulting Group 2001). These systems can be a mechanism for the diffusion of technology and expertise, but if structured hierarchically, can also act to isolate foreign affiliates from key corporate developments.

We know from prior work in the banking and finance sector that, despite rhetoric about accessing knowledge networks, Australian-based subsidiaries of major banking and finance companies are often cut off from the real informal networks operating within headquarters located overseas (Langdale 2001). This appears to be the only

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[23] Sources: Singapore Telecommunications website www.singtel.com; Optus website www.optus.com.au; ABC News, 26 March 2001; and Bidaud, B. (2001) 'What if SingTel wins the Optus bid?' Cnet, 20 March 2001, Singapore.CNET.com; Australian Financial Review 23 August 2001, "Costello's Yes to Optus Takeover", p3

sector where this issue has been directly addressed. This issue is one of the key issues addressed in the next Chapter.

4.11 Internal Competition within MNCs Influences Local Activities

As noted in the previous Chapter, the main types of internal competition relate to internal markets and product/geographic mandates. Internal markets for intermediate goods and services are very mobile, whereas product and geographic mandates, on the other hand, are much less mobile, require major investment and provide the foreign subsidiaries with a substantial degree of either autonomy or involvement in the total strategic direction of the multinational firm.

Regional Headquarters

One type of geographic mandate is the Regional Headquarters (RHQ). The Australian government defines an RHQ as a company located in Australia, whose parent company is located in a country other than Australia, and that provides business services on behalf of the parent company to associated companies and customers located in countries other than Australia. Business services include, for example, management, financial, treasury, business planning, marketing, accounting, IT, telecommunications, training, R&D and customer support services, but exclude sales activities. Most RHQs are headquartered in Sydney (61%) with 23% in Melbourne, 13% in other capitals and the remainder in regional areas.[24]

RHQs may provide additional jobs, may add to export growth and may support access to technology and distribution channels. Singapore, however, competes strongly with Australia as a destination for RHQs and has succeeded in attracting substantial inward investment through tax cuts and a strongly pro-active approach based on targeting specific sectors identified in its five years strategic plan (Craig 1997). It is also becoming apparent that MNCs are aware of the value of designating a location as an RHQ and some MNCs operate “distributed” RHQs to please governments around the world. A recent press article, for example, alluded to this by describing many RHQs as “nothing more than a few senior executives spending the weekends at home with their families”.[25]

Government Policy and RHQs

RHQs have been a major focus of the Federal Government’s inward investment program, now part of a broader scheme managed by Invest Australia. The Government’s promotional material argues that Australia has a particular advantage as a location for RHQs due to being in the same time-zone as Asia but being based on English language and culture. This generalist approach identifies Australia’s advantages not on particular competitive strengths of our business skills and structures but on accidents of geography and history.

Since the program started in 1993, the number of RHQs has increased substantially (Figure 4.7). Their establishment has been facilitated by government marketing programs, grants for feasibility studies, entry level training incentives, taxation incentives, streamlining of immigration requirements and establishment of resources within the Federal Industry Department (Invest Australia 2001).

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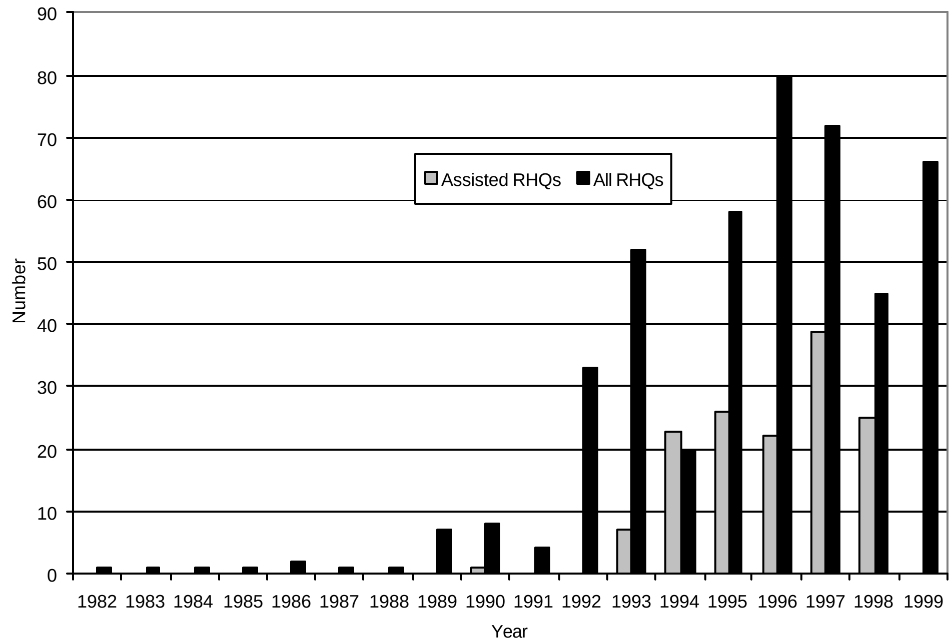
[24] Unpublished data from Invest Australia

[25] Hayward, Bob (2001): Building Blocks of Imagination, BRW, 13 July 2001, p26

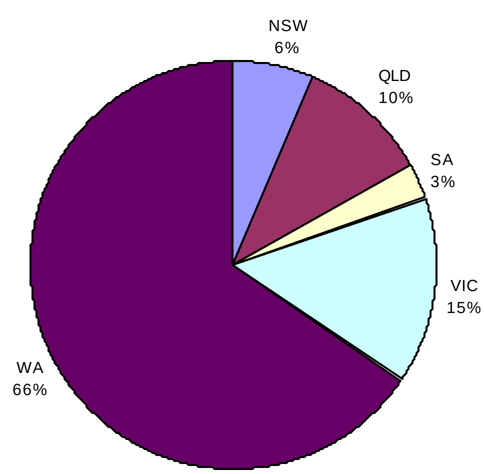
Figure 4.7: Growth of Regional Headquarters in Australia Since the 1980s



Source: Allen Consulting Group (1999)

Individual States also operate their own programs to encourage inward investment. These programs may provide relief from payroll and other State taxes and capped or uncapped direct financial assistance. The latter can be substantial. Recently The Economist magazine reported the WA Government had enticed Pharmacia & Upjohn to Perth with a $34 million grant for the firm to develop the use of plastic instead of glass vials for packaging cancer-treating chemicals (The Economist 2000). The pay-offs can be significant in relation to total investment (Figure 4.8), but there is widespread concern about States competing and bidding away some of the potential benefits of FDI.

Figure 4.8: Foreign Investment Attracted by States, 1999/2000



Source: Invest Australia (2000)

4.12 E-Commerce Impacts on Relationships Between MNCs and SMEs is Unknown

E-commerce is expected to have a major impact on the Australian economy. IDC estimates the e-commerce market in Australia in 2000 at $7.9 billion, two-thirds of which were B2B transactions.[26] A recent study of the potential aggregate and sectoral impacts of e-commerce in Australia suggests that increased use of e-commerce could (National Office of the Information Economy 2000):

- Boost national output by 2.7% over the next decade – worth the order of $14 billion per annum.
- Increase real investment by 4%, and consumption by 3%.
- Increase aggregate employment by 0.5 per cent and real wages by 3.5 per cent.
- Contribute 2% to an appreciation of the real exchange rate.

NOIE also forecast the strongest growth in the entertainment and hospitality industries, communications sector and banking and finance. Individual firms are already reporting time savings in procurement of the order of 75%-90%.[27]

Major Australian and foreign multinational firms have been quick to explore e-commerce opportunities and many foreign MNCs are participating in or driving key initiatives. Shell Australia emerged as a bidder for e-tailer dstore when it was sold off as part of the failed retailer Harris Scarfe and also bought a 50% share in dstore's logistics arm, e-fill. IBM has also committed to local e-commerce developments (Box 4.8). E-commerce may alter the nature of these firms' links into the rest of the economy and have potential to restructure entire supply chains. It is important for us to understand these potential impacts in more detail, but to date there have been no detailed studies of these issues.

Box 4.8: New E-business Models are Emerging

IBM has selected Sydney as a site for one of its 20 global e-business innovation centres. Sydney will employ up to 500 people over the next five years and will focus on security, network services and e-business solutions. According to IBM, Sydney was chosen over Singapore for the centre because of its large pool of technology graduates and its reputation as an innovator in e-business. Clients of the centre will be able to work with IBM staff in the centre and this should help them to tap into IBM's global knowledge networks.

Government Policy and E-commerce

The Government's e-commerce focus has been on the provision of infrastructure due to perceived problems with lack of access to technology, high cost of technology and the failure of Australian firms to migrate their inventory, sales and supply systems on to compatible platforms (Department of Industry Science & Resources 2001). From other projects we have undertaken, we are aware that while many larger firms are taking the lead in establishing e-commerce portals, smaller suppliers can foresee problems with implementation caused by incompatibility in customer hardware and software systems, different expectations in extent of customer service, and difficulties in the logistics of delivery.

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[26] Head, Beverley (2001): E-markets Alive and Booming, BRW 11 May 2001, p24
[27] Nicholas, Katrina (2001): Shell Frontrunner in Race for Dstore, Australian Financial Review 4 June 2001, p42

Such initiatives look set to change the extent and nature of inter-firm linkages.

4.13 Conclusions

Australia is highly dependent on inward foreign investment, particularly from the US and UK/Europe. The firms making investments here are usually large and hence have a major impact on Australian employment. More subtle influences, however, are more uncertain due to lack of data.

Although MNCs may draw significant inputs from Australian firms, past studies of the supply chain in the information technology industry have found that relatively few Australian-owned (usually small) firms have relationships with foreign MNCs. This implies that, at least in the IT industry, MNCs are drawing inputs from other foreign MNCs as Australia has few Australian-owned large IT firms.

Supply relationships with foreign MNCs may not be easy to manage if you are small, but they are important because the MNCs operating here are relatively innovative, undertake a large proportion of industry R&D and are more focused on global markets than Australian firms. On top of this, e-commerce is having a major impact and supplier firms are being pushed to participate in web portals while the larger firms take the lead in adoption due to perceived cost reductions.

Australian governments recognise the impact of MNCs and promote inward investment but tending to focus on job creation. This has led to an emphasis on attracting regional headquarters, but there is substantial competition from Singapore and Hong Kong. Singapore has been more successful at attracting foreign subsidiaries because it has targeted its strategy to match its wider strategic growth plan. However, it is probably more important for Australia to focus on enhancing its global knowledge flows which are vital in our ability to compete in world markets. Australia needs to be more centrally situated in these knowledge networks so we can maximise our long-term international competitive advantage.

The next Chapter will explore these issues in more detail as we build a more comprehensive picture of MNC activity in Australia, drawing on findings of the MNC interviews and supplier survey.

5 Impact of Foreign Firms

This Chapter reports the findings of the MNC interviews and supplier survey. A summary of key results from the 30 MNC interviews is at Appendix D and the key results from the written supplier survey are at Appendix E.

The written survey of Australian suppliers found that suppliers' largest MNC customers contributed, on average, 31.3% of supplier turnover, while their large Australian-owned customers contributed 18.5% of supplier turnover. Relationships with MNC customers are therefore very important to the ongoing viability of the Australian suppliers who responded to the written survey.

The Chapter is organised around three core themes:

- MNCs' contribution to building Australia's capabilities and critical mass**.** Key issues considered under this theme are the influence of MNCs on suppliers and customers; technology transfer from MNCs to Australian organisations; the scale and type of R&D performed in Australia; and the significance of strategic alliances.
- MNCs' contribution to Australia's global reach. Key issues considered are the link between the scales of employment, exports and regional headquarters (RHQs); Australia's role in RHQs; Australia's position in MNCs' centres of excellence; market opportunities for Australian suppliers; and e-commerce.
- MNCs' contribution to building skills and knowledge. Key issues considered are the importance of access to global knowledge flows; the extent of knowledge linkages between MNCs and Australian firms; benefits to customers from access to knowledge held by MNCs; and training and overseas employment opportunities for Australian staff of MNCs.

The implications of these findings are discussed in Chapter 6.

5.1 Contribution To Building Australia's Capabilities And Critical Mass

MNCs are Improving Suppliers' Standards

Foreign MNCs contribute to building Australian firms' product and service quality as they demand high standards from their suppliers. Thus Australian suppliers to these firms are more likely to produce higher quality products and services in their home markets. This leads them to be more competitive in international markets. The operation of MNCs in Australia provides opportunities for Australian suppliers to lift their standards and become more globally competitive.

The top three suppliers to MNCs are mostly large firms in their own right. Nevertheless the MNC respondents said that they trained or certified over half these firms in meeting product quality standards. Product standards were more likely to be demanded by technology-based firms and consumer product firms and were more likely to be imposed on manufacturers than other types of suppliers (**Box 5.1**).

Box 5.1: Colorpak Packaging

Colorpak Packaging Pty Ltd manufactures glossy coloured packages for a range of household products. Its customers are other manufacturers. Colorpak works with the local subsidiaries of foreign owned manufacturers as well as Australian firms. These are good customers in that they pay well and are a steady source of income. However, Colorpak finds them more heavy-handed in their demands for formal quality certification and also more price-conscious. Managing Director of Colorpak, Paul Commins, responded to the demands of one large MNC customer some years ago, and implemented ISO9001 standards. He says that "these were needed in the long run anyway, but Australian customers were about twelve months behind in seeking these same standards."

Colorpak has been affected by decisions of foreign owned firms to move their manufacturing overseas. "The effect is enormous and it is devastating when that happens," he says. "Theoretically we can continue to supply to the new manufacturing location in Asia, but there are often tariffs in place and so it is not cost effective." However, one foreign owned customer has brought Colorpak into Asian export markets by recommending Colorpak to another subsidiary in its group.

Colorpak has ten strategic alliances with multinational customers. Paul Commins says that these are intended to lock his company into fixed price contracts and have all been initiated by the customer. Australian customers, he says, are less concerned about price and are more interested in quality and other factors.

MNC respondents also set service quality standards for over 60% of external suppliers. These were particularly important for MNCs in resources and consumer products. For these firms the logistics associated with supply are more difficult and delays in supply can affect production.

Although we only asked about the three largest suppliers, many foreign MNCs commented on their relationships with smaller firms. Smaller suppliers are also subject to the same demands for high product and service quality, but may be assisted to meet these by the MNCs. One respondent in a manufacturing sector had purchased a crucial supplier in order to ensure its viability and to increase the quality of the final product.

Responses from the supplier survey confirmed these views. One-quarter of suppliers surveyed reported that their MNC customers trained or certified them in meeting product quality standards, and 21% responded positively to the same question about service standards (Table 5.1). Australian customers, on the other hand, were much less demanding, with only 13% of suppliers reporting product quality requirements and 9% reporting service quality requirements.

Table 5.1: Suppliers' Reporting of Quality Demands

	MNC Customer			**Australian Customer**		
MNC Demands	**Yes**	**No**	**Don't Know**	**Yes**	**No**	**Don't Know**
Certify Product Quality	14 (25%)	37	5	7 (13%)	42	7
Certify Service Quality	12 (21%)	41	3	5 (9%)	45	6

Source: Supplier Survey

Some suppliers felt that the increased demands placed on them by their MNC customers created difficulties. MNC customers were perceived as being more rigid in their demands, sometimes culturally insensitive, and very price driven (Box 5.2).

Box 5.2: **Professional Careers Australia**

Professional Careers Australia is a human resources and recruitment consultancy firm based in Canberra. PCA has in excess of 1200 clients, very few of whom are foreign owed or multinational. Managing Director Jim Ritchie says "The majority of our clients are either Federal or Local Government or professional firms. The few multi national clients we find are often difficult to deal with, as they are very rigid in their requirements and impose unfavourable terms upon us."

Some believe that the differences lie in customer size rather than ownership of the firm (Box 5.3). However it is beneficial for Australian firms to learn to work with large customers, as this is more typical of the size of firm they will encounter overseas.

Box 5.3: Eagle Datamation International

Eagle Datamation International Pty Ltd, based in Sydney, develops software specifically for freight forwarding. It has a dominant role in the Australian market and has expanded into New Zealand, Singapore and Thailand.

The company sees little difference in working for Australian versus foreign owned customers in this country. This is primarily because both sorts of customers are working in the same regulatory and commercial framework in Australia and have similar regulatory and cost pressures.

"There is really very little difference between the two types of customers," says Richard White, CEO. "Those differences that exist are more to do with customer size. Although there are thousands of small things that would count as differences between Australian and foreign owned customers, the commercial conditions on them are basically the same. The main differences are the large international clients usually have an existing IT strategy for e-commerce and this sometimes makes them more complex to deal with. On the other hand, our smaller customers are looking to us to provide a IT e-commerce umbrella and future strategy for development of e-commerce to compete with those larger multinationals, and this provides us with opportunities in the longer term."

Suppliers Gain Market Standing from Selling to MNCs

Suppliers that can demonstrate sales to large foreign-owned firms have a significant advantage in demonstrating the worth of their goods or services to other potential customers. A majority of suppliers reported that they had referred to their sales to MNCs in their own marketing efforts (Box 5.4). Those Australian supplier firms which have developed good working relationships appear to benefit from the added demand on them (Box 5.5).

Box 5.4 Arrow Scientific

Arrow Scientific is an importer of food safety and quality testing equipment. It sells this equipment directly to food manufacturers in Australia. Louis Petrin, General Manager, says there is a large amount of consolidation in the food industry but there are always small farms starting up, trying the make new products that they can sell. "Some of our multinational customers may not buy often from us, but they are significant in terms of turnover. As larger firms, they are more professional and more aware of what their needs are. On the other hand, they have a higher staff turnover and we are constantly having to re-establish our networks with them. Selling to them is worth it – it gives us credibility and helps us to sell our product to other customers."

Box 5.5: ITL Corporation

ITL Corporation in Canberra creates and commercialises new medical products for world markets. Ninety nine percent of its production is sold in over 25 countries worldwide. Its state-of-the-art manufacturing facility is located in Malaysia and it is undergoing a major capital expansion plan to facilitate current and future growth. Its customers are generally large multinational medical companies which distribute its products worldwide and in Australia.

Director Bill Mobbs says that it is important to work at all levels of the customer organisation including both the Australian offices as well as the international regional headquarters. "We start with the Australian office but these usually have limited autonomy and so to get the product moving you have to deal with head office, and everywhere else in between."

ITL's products meet stringent quality standards because they are in the medical field. Before the companies can offer products for sale in Australia and in other world markets they are registered by the appropriate regulatory agencies. ITL's multinational clients often also have their own in-house quality control and testing because ITL products are incorporated within products that they manufacture and distribute.

Some MNCs Work With Customers in Market Research

The linkages between some foreign MNCs and their customers enhances the efficiency of Australia's marketing system. Many MNC respondents, particularly in consumer products, other manufacturing and technology-based industries, worked closely with major customers in market research. The customers with whom they worked were mainly in goods distribution (supermarkets), although there were some in knowledge services (IT and telecommunications).

Consumer products firms, in particular, stressed the importance of working closely with major customers in measuring the market and jointly undertaking marketing. Firms based in Europe and the UK also stressed the advantages of close customer relationships.

Several large consumer products companies meet regularly with customers and may have staff working in their customers' organisations to facilitate supply chain management.

One technology-based MNC pointed out that it had opened sections of its database for a major customer, who had done the same for it. Both firms gained in this information exchange. The customer was able to see the progress of its orders and plan when delivery would take place; the MNC could see where demand was occurring for its products and could better plan its production scheduling.

MNCs' R&D is Limited and Focused on Product Modification

R&D was reported by all the technology-based and other manufacturers, a significant proportion of the consumer product manufacturers, and about half of the other service and resources firms. All 22 reported that their R&D was to modify products for the local Australian market. Of these, 13 also said that they undertook applied research, and 10 did basic R&D.[28]

The emphasis on product modification indicates that Australia is of relatively minor importance in terms of global product and process development. This causes some frustration to Australian suppliers that wish to undertake R&D for their multinational customers (Box 5.6).

Box 5.6: R&D Suppliers

An Australian supplier of purpose-built hardware and software systems has had mixed success in its dealings with Australian-based foreign owned firms. As a supplier to the defence industry, it is positioned in the second or third tier of supplier firms, and its customers are the Tier One firms that win major Defence contracts. The CEO of the firm finds that his potential foreign owned customers are very price driven. "They are also risk averse and we are often forced to carry risk well beyond their contribution. Our potential customers have also been reluctant for us to undertake development. Perhaps this is because they don't want to help a company in Australia which, ten years down the track, might compete with them. This is understandable. There are also intellectual property issues in having the work done here."

A number of other firms did little or no R&D, but they did test and develop products in Australia. Four of these firms said that their head office recognised that Australia was a rapid adopter of new products and services. As a result, head offices sometimes agreed to the testing of new systems, e.g. in e-commerce. One MNC had developed an e-commerce product in Australia which had been largely developed in-house, but small Australian software firms were also used.

Only one MNC outsourced R&D to other firms. However, 49% of supplier respondents reported that they performed R&D for their multinational customers (compared with 34% of respondents in relation to their Australian customers). Suppliers in technology-intensive industries reported the greatest benefit (Box 5.7).

[28] Numbers add >22 as firms nominated more than one type of R&D.

Box 5.7: ITL Corporation

ITL Corporation in Canberra develops unique medical devices for new and existing customers. Director Bill Mobbs notes "Any R&D or product development we do must have a global focus. The Australian market is too small and any R&D for Australian customers alone would have perhaps 1/20th of the return of R&D targeted at our global customers. We know that our global customers have the power to sell our products in large volumes and hence we get better returns. We use the Australian customers as a test market as we find that there is general resistance to buying innovation in Australia, especially if it is from an Australian company. Sadly, we usually have to prove the product overseas before we get take-up in Australia."

Bill Mobbs finds that there is limited opportunity to use sales to one multinational company to obtain other sales to different customers. "Their products are high value and the relationship usually involves exclusive distribution. ITL does, however, gain some benefit from having a successful track record with multinational customers, with the customers realising that ITL has a global view and is proactive as well as reliable.

ITL recognises that many Australian firms have difficulties with multinational customers. Bill Mobbs believes that many Australians think the world will beat a path to their door but he knows that this does not happen in the real world. He says "Large firms can be bureaucratic and tend to focus on cost. You have to approach these firms like you would approach somebody who is risk averse. While you may want a multinational to take up your new product, you need to recognise they may already have substantial market share. The person you are dealing with is probably thinking, 'the upside is maintaining the status quo but the downside is, I may lose my job.' You need to work out how to make these people value your product. One good way is to create a pull market from their own customer base; in this way you stand to maximise the benefit from the relationship."

A few technology-intensive MNC respondents classified their research as basic R&D. These had a range of policies in relation to registration of the resulting intellectual property, with some lodging Australian patents in the name of the subsidiary, and others lodging patents in the parent's name in the US or in home base. The latter approach removes control of the commercialisation from the subsidiary and also lowers Australia's official patenting rate.

MNCs May Transfer Technology to Suppliers and Customers

Despite relatively low levels of R&D in Australia, respondent MNCs do transfer technology from their parents into Australian firms, with 36% of MNC respondents reporting such transfer. Firms which made significant contributions to product development at either a regional or global scale were also more likely to transfer technology, as were firms from UK/Europe.

Manufacturing firms were more likely to be the recipients of new technology than other types of firms. Such transfer was particularly important for MNCs who were responsible for regional or global product development from their Australian operations.

Suppliers also reported that MNCs were more likely than Australian firms to transfer technology. The supplier survey found that 25% of MNC customers had transferred technology to these suppliers, while only 18% of Australian customers had done so.

Technology transfer from MNCs to customers is an important component of the contribution of foreign MNCs to Australia. The effect is concentrated in technology-based firms, which often need to train their customers in using new products and also needed to work closely with them to ensure the successful adoption of products based on their technology. Consumer products firms also introduce their customers to goods tracking technologies that make it easier for the MNC to respond to market changes.

Strategic Alliances Strengthen Capacity in Suppliers and Customers

Competitive and co-operative relationships between firms are increasingly complex in nature and firms are often competitors and partners at the same time with each other. Strategic alliances were significant for a small number of MNCs, particularly those in technology-intensive areas and where the MNC also did its own R&D in Australia. These alliances build close working relationships and help Australian firms to build greater capacity through stable relationships where trust develops.

Alliances between MNCs and their suppliers and/or customers were particularly important. One technology-intensive firm had worked closely with its major customer and this had led to a centre of excellence in technology for the MNC. Another technology-intensive firm thought of their subcontractors as alliance partners.

MNCs were asked whether the decisions on alliances were made by head office or themselves. One firm said that even though head office made the decision, it was really a joint decision and if the Australian subsidiary was not willing to co-operate then the alliance would not work. Some firms in which the head office made the decision tended to be less "connected" to the Australian economy.

Box 5.8: Food Spectrum

Food Spectrum, a food ingredients manufacturer, performs R&D for many of its customers, helping them to improve their products. It prides itself on its close working relationship with customers and is currently developing a vendor inventory management system through which it monitors customers' production and stock levels, enabling it to manufacture on an "as needs" basis. While all customers demand good products, the foreign owned customers were the first to demand hazard analysis and critical control point standards. This means that Food Spectrum can monitor its product quality all along the manufacturing line, and produce a product with consistent high quality.

"All our customers have their own specific requirements, says Peter Lancaster, Managing Director. "We work closely with them to understand how customers look at the market. Our Australian customers are looking towards Europe and the US, whereas our foreign owned customers are in Australia to target the Asian market. With all of them, we are re-engineering our products to meet market needs, but the requirements of the Asian market are perhaps more specific. We work with our foreign owned customer to develop new products for these markets, including assessing the economic feasibility".

Supplier respondents are keen to build alliances and reported 107 alliances with foreign-owned firms in the last three years (average of 1.91 per firm). Seventy-eight percent of these alliances were formed by suppliers who performed R&D (Box 5.8).

Those suppliers that provided indications of the non-financial benefit accruing from these alliances reported benefits of international exposure, access to projects that might otherwise not be available, and development of concepts for new product development (Box 5.9).

Box 5.9: The Distillery

The Distillery is a Canberra-based IT&T company that delivers information management solutions and is the current Telstra/MYOB Australian Small Business Owner of the Year. Its first foreign owned client was EDS Australia which had been searching world-wide for an intelligence solution for one of their customers. The Distillery gained some publicity by winning a technology award, and EDS then invited them to become one of their global solution partners under the Partnerships for Development program.

The Distillery now has four major foreign-owned clients, two of which have relationship for the Partnership for Development program. Roger Martindale, Business Liaison Manager, says "It is possible that we would have had these relationships without the Partnerships Program and certainly EDS may well have used us anyway. But overall, we think the Partnership program is brilliant – it has worked for us. We make sure it works for us. We don't sit back and wait for it to happen."

Most of The Distillery's large Australian customers are Federal Government departments and only one or two of these have the opportunity to promote The Distillery's work overseas. Those who can promote on the company's behalf are very active and are demonstrating its solutions world-wide wherever they can. Martindale notes that these Australian clients are useful as reference sites for the company's products.

Roger Martindale also says that the main impact of working for foreign-owned customers has been the ability to globalise the company much more quickly than would have been possible had it had only Australian clients. "These multinational firms are large and dealing with them can be bureaucratic, but as a result of our relationship we are about to undertake a major project for the Commonwealth Bank. EDS also enabled us to enter the global market earlier than would have been possible otherwise, by taking us to Washington for a week to present to all their government account managers. As a result, we will open an office in North America.

"The key is networking. If you can get in and get to know them and their Australian arms, you can make all sorts of things happen. For example, we were the only Australian company presenting recently at a Sun Microsystems Solution Conference in Asia. That is really because of the personal relationship we have built up with Sun Microsystems in Australia."

Acquisitions Can Also Be Mutually Beneficial

Many MNCs entered the Australian market by acquisition because it gave them ready access to a pool of staff who understood the market and also sometimes provided additional skills in R&D or marketing into Asia.

One consumer products MNC acquired an Australian firm to access its R&D expertise. The Australian operation is now one of the firm's five global R&D centres. In another case, the new parent benefited from the Australian subsidiary's knowledge of the Asian market (Box 5.10).

Box 5.10: Cryoquip

Cryoquip supplies vacuum insulated pipe-work, pumps and cryogenic vaporisers to industrial gas companies in Australia and overseas. It currently exports about 35% of turnover to Asia and to growing markets in the Middle East. Cryoquip is 73% owned by its US parent, Cryogenic Industries, following a buy-in of IWI Cryosystems in August 1999.

The majority of Cryoquip's customers in Australia are also subsidiaries of other foreign owned firms. General Manager, Mr Tim Born says "if we dealt with purely Australian-owned companies we wouldn't be here, and we also wouldn't be here if we didn't have exports."

Working with an overseas parent has been a two way street. Mr Born says the US parent has tightened the company's financial controls and job costing systems and has made some useful changes to manufacturing processes. He feels that Cryoquip can contribute to the efficiency of the new owners, in turn, by helping them to understand the Asian market and culturally-specific marketing methods for their product.

5.2 Contribution To Australia's Global Reach

Links Between Employment Levels, Exports and RHQs

The Australian operations are not a major component of their global business for the majority of respondents. However, foreign MNCs that are significant employers are likely to also be the Asia-Pacific RHQ for their firm and are also major exporters. Of the top ten employers listed (Table 5.2), six were the company's Asia-Pacific RHQ and seven were significant exporters from Australia.

Table 5.2: Respondents with a Relatively Large Share of Global Employment

Industry of MNC	Australian employment (% of global)	Features
Services company	28.5	All Australian operations are joint ventures
Services company	25.0	Asia-Pacific RHQ, exports
Resources company	16.4	Major exporter
Services company	11.1	Asia-Pacific RHQ and exports
Services company	10.0	Asia-Pacific RHQ and exports
Resources company	10.0	Asia-Pacific RHQ, exports
Technology company	7.5	Asia-Pacific RHQ, exports
Services company	5.7	Purchase established Australian businesses
Resources company	4.1	Decentralised, integrated resource developer and processor
Manufacturing company	3.9	Asia-Pacific RHQ, exports

Source: Company interviews

Significant exporters included firms in resources, technology-intensive industries, consumer products and other manufacturing. Exporters were also more likely to have moved into Australia by acquisition, reinforcing the view that their Australian subsidiaries had been targeted for purchase because of pre-existing knowledge of the Asian market. MNCs that contributed to global or regional product development for their parent firm were active exporters. Firms from the UK, Europe and other regions were also more likely to export than US firms.

RHQs are Significant But Are Subject to Change

Government policy in the past has focused on attracting RHQs to Australia because of their perceived benefits in relation to job creation. This is a short term view and is likely to be undermined by the ability of MNCs to operate “distributed” RHQs. MNCs can also locate regional functions in different Asia-Pacific cities depending on the competitive advantage of different locations. Despite an active Australian inward investment program, RHQs located in Singapore and Hong Kong outnumber those in Australia in both actual numbers and on a per capita basis.

Just over half the respondents had located an Asia-Pacific RHQ in Australia. The remainder of MNCs either did not use RHQ structures and had centralised operations in their global headquarters (mostly US respondents), or had an RHQ in an Asian country. The latter cited access to markets as the primary reason for this location. We did not ask questions about taxation, but several respondents with an Asian RHQ mentioned that Australia’s tax laws were a significant impediment in maintaining a RHQ here.

The number of staff in these RHQs ranged from one person upwards, indicating a significant range in the scale of RHQ operations. Where Australian RHQs employed significant numbers of staff, the MNCs’ other subsidiaries in the region were either smaller and/or less skilled. Firms which had chosen Australia for an RHQ did so because their Australian subsidiary had existing experience in dealing with Asia or they had difficulties in operating from Asian centres because of political instability.

RHQ structures were often complex. In some cases RHQs were distributed across several centres in order to cater for the needs and desires of staff with particular skills and who wanted to live in certain locations. Respondents were well aware of the political importance attached to placing an RHQ in Australia and it is clear that some RHQ structures are designed to meet the requirements of several governments in the region at the same time. RHQs, being primarily administrative, also are easily moved to other locations and there is always the possibility that they will be moved out of Australia in response to other factors elsewhere in Asia.

Centres of Excellence are More Likely to be Anchored in Australia

Centres of excellence are key centres that develop new products and services for the global firm, as well as for sale into the Australian market. They may be formal R&D centres but also may include non-R&D functions such as asset management and human resource development. They are distinguished from RHQs by their emphasis on technology development and back office operations rather than on administrative functions. Ten MNC respondents in banking, consumer products, other manufacturing and technology-based industries had established global or Asia-Pacific centres of excellence in Australia.

Centres of excellence may undertake R&D in their Australian operations or may contract out research to other Australian organisations, including firms, universities and the CSIRO. These centres have given the Australian subsidiary a greater “voice” in their respective global firms, as respondents with centres of excellence gave themselves a higher ranking in their influence on global product development than respondents without such centres. However, fierce competition in the global economy and significant global corporate losses for some MNCs in recent years means that the continuation of these centres cannot be taken for granted.

It is difficult to generalise with respect to the reasons why centres of excellence were established, but some factors were:

- Local expertise in particular areas.
- Large Australian subsidiary.
- High quality education system producing engineers and scientists with broad skills, able to tackle many problems.
- Low cost of tertiary trained staff compared with international norms.
- Strong R&D presence in the Australian subsidiary.
- Good IT infrastructure and relatively cheap international telecommunications.
- Research strength of outside Australian research institutions (e.g., CSIRO, universities and other research institutions).
- Particular features of the Australian market which led to a need for local adaptation which was then exported to other subsidiaries.
- Large and demanding customers, especially in telecommunications.

Clearly, centres with global and/or Asia-Pacific mandates make an important contribution to the Australian economy, since they represent a way of attracting a significant R&D presence. However, competition within MNCs to attract such centres is often fierce and other countries, often supported by government incentives, have aggressively targeted such high value-added activities.

Global and regional centres of excellence are also present in less technology intensive MNCs. One MNC with extensive manufacturing and warehouse operations in Australia has two of the firm's nine Asia-Pacific regional centres of excellence, although it has not attracted any global centres of excellence. The regional centres of excellence, however, have allowed it to employ additional staff and also to undertake limited contracting out to the CSIRO for particular trials of products.

Centres of excellence are also present in service industries. Their scope varied, but reflect such factors as the Australian subsidiary's existing expertise and the presence of IT skills and relatively cheap and reliable telecommunications.

Sales to MNCs Provide Market Opportunities for Australian Suppliers'

Australian suppliers' relationships with MNCs in Australia often opened up other opportunities overseas. Many MNCs not only acted as distributors for Australian suppliers but introduced their Australian suppliers to other customers overseas. These customers were mostly sibling firms to the Australian MNC, but sometimes were unrelated firms including customers of the MNC itself. A number of service industry MNCs take their local suppliers with them on overseas projects.

Training and certification by MNCs often enhanced the ability of suppliers to obtain additional business and exports, to other subsidiaries of the MNC or to other firms overseas (Box 5.11). Consumer products respondents in particular emphasised the importance of training and certification of suppliers in order to ensure both product quality and meeting of service targets (e.g. on-time delivery and quality of supply). These respondents saw their linkages with suppliers as long-term in nature, some entering into 5-10 year supply agreements in order to ensure the relationship was maintained.

Box 5.11: Cryoquip

Cryoquip, a manufacturer, has been successful in developing new skills by working with its foreign-owned customers. It is finding that Australia is becoming more competitive because of both the exchange rate and the broad skills of our engineers. It recently designed and developed some equipment for freezing fish for its largest foreign-owned customer. General Manager, Tim Born, says "Cryoquip developed a close relationship with both companies and was able to keep everyone informed about the project." This enabled the firm to increase its own skill base and to add to its competitive advantage.

Cryoquip's major customer is very supportive. This firm also owns a number of subsidiaries in Asia and Cryoquip is able to use its relationship with the Australian subsidiary as a reference to help it access these Asian markets. Cryoquip is also providing informal training and mentoring to the young engineers in many of its foreign-owned customers. Providing formal training is one way Cryoquip can increase the value of its service to its foreign-owned customers.

There were also examples of MNC respondents accrediting suppliers to work for subsidiaries in other regions, thus opening new markets (Box 5.12).

Box 5.12: Food Spectrum

Food Spectrum Pty Ltd, based in Brisbane, is a supplier of "functional food" ingredients to a number of large Australian firms and foreign owned firms operating in Australia. It has a philosophy of keeping ahead of the pack and many years ago became the first Australian food manufacturer to be certified for ISO9001, a service quality standard accredited at the national level.

The company obtained its first foreign owned customer over 20 years ago and is now accredited to this supplier for the Asia Pacific region. This allows it to export its products to Asian countries and to supply its multinational customer through the Asia Pacific. This has helped its credibility in the wider market and enabled it to gain access to other customers. Managing Director Peter Lancaster says "Our credibility facilitates access. However, we have to work well with all of our customers. If we don't work well with them we don't have any business, it's as simple as that."

Australia Can Be A Testing Ground for E-Commerce

Many MNCs are experimenting with e-commerce and some have used Australia as a testing ground for roll-out of e-commerce systems. This provides an opportunity to gain access to new systems ahead of other world regions. Australian firms that are involved in these test systems can then export their skills when the full systems are implemented in head offices elsewhere.

Several firms mentioned that their global headquarters are currently either investigating or implementing global e-commerce initiatives and that they had been selected by headquarters to be part of the global e-commerce trials within their firms, partly because Australia was perceived to be an early adopter of IT. One company had selected Sydney as the Asia-Pacific RHQ for its global e-commerce system over Singapore and Kuala Lumpur. The reasons were that Australia was a relatively cheap supplier, had good quality of people with a strong skill base and reliable IT systems.

Australia has the opportunity to be a testing ground for e-commerce roll-outs by MNCs. Although use of e-commerce was variable there were several MNCs had decided to test particular e-commerce initiatives here because of both our market size and rapid uptake of technology.

In general, most current e-commerce systems are domestically oriented and MNCs did not believe e-commerce helped them to take advantage of global market opportunities, or bid more easily for global and Asia-Pacific regional charters within their global firm. A minority, however, did see that they would be able to bid more easily for global market opportunities or bid for regional or global charters at least in three years time. Heavy users of e-commerce also tended to have significantly stronger linkages with Australian firms and most predicted that e-commerce would be more important in three years time.

Several firms pointed out that the early e-commerce initiatives were too technology focused and had given insufficient attention to the business case. These and other firms were regularly reviewing e-commerce initiatives and were willing to expand their involvement in e-commerce when the "right" business model is developed. A number of respondents were involved in e-commerce discussions within their respective industries and tended to see their adoption of e-commerce in the broader industry context and want to avoid the inefficiencies associated with competing e-commerce portals in the industry.

5.3 Contributions To Skills and Knowledge

Foreign MNCs Access Global Knowledge Flows Through Parent Firms

Australia needs to be plugged into global knowledge networks if it is to become a key player in the global economy. The ability of Australia to obtain access to these networks depends intrinsically on the role of the foreign subsidiary in the larger structure of the MNC world-wide. Clearly, not all foreign subsidiaries of multinationals are equally placed to access knowledge held by corporate headquarters and it is in headquarters' interests to restrict the spread of some information given the difficulty of transferring knowledge and its value to both the firm and its competitors. If the headquarters of the MNC does not see Australia as an important affiliate, it is unlikely to make efforts to transfer information here.

Foreign MNCs can use their links with parent and sibling firms to access global knowledge that would otherwise be inaccessible. Australia’s GDP is only a small percentage of total world economic activity and it would be impossible for Australians to live at their current standard of living without access to this knowledge, much of which is held by global MNCs. MNC respondents in technology-intensive industries emphasised the large size of their R&D budget in the global company and the difficulty for smaller companies to match such expertise. Mergers and takeovers concentrate global knowledge even further, particularly in telecommunications, pharmaceuticals and aerospace, and economies of scale and scope are high.

MNCs which undertake R&D in Australia believe that they make a higher contribution to their firm’s global knowledge flows than MNCs which did not perform R&D in Australia. R&D performers also gave themselves higher a ranking in relation to the ease with which they access knowledge held by their parent firm.

Key personal contacts were often essential in finding out what knowledge was available and where it was. Despite the prevalence of electronic communications, personal informal networks within MNCs remain important. These informal networks must be reinforced by face to face contact and necessitate frequent trips back to head office and to sister firms.

As noted earlier, it was beyond our resources to interview respondents in the headquarters countries. It is likely that Australian respondents may overemphasise their role in knowledge flows in the global firm. A further problem relates to the nature of knowledge held by global firms. It was not possible in the study to explore in detail the different components of knowledge. A significant amount of knowledge in MNCs is tacit in nature, much of which is held by individuals in the corporate headquarters or in major R&D units. Getting this knowledge requires constant effort and the maintenance of personal relationships between Australian MNC staff and their headquarters’ counterparts.

Knowledge Linkages Benefit Australian Suppliers

A major issue for Australia is the access by Australian-based firms to knowledge held by MNCs. If Australian firms can access this knowledge then this helps them to gain access to global know-how and links them in to global knowledge flows.

The issues are not clear-cut, since the intellectual property held by an MNC is its core competitive advantage. A number of MNCs, especially in technology-intensive industries, emphasised that they were very careful not to allow this knowledge to be accessed by outside firms, either in Australia or globally. Small Australian suppliers stand to benefit the most when their MNC customers transfer know how and formal knowledge and help them to improve product and service quality and also contribute to adoption of new management skills (Box 5.13).

Another important but under-utilised area of knowledge exchange is joint R&D with universities and research organisations. Only two MNCs reported alliances with Australian research institutions. Increasing such alliances, perhaps in conjunction with establishment of centres of excellence, will increase the embeddedness of MNCs in the economy and will create further links with the national system of innovation.

Knowledge exchanges also take place in other ways, such as industry associations. A number of firms reported that significant knowledge exchange on such issues as e-commerce took place in their respective industry associations.

Box 5.13: Denton Bocking Consulting

Mr Denton Bocking is a consultant working in the Defence industry. He helps multinational firms to meet the Australian Government's industry development requirements for major Defence contracts. His foreign-owned clients include firms which are already well established in Australia and are seeking to expand their presence by tendering for major Government contracts, as well as firms that are investigating moving into the Australian market. Mr Bocking recently helped a firm in the former category to successfully tender for a major Defence contract. As a result, this firm will be establishing expanded offices in Australia, recruiting more locals and working with Australian firms.

He says that working with foreign-owned companies has provided an interesting insight into the management methods of these firms. "Although I received no formal training from them, I was able to learn about different business practices", he says. Mr Bocking also says that foreign owned firms expect him to be able to deliver to their requirements. Australian firms with which he works are more interested in learning from him and in developing project plans together. For this reason, he believes there has been more transfer of knowledge from his firm to his Australian customers than to the overseas firms, although both have become more aware of industry development requirements.

MNCs Provides Australian Staff with International Experience

MNCs provide their staff with opportunities for international experience. This increases the general skill level of Australian staff, exposes them to new management and industry ideas, and provides experience in a range of business structures and in different cultures.

Many respondents had numerous staff on either short- or long-term international transfers. The length of time staff spent overseas ranged from several weeks to three or four years. Once senior staff had spent a significant time overseas, however, respondents found it difficult to place them back in the Australian operation, since there were not sufficient positions at a senior level available for them.

Several firms with active global staff transfer programs pointed out that Australians were in high demand as they are used to multi-tasking and are more likely to adapt to working in a diverse range of other countries. Australians were particularly valued by some firms whose national culture favoured consensus, which made it difficult for them to sell into more aggressive cultures based on individuality. These characteristics also meant that Australian country managers were more inclined to fight for a broader role for their subsidiary, and gave Australian subsidiaries more prominence than relative economic size warrants. The contribution of such individuals needs to be more widely recognised and utilised.

Staff Training Is Well Defined at All Levels

Many MNCs had well-developed staff training programs that operated at all levels of the firm. These programs, sometimes developed in alliances with local TAFEs, contribute to the attractiveness of foreign MNCs to local employees. With good training Australian technical and management staff may be able to support large projects overseas. Many management staff may be rotated through different business units and thus gained exposure to a wide range of experiences.

Firms that gave strong weighting to training had structured personal development plans for each employee, with skill gaps identified. They emphasised competency development and focused on leadership capabilities. Training at all levels of staff was a core issue in their overall corporate planning and several respondents mentioned it as a factor contributing to their lower-than-average staff turnover.

A wide range of training takes place for senior managers. Many firms have some form of in-house training, whether it be offered in Australia or overseas. While a number of firms encourage their staff to undertake MBAs, the majority use in-house tailored courses. Several firms pointed out that their global organisation had a close relationship with major US (e.g., Harvard and Stanford) or European (e.g., IMD) universities or management institutes. Senior staff from the Australian subsidiary regularly attended such programs.

The presence of a multicultural workforce is sometimes mentioned as a significant advantage for Australia. Surprisingly, only one firm mentioned this issue as a factor. The firm mentioned that the wide range of language and cultural groups in their workforce gave them strengths in terms of designing equipment for their culture or seeing other ways of doing things that might be more acceptable to people from other cultures. Its staff spoke all the Asian languages and these people spoke to inquirers from Asia in its seven day, twenty-four hour call centre.

5.4 Balance of Positive and Negative Impacts

We posed the question in the report’s title as to whether MNCs are friends or foes to Australia. Overall, we argue that the impacts of MNCs are positive, but there are a number of negative implications as well.

Negative Impacts

While Australia would like to encourage high value-added and knowledge-intensive activities, it is important to recognise that its relatively small size and distance from global and Asia-Pacific markets makes it unlikely that most foreign MNCs will use Australia as a major hub for knowledge-intensive and value-adding activities. There are several findings from the study that confirm that many foreign MNCs have limited links to Australian firms and a restricted impact beyond direct employment and investment in infrastructure.

As a general comment it is clear that access to the Australian market is the dominant reason for market entry, and as a result, many MNCs have established only sales and marketing offices. These provide few benefits for Australia in terms of R&D, supplier linkages and access to global knowledge. However, such operations do provide Australian consumers with access to the products and services sold by these firms, such as computers, heavy machinery, computer software and management expertise. Given that Australian consumers want to consume such products and services, Australian sales and marketing offices of MNCs facilitate such transactions.

The second indication that many foreign MNCs may provide limited benefit to Australia is that, while R&D by some MNCs is significant, it is focused on product modification for the Australian market. This indicates that Australian subsidiaries play a relatively minor role in global product development, a finding which explains their lack of involvement in initiatives such as CRCs and limited links with universities and the CSIRO. This is of concern as external R&D links would be expected to be a major conduit for access to the intellectual property held by MNCs. The current policies of the Federal Government encourage MNCs to set up activities here, but fall short of prescribing these. Thus there is no external incentive to develop these valuable links into the economy.

The importance of tacit knowledge in Silicon Valley is often referred to in the research literature. Foreign firms often place R&D units in Silicon Valley in order to access the tacit knowledge held there. Firms that are not located in Silicon Valley and that are not significant players are out of the knowledge loop. The danger for Australia is that unless significant R&D expertise is held in Australia, it will be excluded from key knowledge flows, particularly in the rapidly developing industries such as IT&T and banking and finance.

The third indicator of limited benefit is the lack of manufacturing capacity. Manufacturing is traditionally seen as one of the high-value activities of MNCs, along with R&D. Successive governments have promoted establishment of manufacturing because of its tangible nature and the opportunities to link with SME suppliers. Both the Partnerships for Development Program and the Pharmaceutical Investment Incentive Program encourage a range of value added activities plus interaction with Australian firms.[29] By manufacturing here MNCs replace imported high-value goods with domestically-produced goods, help our balance of trade and strengthen domestic industrial linkages and local clusters.

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[29] Under PIIP the commitments required are either "production value added" or R&D (see http://www.isr.gov.au/industry/pharmacy/piip/supguide2.doc). Both production value added and R&D may include contracts to third parties. The Partnerships program is not prescriptive but its objective is to build Australia's capability in global ICT industries. The guidelines recognise R&D, strategic investment in facilities, exports, skills development and RHQs and also provide for facilitation of third party export (see www.dcita.gov.au)

Recently, however, Australia, along with other relatively high cost economies, has suffered from "hollowing out" of its manufacturing. Many foreign MNCs which manufactured in Australia have moved these manufacturing operations offshore in order to take advantage of lower cost locations in Asia and elsewhere. Following this trend, many of the respondent firms, including those in technology-based sectors, have reduced their Australian manufacturing and are now importing the majority of their products for sale into the Australian market. The high value added R&D and design elements may remain, but this only applies when those functions are already in-country.

Another likely factor was, with one or two notable exceptions in manufacturing, the limited clustering of suppliers around these foreign firms with local R&D or design activities. Most foreign MNCs drew suppliers from around Australia and many imported their key inputs. The decision regarding location of headquarters in Australia was dominated by good transport and access to sufficient urban infrastructure, rather than access to specialised skills or facilities. Thus these MNCs are having little effect on the development of clusters of suppliers and of expertise, particularly in advanced technologies. The implication here is that Australian firms are not gaining access to the informal networks that surround such technology clusters in other major economies and that there is little opportunity for the informal learning that takes place in these clusters elsewhere.

Variable Impacts

Strategic alliances between MNCs and Australian firms were beneficial where they occurred, but the combination of low levels of R&D and limited manufacturing has limited the number of these. The exceptions are technology-based companies developing products with research institutions, and consumer products firms streamlining supply chain logistics in concert with customers and suppliers.

On the whole, it is likely that Australian companies are not that important for MNCs. They do not have much technology that the MNCs need and the Australian market is so small that local alliances are rarely required in order to gain market access. The exception is where Australian firms have expertise in Asia, and in these cases, the MNC may acquire the firm in order to internalise this expertise.

The impact of e-commerce on relationships with suppliers and customers also remains unclear. At present MNCs' focus is on finding the right business model and on domestic experimentation with e-commerce projects. When MNCs do move into e-commerce, there could be a significant freezing out of Australian firms if the e-commerce systems encourage global, rather than local, acquisitions. SMEs need to use the intervening time to establish themselves as good quality suppliers to MNCs and to ensure that they can compete with overseas rivals in key areas.

Positive Impacts

In assessing the positive impacts of MNCs in Australia, we have been seeking to move beyond the simple measure of employment. Thus we have been focussing on the intangible benefits offered by informal knowledge links, alliances, training and relationships along the value chain.

While the preceding section shows that some of these are limited in scope and value, there are a number of characteristics of the interaction of some MNCs with the economy that are definitely beneficial. On the whole, we believe that these positive effects outweigh the negative in our sample of MNCs.

The most significant finding has been that foreign MNCs which have a more positive impact in Australia have a significant role to play in product and service development at a regional or global level for their firm. This can take place through RHQs, but a more significant and long term benefit is obtained through centres of excellence operating here.

While many firms had RHQs in Australia, there were a variety of structures and the employment impacts ranged from minimal to significant. It follows that the mere fact of having an RHQ in Australia does not necessarily lead to great employment benefits. However, firms with RHQs were more likely to export and, if the RHQ was responsible for Asia (rather than just Australia, New Zealand and the Pacific), employment impacts were higher.

Centres of excellence, where they existed, had a much more significant role than RHQs as they were integral to the global success of the foreign MNC. Centres of excellence require substantial investment and, once established, may be less subject to arbitrary decisions regarding their location.

They may also have greater links with the national innovation system and, through their own links to global R&D centres, may link Australia's research groups with global expertise. These links may in turn help the foreign subsidiary bid for further regional or global mandates. Their continuity, however, cannot be guaranteed in a global environment that is increasingly competitive and we must continue to be an innovative and cost-efficient country for MNCs to continue to locate centres of excellence in Australia.

Benefits also accrue when the foreign MNC has sufficient access to internal knowledge flows. Firms performing R&D consistently ranked themselves more highly in accessing global knowledge from within their company.

While many MNCs maintained that they had easy access to such knowledge in their company, it was clear that considerable effort is required to maintain the channels of communication. Senior executives who keep the lines of communication open can not only gain access to formal and informal knowledge, they can influence the global direction of the firm and argue effectively for the allocation of resources and responsibility to the Australia subsidiary.

The third major area of benefit is transfer of knowledge and expertise from foreign MNCs to Australian suppliers. Foreign MNCs that are key players in their internal global network, or which rely heavily on Australian suppliers and customers for competitive advantage, may share information with these firms and thus pass on expertise, technology and tacit knowledge which in turn increases suppliers' own capacities.

Overall, MNC respondents reported close relationships with their suppliers and are demanding customers. They therefore have significant potential to increase the quality of their suppliers, an effect that will have flow-on benefits for other firms for which the suppliers also work.

It also makes sense for suppliers to try to maximise this knowledge transfer as it provides access to a global network that would otherwise unavailable. While some suppliers reported difficulties in dealing with MNCs, those that had persisted in developing strong relationships reported wide benefits including export success, higher quality and service standards, involvement in R&D, secondments and training. Thus, the relationships in Australia between suppliers and MNCs have long term benefits for Australian exports and company growth.

The fourth major benefit of foreign MNCs is the training and skill development they provide to their Australian staff. International staff transfers are a very important way for Australians to gain international experience and broaden their skills. Many younger people also perceive significant advantages in working for an MNC, since such jobs provide them with the opportunity for international travel and to gain higher salaries than is possible in Australia.

While international staff transfers benefit individuals and MNCs, it is important for Australia to "capture" the skills and knowledge held by individuals with international experience. A key issue is to ensure that rapid economic growth takes place in Australia, which in turn opens up job opportunities in highly-skilled areas for expatriate Australians. It is likely that such expatriates may have to change jobs in order to come back to Australia.

Many MNC respondents also had significant staff training programs. While recording these was not a focus of the study, it appears that these, coupled with the opportunity for overseas work, are an attractive aspect of employment. Respondents also emphasised the crucial importance of Asians being trained in Australia and argued that these former students now working in their home country were sympathetic to Australia and were on the "Western wavelength" in business negotiations.

Finally, many respondents used Australia as a test market for new products, advertising campaigns, e-commerce initiatives and new IT support systems. It appears we have an advantage because of our relative wealth and discrete size, as well as for our willingness to take up new technology. Australia can use this to its advantage as our involvement in these initiatives can conceivably put us at the front of technology roll-outs, thus increasing our technical capacity.

Other Factors

There were some significant differences between firms by nationality, management type and mode of entry. These three characteristics, however, are not unrelated and are influenced by the sample selection. Further analysis with a larger sample would be required to be definitive about these differences.

Nevertheless the variations do show that it is dangerous to take a "one size fits all" approach to promoting inward investment. When targeting firms for inward investment, government agencies need to take care to understand the firm's internal working structure so that potential impacts on the Australian economy can be modelled.

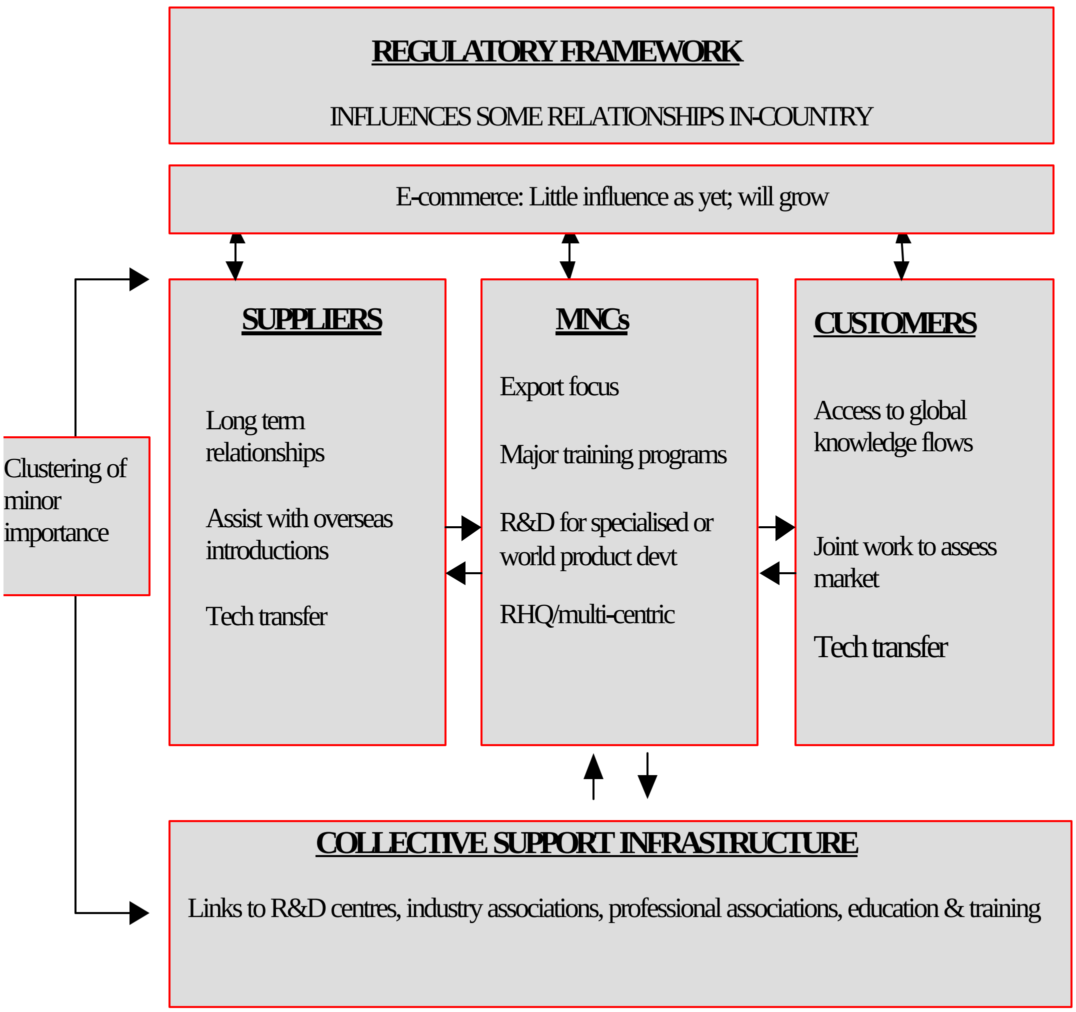
As a group, US respondents were larger and had a bigger employment impact, but were less likely to have RHQ structures that provided the local subsidiary with more autonomy and greater links with the local economy. They were also less likely than respondents from UK/Europe to export and to undertake R&D. Overall it appeared that UK/Europe respondents were more outward looking and their subsidiaries had a greater contribution to make to global operations.

There are also significant differences between MNCs according to their contribution to the regional or global product development of their firm as a whole. Employment was highest in firms that had only a local mandate but these firms were unlikely to be RHQs and also had less autonomy. MNCs that had a regional or global mandate were much more likely to export, work with customers, transfer technology to customers and be in control of product development than local mandate firms. Thus, they are likely to have a greater positive impact on the economy as a whole.

5.5 Conclusions

The following Figure 5.1 captures graphically the net positive impact of foreign MNC's in Australia. Overall, the study supports the conclusion that many foreign MNCs in Australia are "friends", in that their operations contribute not only to employment but also to the strengthening of Australia's capabilities and links with global markets and knowledge.

Figure 5.1: Characteristics of MNCs with Positive Economic Impact



In any event, Australia needs to engage with MNCs more actively if it is to obtain the most benefit from their Australian operations.

The next Chapter discusses the implications of these findings for Australia.

6 Implications

6.1 Role of MNCs in the Global and Australian Economy

Much of the current debate over globalisation is poorly argued. Many people assume that we already operate in a highly globalised world. This is far from the truth. Many countries (including Africa, South Asia, Central Asia and inland China) are weakly connected to the global economy and show few signs of becoming more tightly integrated in terms of international trade and foreign investment. A key problem for most of the developing world is not the presence of foreign MNCs, but their absence.[30] Australia has taken advantage in the past of MNCs' unwillingness to accept the political and economic risks of operating in many developing countries and has targeted inward investment from firms whose main interest is in Asia but which perceive an Asian presence as being too risky.

While Australia is globally well connected, it also faces a problem of limited interest on the part of foreign MNCs. While inwards investment is rising at a modest rate, it is crucial for Australia to access new technologies and management know-how in order to be internationally competitive. In particular, it is essential for Australia to be able to access knowledge-intensive activities and build up local expertise in these areas. A "go-it-alone" strategy is not an option if Australians are to maintain their current high standard of living.

We have concentrated in this report on the role of foreign MNCs and have not considered the role of large Australian firms. We are not suggesting that government policy should favour foreign firms, but that foreign MNCs' existing and potential contributions to the Australian economy need to be recognised and fostered by government. There must also be mechanisms for maximising the linkages between these firms and indigenous Australian SMEs.

6.2 Refocus Investment Attraction

A key objective of government policy with respect to the role of MNCs in Australia must be to encourage them to move beyond sales and marketing offices to operations which are linked into the local economy and have flow-on benefits to Australian firms, research institutions and skills base. In order to gain maximum benefit from MNC operations in Australia, these firms must be encouraged to increase the size and depth of knowledge-intensive activities and to form strong links with local organisations in the supply chain.

Much of the debate over industry policy in Australia has focused on whether policy makers should "pick winners" versus promoting a free market approach. We do not propose to discuss these broader policy issues here, but it appears that Federal and State industry policy initiatives lag significantly behind more innovative and focused approaches in such countries as Ireland, Belgium and Singapore. While Singapore, for example, has developed a global "brand",[31] Australia has been unable to develop a coherent global image in knowledge-intensive industries. Even in major high-tech trade exhibitions, Australia's image is based on tourism motifs.[32] Furthermore, any

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[30] Only ten countries account for 73% of inward FDI flows and 30 countries account for 93%. UNCTAD (2001). World Investment Report 2001: Promoting Linkages. Geneva, UNCTAD.

[31] "The Intelligent Island"

[32] For example at BIO2001 in San Diego in June 2001, the Australian Pavilion promoted itself as "Destination Australia", complete with Aboriginal dot motifs as part of the stand design.

marketing strategy has to be consistent and not shifted back and forth as different governments are elected.

We argue that, in order to leverage benefits from MNCs, Australia must move beyond the current trend of promoting "natural" benefits such as Asian time zone or English language, as these do not provide cogent reasons for MNCs to locate in Australia rather than in Singapore or Hong Kong. Australia needs to build on its existing strengths and then promote these, as is appropriate.

On the supply side, research funding should encourage universities and the CSIRO to undertake fundamental or pre-competitive research in designated areas of national research expertise. Similarly, CRCs need to be focused on these areas of R&D expertise and must have MNC partners as well as Australian firms and research institutions.

Recently a review of trade and investment promotion activities recommended that the functions of Austrade, Invest Australia, the National Office of the Information Economy and others be combined into a single agency.[33] The review, which at the time of writing was not publicly available, is reported to recommend a "whole of government" approach to overseas marketing, in order to limit duplication of efforts by both the Federal and State governments.

We would argue that, while avoidance of administrative duplication is a positive move, the focus should be on promoting national business, cultural and other characteristics that offer real, sector-specific business benefits for incoming firms.

A possible model is AXISS which, while part of Federal Treasury, is a specialist agency with expertise in the financial services sector. Financial services is the third largest sector of the Australian economy, contributes 8% of GDP and employs 350,000 people. AXISS develops coherent marketing campaigns to target MNCs interested in taking advantage of these strengths in Australia. It has only 12 staff but they have wide private sector experience and can add value through a detailed understanding of the financial services sector.

Such investment attraction efforts should be supported by a thorough understanding of what makes Australia an attractive location for firms from each sector where we have comparative advantages. Those involved in investment attraction should have sector-specific expertise and should target inward investment that will result in strong economic linkages and establishment of centres of excellence that will embed into the economy.

The key sectors where a focused effort may provide dividends include ICT, pharmaceuticals/biotechnology, food, education and health.

Investment attraction agencies need to be commercially oriented, have limited public service input and report to senior levels of government. Furthermore, they should have a strong intelligence function, with a particular focus on understanding strategic directions in the Australian industry and considering threats and opportunities facing it. While such groups should also aim to develop Australian firms' international orientation, a key focus must be on attracting knowledge-intensive activities from foreign MNCs.

[33] Lewis, Steve (2001): Australia Inc – the New Blueprint. Australian Financial Review, 14 August 2001, pp1 and 4.

6.3 Leverage Australia's Business Culture Strengths

It is difficult to discuss the implications of Australia's business culture for MNCs, because it is inevitably an intangible area. A strong and innovative business culture has potential, however, to enhance Australia's international competitiveness. Although we have identified a number of strengths in Australia's business culture, it is clearly an area which needs far more systematic research to enable Australia to come to grips with these as potential advantages.

Australia is known as a rapid adopter of new technology and this was a factor for some MNCs including Australia as a trial country in the roll-out of new products and services. There are opportunities for Australia to promote itself as a location for testing new products and services. This is an area where the Federal Government can play a role. It also has the added advantage of providing early access to new technologies and in enhancing the Australian market's global awareness.

MNCs need to be encouraged to test products and services here. Case studies could highlight where MNCs have successfully used Australia for this purpose and should also help them to locate the necessary expertise and local contacts for such rollouts to be trialed.

Another intangible issue, which various MNC respondents discussed, was the willingness of Australian staff to question decisions made by headquarters and to strongly argue their position. Such attitudes may not endear Australian staff to headquarters, although several respondents pointed out that their headquarters personnel had come to acknowledge that such a questioning attitude was valuable for the company. These respondents also contrasted Australians' willingness to question authority with attitudes of Asian staff, who were less likely to query headquarters' decisions. Furthermore, one respondent commented that his firm used Australian staff in international negotiations on technology matters, because of their willingness to argue a position with people they didn't know well.

A number of MNC respondents also reported that Australian staff were able to "connect" more easily with people from other countries in both Asia and US/Europe, and that Australians can relate to Asians more easily than can Europeans and Americans. On the other hand, Australians are sometimes able to "poach" business away from MNC subsidiaries in Asia, because of their ability to communicate easily with major clients in the US.

Australians' ability to connect with US/European firms is apparent in parts of the banking and finance industry, but is likely to be important in other areas as well. The ability to establish and maintain personal connections within MNCs is important, since small subsidiaries are often "forgotten" in large firms.

All this means that Australia must work to develop and maintain a dual business culture. On the one hand, it needs global business cultural linkages with the major industrialised countries of North America and Europe. At the same time, it needs to forge regional business cultural linkages within the Asia-Pacific. These linkages can be promoted by industry associations, which can assist their members to understand overseas business cultures, as well as governments, and can continue to promote outward looking Australian industries.

6.4 Create Regional and Global Centres of Excellence

Australia's business enterprise R&D performance in the past decade has been poor, despite measures introduced to encourage more R&D by Australian firms and increased links between firms and public sector R&D institutions. There is potential to significantly increase business enterprise R&D by encouraging more R&D by foreign MNCs.

A major requirement is for policies that will expand the number and scope of MNCs' centres of excellence in Australia. Centres of excellence have either a global or regional mandate for particular areas of technology, products or services. They give the Australian-based subsidiary a level of international recognition within the global MNC, by enhancing its access to the global knowledge held in the MNC and also by contributing to the knowledge held by the global firm. Australia's position in global MNCs will continue to be dominated by sales and marketing outlets, unless it can attract a major presence in MNCs' centres of excellence.

Centres of excellence are particularly relevant in technology-based and manufacturing sectors but are also found in service sectors. Such centres are likely to forge longer-term links with other institutions in the Australian economy and are less likely to move in response to perceived political influences. In particular, centres of excellence in technology-intensive MNCs may be located to take advantage of local strengths in skilled labour, independent research centres (universities and CSIRO) or clusters of local firms and thus help build Australia's local strengths.

Governments need to focus on expanding the number and significance of MNC centres of excellence, rather than on attracting RHQs. These policies must go hand in hand with complementary policies that continue to boost business enterprise R&D, business management skills, improved product and service quality and greater links between industry and public sector research institutions.

In addition to supporting centres of excellence, the Federal and State governments should support Australian-based CEOs wishing to expand the range of products and services of their Australian operations, establish global or Asia Pacific centres of excellence or build and maintain product mandates. They should also help these CEOs argue against closure of Australian operations. In the past, few government departments have had a deep enough understanding of industries to be able to provide support. Firms interviewed for this and other projects have pointed out that Federal and State government departments usually have not known that particular activities were under threat until the firm has actually announced that it is to close the Australian operations.

Clearly, this policy needs to be handled sensitively, since many of these decisions are commercially confidential, but a number of Federal and State government departments are already providing such support without breaking commercial confidentiality.

6.5 Draw on MNCs for New Skills and Competencies

Training and skill development of employees is a central issue for Australia in its shift into a knowledge-based economy. These issues need to be considered in a much broader context than can be undertaken in this report, but it is clear that MNCs play a significant role in exposing Australians to global training and skill development.

The Australian market is competitive in many areas. Australian employees are adaptable and are suitable for working in the MNCs' international operations. Individuals who can survive in Australia's competitive markets develop skills that stand them in good stead in other countries. As a result, many of these firms offer their Australian employees overseas jobs in their global organisations.

A significant number of Australian expatriates are working for MNCs and other firms in a wide range of industries. These people represent a valuable resource as they are often sympathetic to developments taking place in Australia or have useful industry contacts in their new countries that would facilitate the globalisation of Australia's economy.

A number of respondents commented that it was difficult to attract expatriates back to Australia, either because of a lack of appropriate jobs in Australia for highly skilled individuals, or because of tax issues relating to treatment of expatriates' superannuation etc. While rapid economic growth and an internationally orientated economy will enhance the growth of job opportunities for these expatriates, Australia could do more to make it more attractive for expatriates to help to build Australian firms. Australia could also learn from the experience of countries such as Taiwan, Singapore, South Korea and India, all of which have targeted the skills, personal networks and capital of their nationals located in the US (particularly in Silicon Valley) and elsewhere.

Both companies themselves and the Commonwealth Government should build networks with overseas expatriates to take advantage of their expertise and overseas "local knowledge" of markets, regulations and the like to brief Government and enterprises. This will contribute to developing a more globally aware and oriented Australian economy and will also create communication channels to assist expatriates' return to Australia should they wish to do so.

6.6 Capitalise on MNCs as Demanding Customers and Standard Setters

Australia has suffered by not having large and demanding customers that "pull" suppliers into innovative products and services. In the past, Telstra has played this role in telecommunications and a number of centres of excellence in technology-related products and services were established as a result of Telstra's past dominance. It is likely that new opportunities exist in banking, retail and other areas for large customers to create a demand for innovative ICT-based services, which will lead MNCs to build up their expertise in Australia and also link in with Australian firms.

MNCs are more likely to insist on product and service certification from their suppliers and many respondents in the MNC survey pointed out that they form long-term partnerships or alliances with their major suppliers. These MNC-supplier alliances or partnerships benefit both sides, but a major benefit for the Australian suppliers is that they are in a better position to gain other business, whether in Australia or overseas, as a result of their sales to MNCs.

Australian suppliers need to recognise the long-term benefits from gaining MNCs as customers and aggressively seek this business, even though the short-term costs of product and service certification may be high. Suppliers should target MNCs which have considerable autonomy in their host country operations and which are receptive to long term contracts that engender close working relationships. Suppliers must learn to work at all levels of the MNC firm in order to maximise the chances of lead-through contracts with overseas subsidiaries of the same firm, significant technology transfer and adoption of new business practices which increase the supplier's general capability in its sector.

Suppliers may find it difficult to achieve these goals alone. As with most areas of endeavour, there will be a few leaders, a significant band of "fast followers" and a much larger group of firms that adopt new methods and management practices more slowly. Industry associations have a significant role to play in encouraging their SME members to work successfully with MNCs and in identifying ways to gain intangible benefits from these relationships.

Industry associations with significant numbers of SME members could facilitate this process by developing support programs, mentoring schemes, training on quality improvement and innovation, and by publicising the benefits to members of successful SME-MNC relationships.

Foreign MNCs themselves can help to build strengths among local suppliers. Active development of SME suppliers helps the MNC to meet the needs of its own customers and also can reduce costs if a local source is found for a high value input. With the exception of in-house technology sourced from the parent, the main reason that respondent MNCs used overseas suppliers was that they could not find Australian-based suppliers that offered the quality goods and services they needed. By seeking out and developing Australian suppliers, foreign MNCs can both improve their local supply chain and obtain more bargaining power with parent firms. Supplier development programs should contain components which target both formal knowledge transfer (licensing of product designs, quality systems) and transfer of tacit skills (technical consultations, informal feedback, secondments).

6.7 Conclusions

The major aim of this study was to develop a model for evaluating the contributions of foreign MNCs to the Australian economy, and to use this to evaluate the positive and negative impacts that MNCs' operations have in the Australian economy. The main focus was on a range of qualitative factors which link MNCs to Australian organisations. A key challenge for Australia is to determine how to use these linkages to leverage wider benefits in areas such as technology transfer, product and service quality, skills development and access to intangible knowledge flows.

The study has shown that there are both advantages and disadvantages of MNCs' operations here. On the negative side, MNCs may have few linkages to the Australian economy and may be directed to a large extent by headquarters that are mainly focused on local sales. MNCs may be reducing their manufacturing activities in Australia and, as a result, reducing links with local suppliers. There is little evidence of clustering and this also limits the opportunity for tacit knowledge transfer between different players in the supply chain. In addition, there are a number of areas where the type of impact has been more difficult to quantify. These include the types of strategic alliances and the impact of e-commerce.

Treating MNCs as foes, however, is not helpful in the longer term. Australia has been distracted by arguments about branch plant economies, and the media has often focused on the potential loss of jobs or "Australianness" when an Australian firm is purchased by a foreign owned company. We must set aside these parochial considerations and must make the most of the positive impacts of MNCs operating in Australia. In this way we can build a more global Australian economy that has access to global knowledge and skills and contributes to global product and service development.

Foreign MNCs which have built up local research, management or export expertise, and which have company structures that enable the Australian subsidiary to influence regional or global strategy, can benefit Australia and may be strongly embedded here.

The Australian organisations with which they work have the opportunity to improve their own standards, acquire intangible and tangible knowledge, and use their MNC relationships to access global markets.

Australia must work to increase these types of relationships in order to maximise benefits of MNC operations here. It can do this by refocussing investment attraction programs, leveraging and building the strengths of our business culture, encouraging creation of centres of excellence and capitalising on MNCs as demanding customers.

Australia has achieved a very good economic growth rate over the past decade and it has prospered despite the Asian economic crisis and the looming global downturn in the latter part of 2001. Despite these successes, it is also clear that Australia has done relatively poorly in knowledge-intensive areas of the economy. In particular, we must develop information industries, health and biotechnology and advanced manufacturing if we are to be creators of new goods and services. It is clear that the role of foreign MNCs is critical, because no country is able to keep abreast of all areas of knowledge. As MNCs play a major role in our economy, it is essential that we develop focused strategies to benefit from their presence. There are lessons for both government and industry.

Local industry development policies must make our firms and research institutions relevant to foreign MNCs. This is particularly important in an era of increased concentration of economic activity in the key economies of the USA, Europe and Japan. Not only must we attract foreign MNCs for their jobs and money, we must attract them with the explicit purpose of transferring intangible knowledge and skills to Australian firms by a number of conduits. These include our research institutions, suppliers and customers, and training institutions. These links will then enable further building of our R&D capacity, global management expertise and export propensity and will also help turn around current public concern about the operation of MNCs in Australia.

These "global" policies must make Australia more relevant to global MNCs, whether this be creating a stronger global "brand" which emphasises R&D and not simply "sun and sand", or in supporting the activities of local CEOs bidding for global and Asia-Pacific mandates.

Although working with foreign MNCs may not be easy, many firms that have done so successfully have used these relationships as a springboard to enter global markets and to build domestic capacity. The benefits of this transition are long term. Australian firms, working alone, through their industry associations or with the help of governments, should seriously assess how they can work with foreign MNCs in order to increase their skills, create long term benefits and become players on the world stage.

7 References

Allen Consulting Group (1994): *The Benefits of Regional Headquarters and Factors Influencing Their Location in Australia*. Canberra, Department of Industry, Science and Technology and the National Investment Council: 70.

Allen Consulting Group (1997): *Winning Companies and Jobs -- How High Growth and Knowledge-Intensive Industries Create Jobs.* Sydney, Australian Business Foundation.

Allen Consulting Group (1999): *Making Better Connections: A Review of the Regional Headquarters Program*, Invest Australia.

Allen Consulting Group (2001): *Creating Value by Transforming Knowledge: Australia's Business and Professional Services Sector*. Canberra, Department of Industry, Science and Resources and Austrade, 112pp.

Andersen, O. and Birgitte, Eds. (2000): *Knowledge and Innovation in the New Service Economy*. Cheltenham, U.K, Edward Elgar.

Andersson, U. and M. Forsgren (2000): *In Search of Centres of Excellence: Network Embeddedness and Subsidiary Roles in Multinational Corporations.* Management International Review 40(4): 329.

Andersson, U., M. Forsgren, et al. (1996): *Subsidiary Embeddedness and Control in the Multinational Corporation.* International Business Review 5(5): 487--508.

Australian Bureau of Statistics (1995): *Innovation in Industry, 1993-94.* Canberra, Australian Bureau of Statistics.

Belderbos, R. (2001): *Overseas Innovations by Japanese Firms: An Analysis of Patent and Subsidiary Data.* Research Policy 30: 313 -- 332.

BIE (1993): *Multinationals and Governments -- Issues and Implications for Australia.* Canberra, AGPS, Bureau of Industry Economics

Birkinshaw, J. (2001): *Unleashing Innovation in Foreign Subsidiaries: Beyond the Myth of the Branch-Plant Economy.* Presentation to Australian Graduate School of Management, Sydney, 14 August 2001.

Birkinshaw, J. and A. Morrison (1995): *Configurations of Strategy and Structure in Subsidiaries of Multinational Corporations.* Journal of International Business Studies(Fourth Quarter): 729-753.

Birrell, b., I. Dobson, et al. (2001): *Skilled Labour: Gains and Losses*. Melbourne, Monash Centre for Population and Urban Research: 36.

BRW (2000). BRW *Top 500 Foreign Firms.* Business review Weekly, October 2000, special report.

Cantwell, J. and G. Santangelo (1999): *The Frontier of International Technology Networks: Sourcing Abroad the Most Highly Tacit Capabilities.* Information Economics and Policy 11: 101 -- 123.

Cohendet, P. (1999): *Knowledge Coordination, Competence and Creation of Integrated Networks in Globalised Firms.* Cambridge Journal of Economics 23: 225-41.

Considine, M., S. Margison, et al. (2001): *The Comparative Performance of Australia as a Knowledge Economy.*

Coopers & Lybrand (1997): *Scoreboard 97 – Business Expenditure on Research and Development*, IR&D Board, Canberra, 88pp.

Craig, T. (1997): *Location and Implementation Issues in Support Function FDI: the Globalisation of Matsushita Electric Industrial Co. Limited.* Asia Pacific Journal of Management 14(2): 143-164.

Department of Communications, IT and the Arts (1999): *The IT Engine Room: SMEs in Australia's IT&T Industry*. Canberra, Department of Communications, IT and the Arts: 50pp.

Department of Industry, Science and Resources (2000): *Knowledge-based Activities: Selected Indicators.* Canberra, Knowledge-based Economy Branch, DISR: 46.

Department of Industry Science & Resources (2000): *CRC Compendium*. Canberra, Department of Industry Science & Resources: 60.

Department of Industry Science & Resources (2001): *Accessing Global Supply Chains: the Implications of the Internet for Australian Business.* Canberra, DISR: 7.

Department of Industry Science & Resources (2001): *Structural Change in Australian Industry*. Canberra, Department of Industry Science and Resources: 50.

Department of Industry Science and Resources (1998): *Multinationals, Trade and Investment: the Ingredients for Globalisation and Growth.* Canberra, Industry Analysis Branch, DISR: 16pp.

Department of Trade and Industry (1998): *Building the Knowledge Driven Economy: Competitive Advantage in the Digital Economy*. London, Department of Trade and Industry, London.

Edquist, C. (1997): *Systems of Innovation: Technologies, Institutions and Organizations*, Pinter: London and Washington.

Enright, M. J. (2000): *Regional Clusters and Multinational Enterprises: Independence, Dependence or Interdependence?* International Studies of Management and Organization 30(2): pp114-138.

Erramilli, K. (1996): *Nationality and Subsidiary Ownership Patterns in Multinational Corporations*. Journal of International Business Studies (Second Quarter): pp225-248.

Fisher, S., A. Stoeckel, et al. (1998): *Trojan Horse or More Horsepower? Foreign Investment in the Australian Rural Economy*. Melbourne, Rural Industries R&D Corporation: 50pp.

Florida, R. (1995): *Toward the Learning Region.* Futures 27(5): 527-536.

Forsyth, D. P. and D. L. Dwyer (1992): *Impacts of Foreign Investment in Australian Tourism.* Brisbane, Bureau of Tourism Research: 87pp.

Fosfuri, A., M. Motta, et al. (2001): *Foreign Direct Investment and Spillovers Through Workers' Mobility*. Journal of International Economics 53: 205 -- 222.

Frost, T. and C. Zhou (2000): *The Geography of Foreign R&D within a Host Country: An Evolutionary Perspective on Location-Technology Selection by Multi-nationals.* International Studies of Management and Organization 30(2): 10-43.

Granstrand, O., L. Hakanson, et al. (1993): *Internationalisation of R&D - a Survey of Some Recent Research.* Research Policy 22: 413-430.

Hanratty, P. (1996): *Inward Direct Foreign Investment in Australia: Policy Controls and Economic Outcomes.* Canberra, Parliamentary Research Service: pp27.

Hatzichroniglou, T. (1999): *The Globalisation of Industry in the OECD Countries.* Paris, OECD: pp54.

Hill, H. and B. McKern (1997): *Australian. Governments, Globalization and International Business.* J. Dunning. Oxford, Oxford University Press: 203-243.

Hobday, M. (2000): *The Project-based Organisation: An Ideal Form for Managing Complex Products and Systems?* Research Policy 29: pp871-893.

Houghton, J. and P. Sheehan (2000): *A Primer on the Knowledge Economy. Melbourne,* The Centre for Strategic Economic Studies,Victoria University of Technology: 28pp.

Howells, J. and J. Roberts (2000): "Global Knowledge Systems in a Service Economy." in Anderson, Birgitte et al (eds) *Knowledge and Innovation in the New Service Economy.* Cheltenham, Edward Elgar: pp248-266.

Invest Australia (2000): *Market and Competitor Analysis Report.* Canberra, Invest Australia: 37pp.

Invest Australia (2001): *Government Assistance, Facilitation Services and Financial Incentives.* Canberra, Commonwealth Government: Loose leaf brochure.

Kang, N.-H. and K. Sakai (2000): *International Strategic Alliances: Their Role in Industrial Capitalisation.* Paris, OECD: 48.

Kostova, T. (1999): *Transnational Transfer of Strategic Organizational Practices: A Contextual Perspective.* Academy of Management Review 24(2): 308-324.

Kumar, N. (2001): *Determinants of Location of Overseas R&D Activity of Multinational Enterprises: The Case of US and Japanese Corporations.* Research Policy 30: 159 -- 174.

Langdale, J. V. (2001): "Global Electronic Spaces: Singapore's Role in the Foreign Exchange Market in the Asia-Pacific Region." in Leinback T et al (eds) *Worlds of Electronic Commerce: Economic, Geographical and Social Dimensions.* Chichester, Wiley: pp203-219.

Marceau, J., K. Manley, et al. (1997): *The High Road or the Low Road: Alternatives for Australia's Future.* Sydney, Australian Business Foundation.

Mataloni, R. J. (2000): *US Multinational Companies: Operations in 1998.* Survey of Current Business, US Bureau of Economic Analysis: pp26-45.

Meredith, D. and B. Dyster (1999): *Australia in the Global Economy: Continuity and Change.* Cambridge, Cambridge University Press.

Michael, D. (2000): *Foreign Investment in Australian Food and Fibre: The Effect on Exports and Outbound Foreign Investment.* Canberra, Rural Industries R&D Corporation: 48pp.

Moshirian, F. (1998): *International Financial Services: Multinational Financial Companies in Australia.* Journal of Multinational Financial Management 8: pp365 -- 379.

National Office of the Information Economy (2000): *E-commerce Beyond 2000.* Canberra, Department of Communications, IT and the Arts.

Nicholas, S., S. Gray, et al. (1998): *Australian Investments Overseas and Investments in Australia.* Melbourne, Australian Centre for International Business: 10pp.

OECD (1998): *Survey of OECD Work on International Investment.* Paris, OECD: 36pp.

OECD (2000): *The OECD Guidelines for Multinational Enterprises.* Paris, OECD: 8pp.

OECD (2001): *New Patterns of Industrial Globalisation: Cross-Border Mergers and Acquisitions and Strategic Alliances.* Paris, OECD: 180pp.

Office of Technology Assessment (1993): *Multinationals and the National Interest - Playing by Different Rules.* Washington DC, US Congress.

PA Cambridge Economic Consultants (1995): *Assessment of the Wider Impacts of Foreign Direct Investment in Manufacturing in the UK.* Cambridge, Department of Trade and Industry: 192.

Pennings, J. and Harianto, F (1992): *Technological Networking and Innovation Implementation.* Organisation Science 3(3): 356-382.

Porter, P. M. E. (1995): *The Competitive Advantage of Nations, States and Cities.* Swansea, Wales, Harvard Business School.

Prencipe, A. (2000): *Breadth and Depth of Technological Capabilities in CoPS: the Case of the Aircraft Engine Control System.* Research Policy 29(August): 895 -- 911.

Rogers, M. and S. Feeney (1999): *R&D and Intellectual Property Scoreboard 1999: Benchmarking Innovation in Australian Enterprises.* Melbourne, Melbourne Institute of Applied Economic and Social Research,: 30.

Ruthven, P. (2000): *Big Earners, Small Hirers.* Business Review Weekly, 13 October 2000): pp114 -- 115.

Sheehan, P. and G. Tegart (1998): *Working for the Future: Technology and Employment in the Global Knowledge Economy.* Melbourne, Victoria University Press, Melbourne.

Simmie, J. and J. Sennett (1999): *Innovative Clusters: Global or Local Linkages?* National Institute Economic Review 170: 87-98.

The Economist (2000). Something Old, Something New. The Economist. 7 September 2000.

The Economist (2000): *The World's View of Multinationals.* The Economist. 27 January 2001.

Thomsen, S. (1999): *Investment Patterns in a Longer-Term Perspective.* Paris, OECD Directorate for Financial, Fiscal and Enterprise Affairs.

Turpin, T. (1996): *Raising R&D in Australia.* Wollongong, Centre for Research Policy, University of Wollongong.

UNCTAD (1999): *World Investment Report 1999: Foreign Direct Investment and the Challenge of Development.* New York, United Nations Conference on Trade and Development.

UNCTAD (2000): *World Investment Report 2000: Mergers and Acquisitions. Geneva, UNCTAD*

UNCTAD (2001): *World Investment Report 2001: Promoting Linkages*. Geneva, UNCTAD.

Van Tulder et al (2000): *Interactive Innovation - Multinationals and Systems of Innovation: Towards an International Interactive Perspective*. Rotterdam, Erasmus University in Rotterdam.

Van Tulder, R., D. Van den Burghe, et al. (2001): *The World's Largest Firms and Internationalization*. Rotterdam, Rotterdam School of Management.

Vickery, G. (1996): "The Globalisation of Investment and Trade" in De la Mothe, G. et al (eds) *Evolutionary Economics and the New International Political Economy*. Pinter: London and New York: 102pp.

Wyckoff, A. (1993): *The Extension of Networks of Production Across Borders*. STI Review 13(December): pp61-87.

8 Appendices

Appendix A: MNC Interview Guide

This is an interview guide which contains some set questions and some starting points for discussion of issues. The depth of discussion will depend to some extent on the company that is being surveyed. However, during the interview it is expected that all questions in ***bold*** *will be answered in order to develop a database for analysis.*

Background Information

1. Background information on respondent (This will be gathered by background research first, to minimise time spent on this in the interview itself).
   - **Name of Australian subsidiary**
   - **Name of parent**
   - **Country of parent headquarters**
   - **Employment in firm worldwide (FTE) in 1999-2000**
   - **Employment in subsidiary in Australia (FTE) in 1999-2000**
   - Cities where Australian staff are located (% in Australia cf o/s)
   - Year of first move into Australian market and how (Greenfield, merger, takeover/acquisition)

2. **What are the main activities in Australia? Does the respondent manufacture here?**
3. **Is the respondent an RHQ[34]?** (yes/no: more details later in questionnaire)
4. **Have activities changed in last three years? How? Do you expect them to change in next three years?**
5. Does your firm export from Australia? To where?
6. What are the top three reasons for your global parent's decision to move in to the Australian market? (prompts: size or other characteristics of domestic market; access to technology; Australia as a base for reaching Asia; country-specific intermediate inputs, inward incentives from government). Any comparisons for location in Australia vs Singapore, etc?
7. What are the top three factors that influenced your choice to place your Australian HQ in (Sydney, Melbourne...)?

[34] A Regional Headquarter (RHQ) is a company located in Australia, whose parent company is located in a country other than Australia, and that provides business services on behalf of the parent company to associated companies and customers located in countries other than Australia. Business services include, for example, management, financial, treasury, business planning, marketing, accounting, IT, telecommunications, training, R&D and customer support services, but exclude sales activities.

Value Chain: Analysis of Supplier, Customer and Other Linkages

Suppliers

8. **Ask respondents to provide non-identifying information as follow on top 3 suppliers**:

	Supplier 1	Supplier 2	Supplier 3
City (location)			
Input category*			
Does MNC train/certify supplier in meeting product quality standards			
Does MNC train/certify supplier in meeting service quality standards			
Has there been technology transfer from MNC to supplier			
Have sales to MNC been used by supplier to gain access to other markets/ customers.			

* Resource Industries; Manufacturing; Construction & Repairs; Goods Distribution; Electricity, Gas & Water; Knowledge Services; Social Services; Leisure Services.

9. **What is your best estimate of the relative percentages of local (Australian) inputs vs imported inputs? What has determined this balance of activity?** Discuss the benefits/disadvantages of Australian suppliers as a group (vis a vis o/s suppliers).

10. **Of the Australian inputs, what percentage of inputs are from firms in the same city as the major activity of the respondent? What has determined this balance of activity?** What are the advantages (if any) for the MNC? Role of local suppliers if overseas parent is the major supplier.

Prompt: any case studies? Also ask respondents if they are willing to identify some key suppliers by name so these firms can be approached to participate in the supplier survey.

R&D

11. **Does the subsidiary undertake R&D in its own right in Australia**

12. **Is the R&D basic R&D, applied R&D or product modification for domestic market? *If relevant,* is R&D commercialised? Where? In what name is the IP registered? What strengths does Australia have in R&D**

13. **If the respondent contracts out R&D to Australian research organisations, what are the top three reasons for this contracting out?** What types of organisations (e.g. universities, CSIRO, hospitals or medical research institutes, Cooperative research centres, other public sector R&D organisations, other firms.

14. What is the customer for that R&D (i.e. external and customers or intermediate customers within MNC in other locations).

15. **Rank respondent's contribution to global product/process development by the parent firm on a Likert scale of 1 (no involvement) to 5 (crucial).** Discuss processes by which product charters, if any, were obtained.

Customer Linkages

16. As above, ask similar non-identifying information on the top 3 customers

	Customer 1	**Customer 2**	**Customer 3**
City			
Output category*			
Have federal government programs influenced relationships with customers?			
Is there joint work with the customer on measuring the market and responding to it (marketing campaigns etc)?			
Has there been technology transfer from MNC to customer?			

* Resource Industries; Manufacturing; Construction & Repairs; Goods Distribution; Electricity, Gas & Water; Knowledge Services; Social Services; Leisure Services.

Strategic Alliances, Joint Ventures, Mergers and Acquisitions

17. Rank the role of Australian acquisitions in company expansion in Australia on a Likert scale of 1 (unimportant) to 5 (crucial). Why use acquisitions instead of growing organically; what is the advantage to the buyer of the acquisition; what is the value to the co. purchased? **What will change in the next 3 years**

18. **What alliances or joint ventures have occurred in last three years and for what purpose?** (Prompts: support R&D, production, distribution, access to trained staff, access to knowledge, access to finance, other).

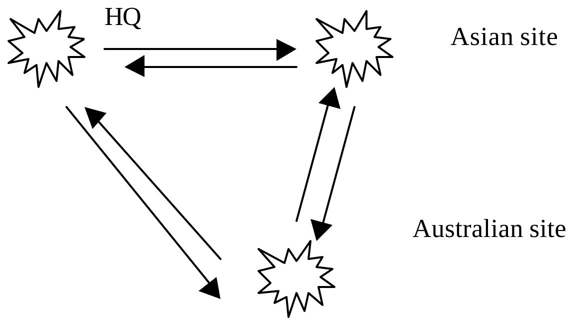
19. **Is the alliance driven by HQ or Australian subsidiary?** Explore role of these relationships in global and Australian strategy, approval processes for Australian relationships, long term impacts on strategy in Australia

Knowledge Networks

20. What other knowledge transfers take place between respondent and *external* organisations within Australia?

- *direction* of knowledge transfers. What types of internal knowledge are sent to other organisations and what external types are obtained?
- *kinds* of national knowledge transfer take place? (R&D, others?)
- Which knowledge is most important and in what ways?
- *How* does knowledge transfer take place (e.g. staff transfer, electronic networks)?
- What difficulties arise in these knowledge transfers and how have you attempted to overcome these difficulties?

21. What role does respondent play in global knowledge flows within your parent firm?



- Where is the knowledge generated?
- Who makes use of the knowledge in your local organisation and for what purpose?
- Which knowledge is most important and in what ways?
- How does knowledge transfer take place?
- What difficulties arise and how have you attempted to overcome these difficulties?

22. What is a typical career path for Australian-based management staff? Do they stay within the same firm?

23. Rank respondent's contribution to global knowledge flows within the global organisation on a Likert scale of 1 (unimportant) to 5 (crucial)?

24. Rank the role of your parent firm in providing access to global knowledge in respondent's Australian subsidiary on a Likert scale of 1 (unimportant) to 5 (crucial).

25. **Rank the ease with which the respondent's subsidiary gains access to the global knowledge held by the parent firm on a Likert scale of 1 (very difficult) to 5 (very easy).**

26. To what extent are customers and suppliers in Australia able to access global information from your firm?

Internal Management

27. What sort of training or skill enhancement does you r firm provide for its staff?

28. **Has respondent bid for a global or Asia-Pacific product mandate in the past three years?** What factors influenced the final decision? (Prompts: Role of government, e-commerce implications, cultural issues?). What effect does it have on respondent operations?

29. Rank the level of influence that the subsidiary has on global decisions for placement of new production units on a Likert scale of 1 (no influence) to 5 (overwhelming influence).

30. Does the performance of the MNC in the Australian market affect respondent's ability to influence its parent in any of these issues?

E-Commerce

A key issue involving e-commerce relates to the extent that it enhances the integration of foreign MNCs in the national economy. Questions will probe the current situation and that likely in the next three years.

31. **Rank the extent to which implementation of e-commerce systems has influenced your overall linkages with other firms in Australia on a Likert scale of 1 (many fewer linkages with Australian organisations) to 5 (many more links with Australian organisations).** What do you think the situation will be in three years time?
32. **Have global e-commerce systems reduced the barrier of distance so that your firm is better able to take global market opportunities?** What do you think the situation will be in three years time?
33. **Has e-commerce influenced the degree to which respondent can bid more easily for global or Asia-Pacific regional charters within your global firm?** What do you think the situation will be in 3 years time?
34. Have e-commerce developments in your wider industry been implemented as planned? If not, what problems are slowing developments?

Conclusion

Expand discussion on ways the respondent feels operations in Australia have influenced Australia economy etc. What are the most positive relationships?

Appendix B: People Consulted During Project

MNC interview subjects marked with *
Respondents to supplier survey marked with (S)

First Name	Last Name	Position	Organisation
John	Abbott	General Manager	The Fortune Group (S)
Geoffrey	Ashton	Chairman	East Coast Angels
Tony	Axford	Industry Development Officer Director	Central Coast Aquaculture Foundation (S)
Tony	Bates		
Suzette	Bailey	Director	Sensory7 Pty Ltd (S)
Malcolm	Bell	Marketing Manager	CAE Electronics (Australia) Pty Ltd (S)
Graeme	Bevan	Commercial Business Manager	Central Coast Campuses (S)
E.	Blereau	Director	Compucat Research (S)
Bill	Blowes	Technical Director	Monsanto*
Denton	Bocking	Principal Consultant	Denton Bocking Consulting Pty Ltd (S)
Tun	Born	General Manager	Cryoquip Australia (S)
Peter	Brooksbank	Managing Director	Marplex Australia Pty Ltd (S)
Ron	Bunker	Managing Director	Citibank Limited*
Terry	Bunn	CEO	Monsanto*
Rob	Campbell	Director Corporate Communications	Alcatel Australia Ltd*
Geoff	Chamberlain	Chief Strategist & Economist and	Holden Ltd*
Stephen	Cheney	Director	Prior + Cheney Pty Ltd (S)
Brent	Clark	Manager (Canberra)	Sonartech Atlas Pty Ltd (S)
Ric	Clark	Chief Executive Officer	Ericsson AsiaPacificLab Australia Pty Ltd*
Ken	Crane	Managing Director	ACTIONLASER Pty Ltd (S)
Peter	Crowfoot	Corporate Services Manager	Kimberly-Clark Australia*
Paul	Cummins	Managing Director	Colorpak Packaging Pty Ltd (S)
Lindsay	Ditlham	Sales Manager	The Van Dyke Press Pty Ltd (S)
Geoff	Fagan	Public Affairs Director	Siemens Ltd*
David	Fayle	Managing Director	BioAccent Pty Ltd (S)
K.M.	Folwell	Managing Director	Pivot Ltd (S)
Graeme	Fowler	Head of Portfolio Services	BT Portfolio Services *
Bob	Frater	Vice-President, Innovation	ResMed Ltd
Anton	Fruehwirth	CEO	Siemens VDO Pty Ltd (S)
G.	Gelok	Community Relations Manager	Clough Engineering Ltd (S)
Peter	Gower	Regional Manager-Australasia	Billiton Exploration Australia Pty Ltd*
David	Gray	Managing Director	Boeing Australia Ltd*
Andrew	Grunfeld	Managing Director	Chef's Pantry (S)

Don	Hall	Managing Director	Aspect Packaging (S)
Ian	Harding	Managing Director	CES Computers Pty Ltd (S)
Don	Hardy	Managing Director	Federal Express Corp*
Jim	Harris	Chief Operating Officer	Advantra Pty Ltd (S)
Peter	Hewitson	Managing Director	Sverdrup Technology Australia (S)
Louise	Hicks	Company Secretary	Henry Walker Eltin (S)
Robert	Scherini	Managing Director	Johnson & Johnson Research*
Ray	Hill	Group General Manager	Pauls Ltd*
Keith	Hilless	Managing Director	NRG Asia Pacific Ltd*
Bill	Hobbs	Director	ITL Corporation (S)
Kelvin	Hopper	Managing Director	Aoris Nova Pty Ltd (S)
David	Hudson	Managing Director	Barclay Mowlem*
Brenda	Hutchinson	Director	Vulcanite Pty Ltd (S)
Malcom	Jackman	Managing Director	Manpower Services Australia*
Howard	Johnson	Managing Director	Environmental Group Ltd (S)
Craig	Jones	Managing Director	Krone Australia Holdings Pty Ltd*
Ene	Juurma	Business Development Manager	Leukaemia Foundation
Steve	Kates		Australian Chamber of Commerce & Industry
Simon	Keily	Director	World Precision Instruments Pty Ltd (S)
Anthony	Kelly	Corporate Secretary	TXU Australia Pty Ltd*
Peter	Kelly	General Manager Corporate Services	Nestle*
Phil	Kerrigan	Chief Executive Officer	Fujitsu Australia Ltd*
Bob	Killick	Managing Director	Victorian Chemicals Pty Ltd (S)
Brian	King	Director	Kingfood Australia Pty Ltd (S)
Tony	Lamond	Managing Director	Corporate Interlink & The Business Planning Group (S)
P.J.	Lancaster	Managing Director	Food Spectrum Pty Ltd (S)
T	Limpus	Manager	KD Instruments (S)
Shad	Linley	CEO	Sun Metals Corporation Pty Ltd*
Catherine	Livingstone	Director	Telstra Ltd
Daniel	Lucas	Chief Financial Officer	Unilever Australia Ltd*
Greg	Manderson	Managing Director, Dir Asia Pacific	Ventana Medical Systems (S)
Paul	March	Managing Director	Creative Logistics Pty Ltd (S)
Llew	Martin	Financial Controller	JRC International Pty Ltd (S)
Roger	Martindale	Business Liasion Manger	The Distillery Pty Ltd
John S	Melbourne	Managing Director	JS Melbourne Controls Pty Ltd (S)
David	Michaelis		East Coast Angels Pty Ltd
Theresa	Mitchell	Training Manager	Aerospace Training Services (S)
Joe	Moharich	Managing Director	Helitech Industries Pty Ltd (S)
Ian	Nicholls	MD	NR Online (S)
Keith	Orchison	CEO	Electricity Supply Association of Australia
Paul	Orton		Australian Business Ltd
Julie	Owen	Senior Vice President	McDonald's Australia*

Jennifer	Parker	Corporate Communications Manager	AOL Australia Online Services*
Mark	Paron	General Manager	Natra Pty Ltd (S)
Ian	Penfold	Managing Director	Gregory Chairs
Eric	Peters	Managing Director	Australian Photogeological Consultants Pty Limited (S)
Louis	Petrin	General Manager	Arrow Scientific (S)
Adrian	Pountain, MD	Managing Director	Novartis Animal Health Australasia Pty Ltd*
William	Prentice	Vice President	Time Warner*
Stuart	Ramshaw	Director	CanberraNet (S)
Jeremy	Ranicar	Director	Oceanic Solutions Pty Ltd (S)
Jim	Ritchie	Managing Director	Professional Careers Australia
Angus M	Robinson	Executive Director	Australian Electronic and Electrical Manufacturers Association
David	Robinson	Managing Director	McConnell Dowell Corporation Ltd*
Hans	Ruitenberg	Company Director	
Ghislaine	Samways	Branch Manager	Promega Corporation*
Bill	Scardelis	Operations Manager	Carr Fastener Holdings Pty Ltd (S)
Tim	Shalders	Group General Manager/ Director	Alsafe Safety Industries Pty Ltd (S)
Alison S.	Terry	Director Government and External Relations	Holden Ltd*
Nick R.	Thomas	Public Affairs Manager	Exxon Mobil Oil Australia Pty Ltd*
Mike	Trevethan	Manager (Canberra)	Betta Canvas Products (S)
Peter	Upton	Executive Director	Federation of Australian Automotive Parts Manufacturers
Dr Brett	Wayne	Managing Director	AOL Australian Online Services*
David	Webster	Managing Director	Clipsal Airtec Pty Ltd
Gary	West	Corporate Relations Manager	Unilever Australia Ltd*
Michael	West	Director, Head of Marketing and Communication	Deutsche Bank AG*
Richard	White	CEO	Eagle Datamation International Pty Ltd (S)
Warren	Williams	MD	Codarra Advanced Systems (S)

Appendix C: Survey Of Firms That Supply Goods And Services To Multinationals Which Operate In Australia

Introduction

This section is seeking information about your firm so that we understand our research sample.

1. Name of firm____
2. Name of person who is completing this survey________________________
3. Position of person who is completing this survey________________________
4. How many people (full time equivalents) are employed by your firm

   In Australia_______ Overseas_________ Total_______________________

5. Which of the following applies to your firm? (place a cross (X) in one box only)

❑ Majority (or wholly) Australian -owned ❑ Not majority Australian-owned

6. Are your products and services normally sold to your customers as:

   (place an X in one box only)

❑ Raw materials for production of goods or services; OR
❑ Intermediate inputs that your customer uses to manufacture goods or produce services; OR
❑ Finished goods or services where the customer is the end user; OR
❑ Finished goods and services where the customer is a distributor or other intermediary

7. Do you do R&D (research and development) on your own behalf to develop your products and services? (place a cross (X) in one box only)

❑ Yes ❑ No

Your Customers

We are interested your relationships with customers that are *__Australian-based but are subsidiaries of multinationals headquartered overseas__* (ie are not majority Australian-owned), *(for example, McDonald's Australia, IBM Australia, Parmalat Australia). We are also interested in whether these relationships differ from those with customers that are majority- or wholly Australian-owned. In order to answer these questions please think about your largest customer that is a foreign-owned firm operating in Australia* *__and__* *your largest majority Australian-owned customer*

8. The following questions ask you to write a number or word in response to a question about your contracts with these two types of customers. Please fill in all the boxes in the table

	Your largest customer that is a foreign-owned firm operating in Australia	**Your largest majority-Australian-owned customer**
What percentage of your total turnover is derived from this customer?	%	%
In what city in Australia is this customer headquartered?		

9. The following questions ask you to put a cross in a box to answer *yes*, *no* or *don't know* about your relationship with these two types of customers. Please put one cross (X) in the white columns and one in the grey columns in each line of the table. The first line is a sample.

	Your largest customer that is a foreign-owned firm operating in Australia			Your largest majority-Australian-owned customer		
	Yes	**No**	**Don't know or N/A**	**Yes**	**No**	**Don't know or N/A**
SAMPLE ONLY: Does this customer promote distribution of your products		*X*				*X*
Does this customer distribute your products in Australia?						
Does this customer distribute your product overseas?						
Does this customer train or certify your staff in meeting production quality standards?						
Does this customer train or certify your staff in meeting service quality standards?						
Does this customer order goods and services from you via an internet-based e-commerce website?						
Have sales to this customer helped you to gain access to other markets/ customers in Australia?						
Have sales to this customer helped you to gain access to other markets/ customers overseas?						
Has there been technology transfer from this customer to your firm?						
Do you do R&D specifically for this customer?						
Does this customer help you to develop new products or services for them?						
Does this customer help you to develop new products or services that you can sell elsewhere?						

10. What is the most significant way that foreign-owned customers operating in Australia contribute to your business? ________________________________

11. What is the most significant way that majority Australian-owned customers contribute to your business? ________________________________

Strategic Alliances

12. *In the last three years*, how many strategic alliances or joint ventures have you formed with foreign-owned firms (customers and others) operating in Australia? ______________

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13. Thinking of the largest of these, what value does it provide to your firm?________________________________

Conclusion

Would you be willing to talk to our researchers to provide a case study of how firms have worked together with customers who are foreign-owned firms operating in Australia . Each case study will be cleared with your prior to publication.

❑ Yes ❑ No Thank you for your time.

Appendix D: Summary of Data From Interviews With MNCS

Table Q 1: Basic Data on Respondents

Background Question	Response
Number of MNCs interviews	30
Countries of parent HQ	USA 17 Europe 7 UK 3 Other 3
Employment worldwide	5,145,803
Employment in Australia	105,844 (2.06%)
Cities where located	Headquarters: Sydney 16 Melbourne 8 Other 6
Year of first move into Australian market	Range 1880-1998
Method of first move into Australian market	Greenfield 22 Acquisition 8

As a result, the Australian operations for the majority of respondents are not a major component of their global business. For a minority, however, the Australian operations represent a significant share of their global employment (Table Q 2). Of ten companies listed, six were the company's Asia-Pacific RHQ and seven were significant exporters from Australia.

Table Q 2: Respondents with a Relatively Large Share of Global Employment

Industry of MNC	Australian employment (% of global)	Features
Services company	28.5	All Australian operations are joint ventures
Services company	25.0	Asia-Pacific RHQ, exports
Resources company	16.4	Major exporter
Services company	11.1	Asia-Pacific RHQ and exports
Services company	10.0	Asia-Pacific RHQ and exports
Resources company	10.0	Asia-Pacific RHQ, exports
Technology company	7.5	Asia-Pacific RHQ, exports
Services company	5.7	Purchase established Australian businesses
Resources company	4.1	Decentralised, integrated resource developer and processor
Manufacturing company	3.9	Asia-Pacific RHQ, exports

Source: Company interviews

A number of respondents emphasised that their Australian subsidiaries were very successful exporters and that they saw considerable potential for further export growth.

Table Q 3: Characteristics of Exporting MNCs

Category	Sub-category	No Exports	Exports
Entry Mode	Greenfield	8	14
	Acquisition	1	7
Strategy Type	Local Implementer	8	5
	Specialised Contributor	1	11
	World Mandate	0	5
Parent Country	USA	9	8
	UK/Europe	0	10
	Other Regions (Asia/Africa)	0	3

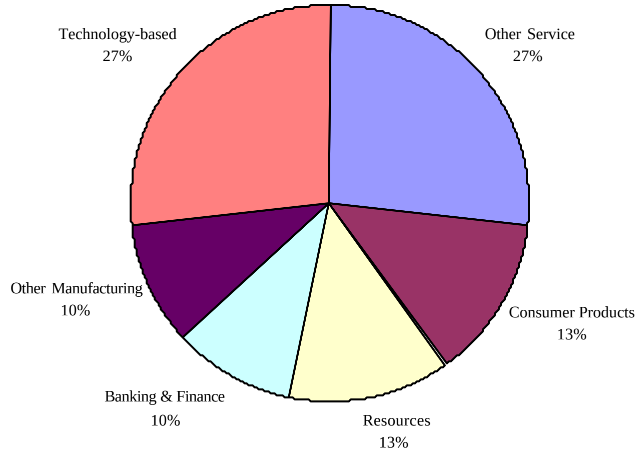
Source: Company interview

The choice of the headquarters city was largely historical. The presence of a pre-existing company was a factor for those firms which entered by acquisition, and "cluster factors" (proximity to customers, suppliers or infrastructure) were also mentioned (14 respondents). Regional or local financial incentives were mentioned by only one firm, as was access to physical infrastructure (two firms) and quality of life factors. These reasons contrast with reasons cited by UK MNCs. In those cases the main issue was access to suitable sites, followed by labour. The differences probably reflect the relative crowding of the UK compared to Australia, relative difficulty of distance travel and the different pressures on the labour market there.

Table Q 4: Manufacturing Activity

Response	No.	Comment
NA	11	Banking/Finance and Other Service firms
No	6	Resources and technology-based firms
Yes	13	Resources, other manufacturing and consumer products firms
Grand Total	30	

Figure Q 1: Major Sub-Classes of Respondents



In the main, UK/European firms favoured grouped RHQ structures but firms from all regions also had "distributed" RHQs.

Table Q 5: RHQ Type and Structure

	RHQ structure		
Scope of RHQ	**Distributed[a]**	**Grouped[b]**	**Total**
Asia Pacific	4	7	11
NZ/Pacific		5	5
Sub-Asia		1	1
No RHQ Structure			13
Grand Total	**4**	**13**	**16**

a Distributed RHQs occur when regional functions are scattered in different cities in the Asia Pacific. Some of these functions were located in Australia

b Grouped RHQs occur when Australia is the overall RHQ for the region

These RHQs took a range of forms. For one firm, Australia was the RHQ for New Zealand and the Pacific Islands, with Singapore the RHQ for the Asia-Pacific. However, the firm's management structure was quite complex, with some regional functions located in Shanghai, Australia, Bombay and Bangkok.

A second firm did not have a RHQ for the Asia-Pacific region, but the global heads of training, construction and IT are currently located in Sydney, although all individuals travelled extensively. The individuals wanted to be based in Sydney, because they are Australians and their families preferred to be here.

A third firm has various regional functions in Australia and other Asia-Pacific locations. The respondent pointed out that the location of regional functions was a political issue: a firm that relocated its RHQ away from a particular Asia-Pacific country might find that it would be excluded from government business in the future.

Finally, a fourth firm had an Asia Pacific support desk in Australia servicing Australia, New Zealand and five Asian countries but their head office is in Asia and hence Australia falls within its direct control for most functions.

MNCs are subject to major changes over relatively short periods of time. Fully two-thirds of respondents stated that their operations had changed in the last three years and the rest could foresee changes in the next three years. These changes included both expansion and contraction in the Australian market, shifting of operations offshore, increased and decreased exports and alterations to company structure. This means that, like other firms, these MNCs are constantly assessing the landscape and the existence of an Australian operation today does not necessarily mean that the operation will be here tomorrow.

Table Q 6: Change in Australian Activities Over Time

Responses	**Change in Last Three Years**	**Change in Next Three Years**
No	9	16
Yes	19	11
Unknown	1	3
Grand Total	30	30

Over two-thirds of respondents exported from Australia, although three of these exported only to New Zealand and the Pacific Islands. The high proportion of exporters per se is largely a result of selection bias of the respondents as we were particularly interested in examining the influence of parent firms over export strategies. Nine respondents did not export, mainly because they were in either retailing or service industries that do not lend themselves to exports. Several firms in the non-exporting group were primarily selling a service or product in Australia, with the headquarters country undertaking most of the exports for the firm, and the Australian operation concentrating on sales and marketing. Two had a product that cannot be exported because of technological limitations.

Table Q 7: Exports

Exports	Responses	Locations
No	8	NA
Yes	20	Asia 13 Europe 4 USA 5 Middle East 2 Pacific 3

Note: Respondents nominated more than one export destination

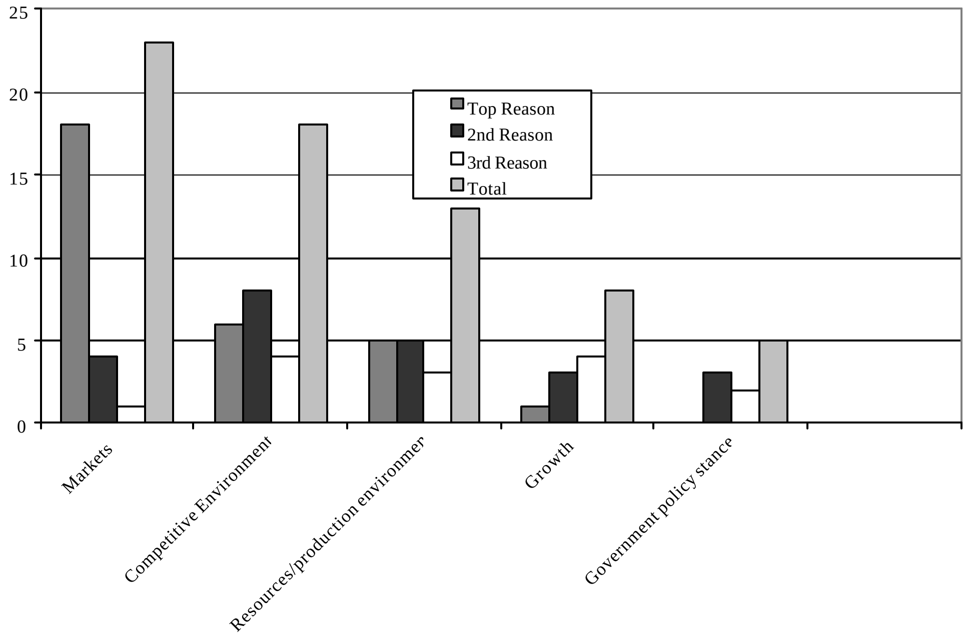
Table Q 8: Characteristics of Exporting MNCs

Category	Sub-category	No Exports	Exports
Entry Mode	Greenfield	8	14
	Acquisition	1	7
Strategy Type	Local Implementer	8	5
	Specialised Contributor	1	11
	World Mandate	0	5
Parent Country	USA	9	8
	UK/Europe	0	10
	Other Regions (Asia/Africa)	0	3

Firms that exported from Australia only to New Zealand and the Pacific Islands did so for a variety of reasons. One consumer products company pointed out that non-tariff barriers in Asia limited their ability to export, and while the issue was not explored in other interviews, this situation is likely to be the case in other industries. In other cases, the MNCs' Australian operations were not very large and their Asian subsidiaries were being aggressively expanded. In a number of cases where MNCs operated multi-domestic strategies, exports were discouraged because they would undercut the operations of their subsidiaries in other countries. This applied in several manufacturing firms whose exports were curtailed by head office or who only exported when other subsidiaries could not meet market demand.

MNCs' entry to the Australian market has primarily been for market access, although the nature of the competitive market is also a significant factor. The second most important reason was the competitive environment, which includes cultural aspects like English-speaking and factors pertaining to corporate strategy (Figure Q 2). Access to resources (mainly raw materials) was the third most frequent reason. Potential for growth, largely through accessing Asian markets, was an issue for a significant number of firms.

Figure Q 2: Top Reasons for Move into Australia



Government policy stance, including regulatory frameworks, fiscal and industry policy were also mentioned but were not significant. Many respondents were critical of government and denied that government incentives had any role in the decision to move here: companies had made the decision for other reasons and only one or two said that government assistance had had a positive effect. Australia's reputation as a rapid adopter of new technologies was mentioned by some respondents as a significant factor in Australian operations. In relation to mode of entry, companies entering with a greenfield investment were more likely to nominate growth opportunities and competitive environment as drivers for their move. There appear to be no significant differences by parent country or by strategy type.

The relative importance of these factors accords with a BIE study in 1993, which found that foreign firms' perceptions of Australia's advantages centred on domestic markets, access to regional markets and access to raw materials (BIE 1993). These results are also very similar to those reported in the UK, where the primary reason for moving in to the UK was domestic market access, followed by European market access, competitive environment and growth.

Value Chain: Analysis of Supplier, Customer and Other Linkages

Suppliers

Questions sought information for top three suppliers. Max possible responses = 90; actual responses = 87

Top suppliers were usually large and were often global firms in their own right.

Table Q 9: Input Class of Suppliers

Input class of Suppliers	Total	Percent	Comment
Manufacturing	45	51%	
Knowledge services	19	22%	Includes business advice, R&D, finance, health services, IT
Goods distribution	9	10%	Includes travel and freight
Resources	6	7%	Includes agriculture and mining
Construction & repairs	4	5%	
Electricity, gas & water	4	5%	
Grand Total	87		

Table Q 10: Clustering of Suppliers By MNC Class

Class of MNC	Different City to MNC HQ	Same City as MNC HQ	Total
Resources	4	8	12
Technology based	15	9	24
Other Service	10	14	24
Banking & Finance	4	5	9
Other Manufacturing	5	4	9
Consumer Products	8	1	9
Grand Total	**46**	**41**	**87**

Table Q 11: Relationship Between MNC and Top Three Suppliers

Characteristics of Relationship	Yes	No	NA	Don't know	Total
Does MNC train/certify supplier in meeting product quality standards	44	33	10		87
Does MNC train/certify supplier in meeting service quality standards	48	29	10		87
Has there been technology transfer from MNC to supplier	32	55			87
Have sales to MNC been used by supplier to gain access to other markets/ customers.	46	23	10	8	87

NA applies to firms where the parent was one of the top three suppliers.

MNCs' inputs predominantly came from Australia, with consumer products firms having the largest percentage and technology-based firms the lowest. About two-thirds of respondents' total suppliers were in Australia. Consumer products respondents led the field with an estimated 81.7% of inputs sourced nationally, with technology-based firms scoring the lowest at 55% of inputs. These figures cannot be compared with the numbers quoted in Chapter 4 for percentage of expenditure in Australia, as our question measured a different aspect of Australian inputs. However, we believe the level of Australian inputs is extremely high when labour is also taken into account.

Consumer products respondents emphasised the importance of training and certification of suppliers in order to ensure both product quality and meeting of service targets (e.g. on-time delivery and quality of supply). In contrast, many other MNCs in technology-intensive manufacturing and service industries felt that their suppliers were already at a high standard and they did not need to certify their products or services. Some MNCs pointed out that their suppliers were international or major national firms who had adopted sophisticated technology and they did not have to share knowledge with them. Several firms had brought their major suppliers from their headquarters country and did not see training and certification of Australian suppliers as an important priority. The "self-contained" MNC was, however, a minority perspective.

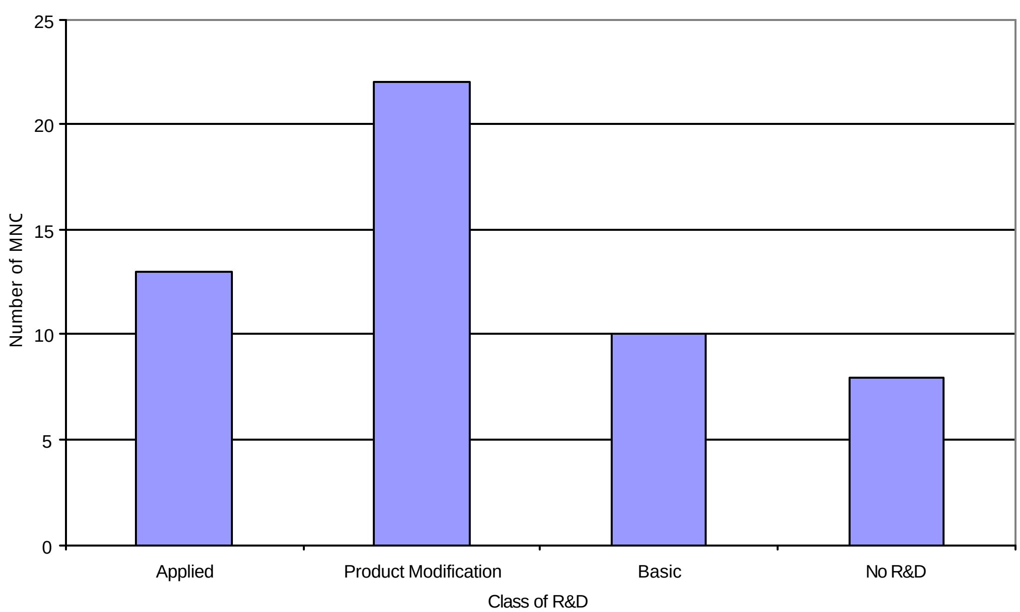
Table Q 12: Percentage of Australian Inputs

Product Class	**Percent Australian**	**Percent Same City**	**Overall Australian Inputs Same City**
Consumer Products	81.7%	72.5%	40.8%
Other Service	73.6%	68.2%	42.9%
Banking & Finance	73.3%	78.3%	57.3%
Other Manufacturing	71.0%	53.3%	31.6%
Resources	56.3%	52.5%	32.3%
Technology-based	55.0%	56.5%	27.8%
Total	**66.8%**	**61.7%**	

The majority of MNC respondents in this study were in Sydney and Melbourne. These respondents did not believe it was necessary to source supplies from their own city, and argued that transport and communications linkages were good in most parts of Australia. For these firms, it was more important to seek out the best suppliers for their operations. In addition, many suppliers were national firms who supplied the MNCs from multiple sources on a national basis. As a result, only 40% of all external inputs were sourced locally. Local inputs were more important for firms in banking and finance and other service industries. There was also no difference in certification demands to suppliers outside the same city.

R&D

Figure Q 3: Type and Amount of R&D in Australia?



Note: Of the 22 firms which undertook R&D, 15 nominated only one type of R&D. The remainder performed a range of types.

Table Q 13: Location of R&D

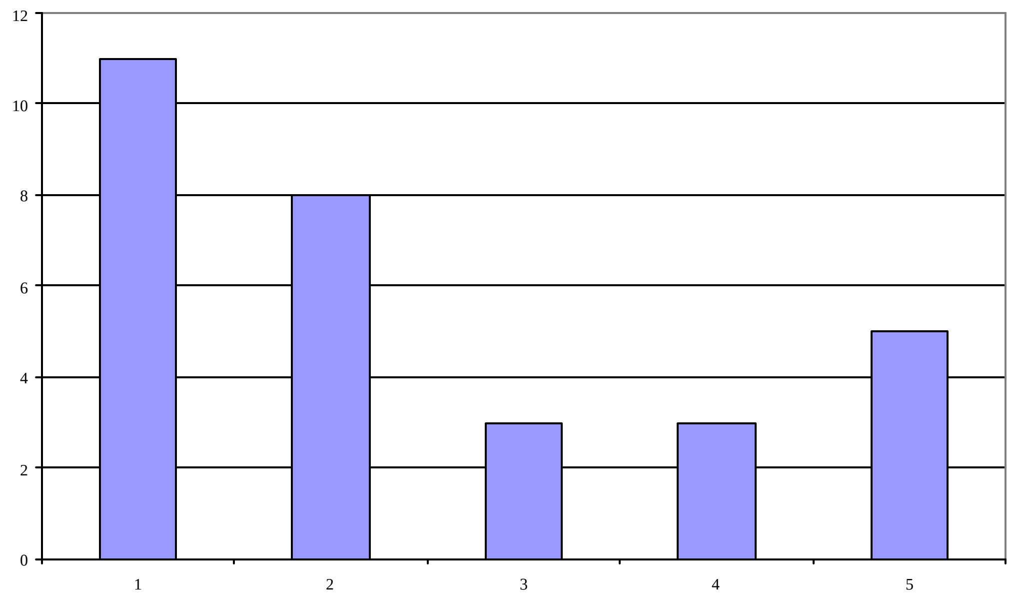
Perform R&D	No. MNCs	Location R&D
Yes	20	Only Inhouse 10 Outsourced to public sector R&D 9 Outsourced to firms 1
No	10	

The major reason given for outsourcing were the high quality of the researchers (4 cases), specific expertise of the researchers (4 cases), the local nature of the problem or product development (2 cases). Of the public sector agencies, CSIRO was mentioned by 7 MNCs, universities by 8, State agencies by 2 and other agencies by 2.

Table Q 14: Customers for R&D in Firm

Customer for R&D	Total
Global firm	15
Global firm and customers	2
Australian subsidiary only	2
Australian subsidiary and its customers	2
Unknown	1
Grand Total	22

Figure Q 4: MNC Contribution to Global Product/Process Development



Note: Uses Likert Scale of 1-5 where 1 is "no importance" and 5 is "crucial"

Customer Linkages

Questions sought information for top three customers. Max possible responses = 90, actual responses = 73. Several firms declined to answer this question, either because they sold to consumers and could not identify top customers, or because of privacy issues. Locations of customers were varied and are not reported here.

Table Q 15: Output Class of Customers

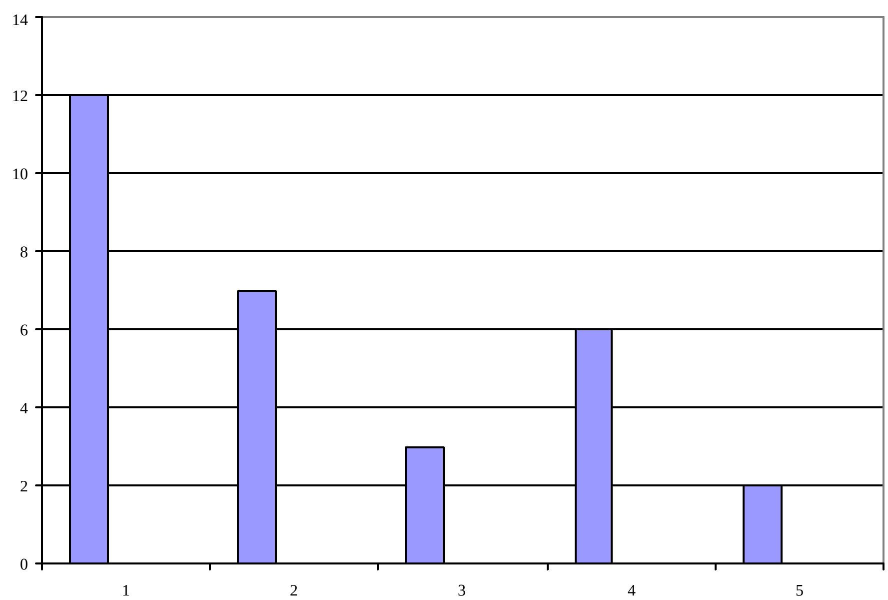
Output Class of Customers	Total	Percent	Comment
Knowledge services	24	31%	Incl. IT, health, R&D, communications
Goods distribution	23	32%	Includes retail trade and transport
Manufacturing	9	12%	
Electricity, gas, water	7	10%	
Resources	7	10%	
Government and defence	3	5%	
Grand Total	**73**		

Table Q 16: Relationship Between MNC and Top Three Customers

Characteristics of Relationship	Yes	No	Unknown	Total
Have federal government programs influenced relationships with customers?	20	50	3	73
Is there joint work with the customer on measuring the market and responding to it (marketing campaigns etc)?	36	37	0	73
Has there been technology transfer from MNC to customer?	38	35	0	73

Strategic Alliances, Joint Ventures, Mergers and Acquisitions

Figure Q 5: Role of Australian Acquisitions on MNC Expansion in Australia



Note: Uses Likert Scale of 1-5 where 1 is "no importance" and 5 is "crucial"

Figure Q 6: Number Alliances or Joint Ventures In Last Three Years

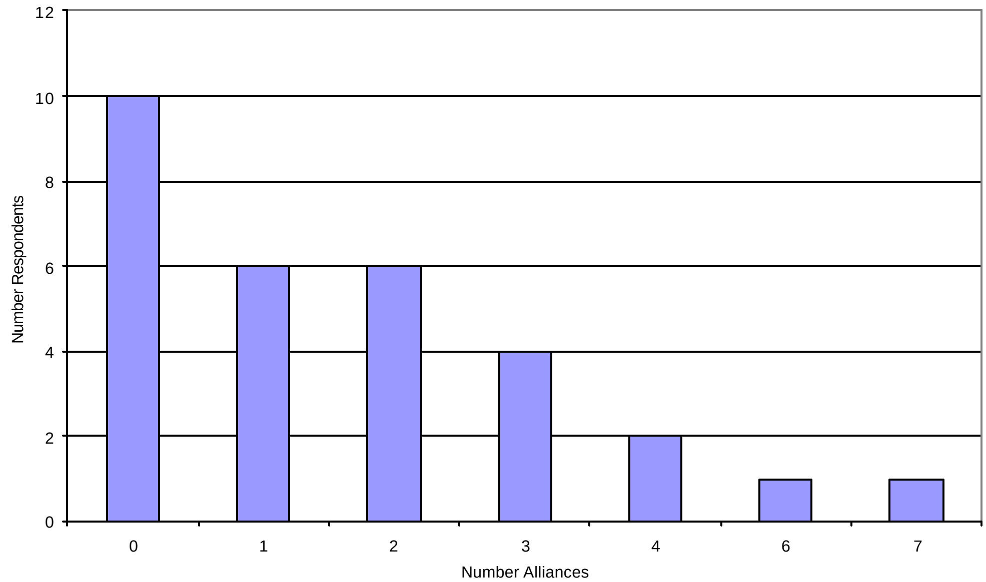
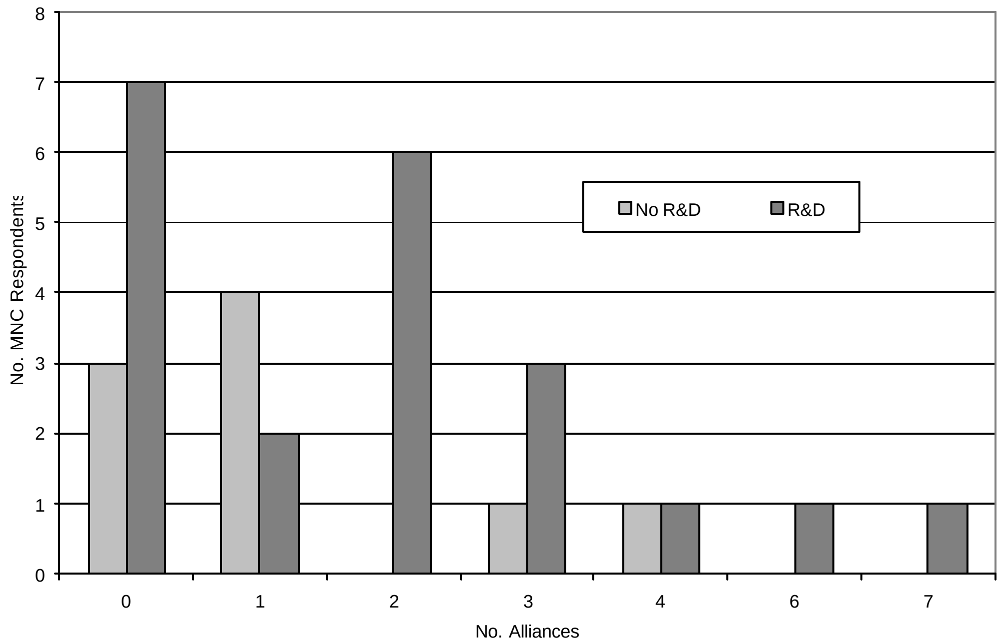


Table Q 17: Purpose of Alliances

Purpose of Alliance	**Total Respondents**	**Total Alliances**
Production (incl supplier agreements)	5	14
Outsourced services	4	10
Product development	4	11
Market access	3	4
R&D	2	8
Joint contracts	1	3
Maintenance	1	1
No alliance	10	
Grand Total	**30**	**51**

Figure Q 7: Number of Alliances in Past Three Years by R&D Performance



Source: Company Interviews

Table Q 18: Drivers of Alliances

Driver of Alliances	**Total**
Australian subsidiary	13
Head office	7
Both	6
Not answered	4
Total	**30**

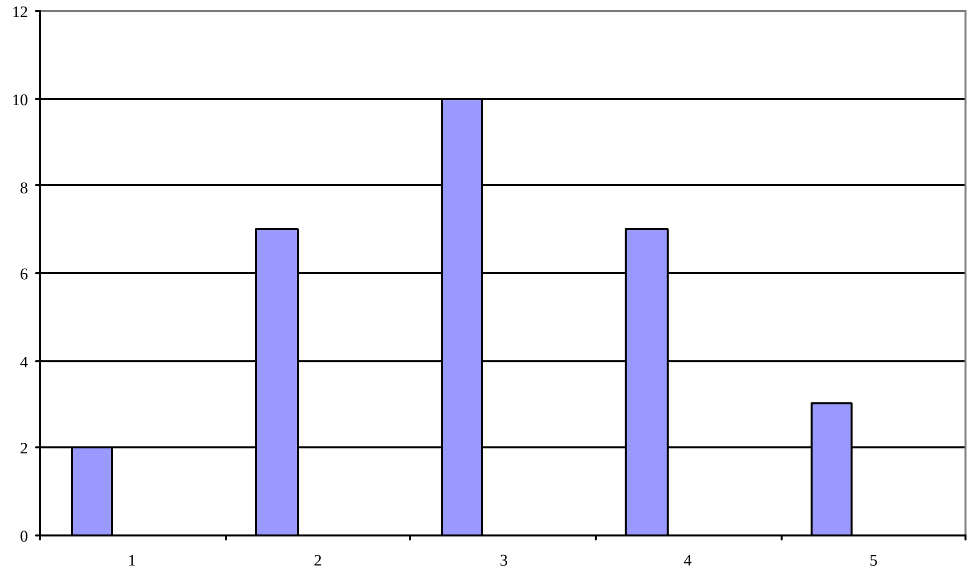
Knowledge Networks

One technology-based company emphasised the high educational qualifications of its staff. The respondent pointed out that over 90% of its staff have undergraduate degrees and the company has ongoing internal and external training programs. The internal training mainly takes place in an internal university within the company. The global company has established internal universities in various countries around the world, which provide a common program of skill development. In addition, they have a partnership or alliance with an external university and many of their engineers undertake courses in this program. Staff are also funded to undertake MBAs.

MNCs also make a significant contribution to training at lower skill levels of their employees. It is not possible to cover the wide range of training which takes place. One mining company operates a joint traineeship program with the local TAFE in a large provincial city. The TAFE oversees and monitors training within the company. The company is able to train young tradesmen to its standards.

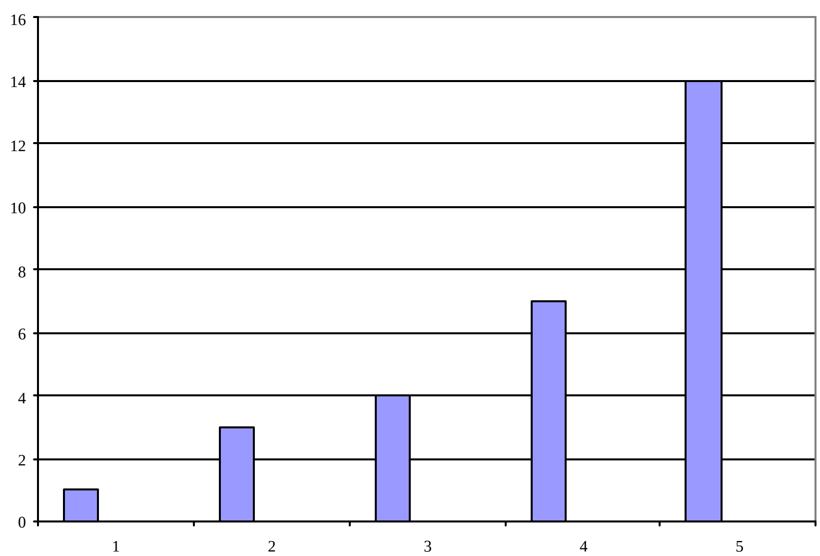
Firms active in staff training often undertake a variety of approaches. One US technology-based firm used a combination of in-house courses and courses developed by its parent but delivered in Australia. They also sent people over to the US to undertake a variety of training options and some US training people come here. It has recently started an interchange between the US and Australia at all levels, ranging from management, technical and other grades.

Figure Q 8: Contribution of MNC to Global Knowledge Flows in Firm



Note: Uses Likert Scale of 1-5 where 1 is "no importance" and 5 is "crucial"

Figure Q 9: Importance of Parent for Access to Knowledge by MNC

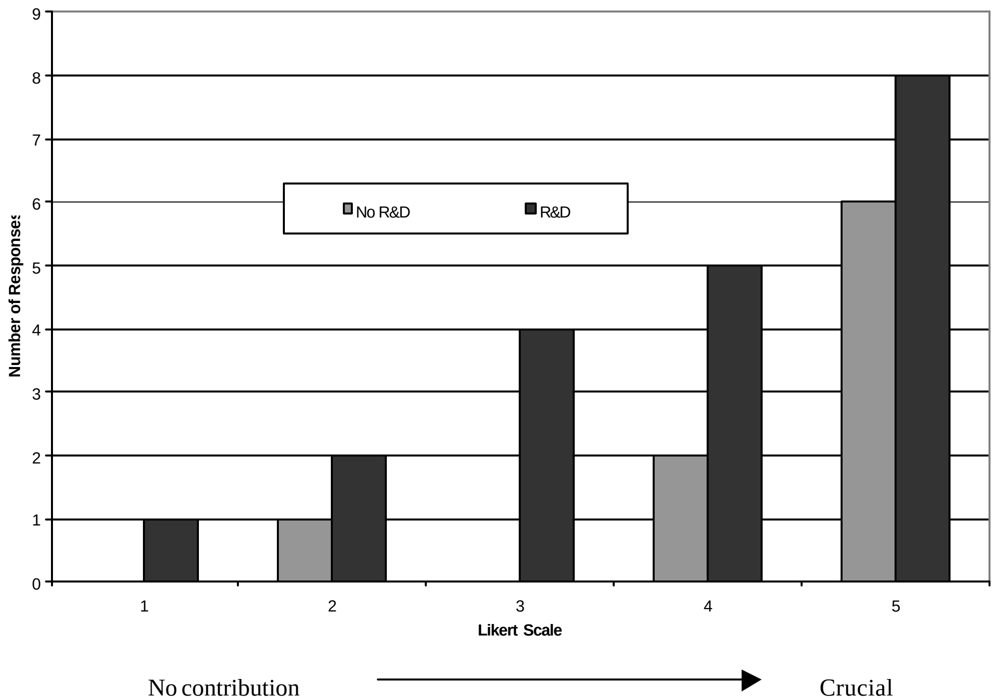


Note: Uses Likert Scale of 1-5 where 1 is "no importance" and 5 is "crucial"

Although Australian subsidiaries tended to rely heavily on the global knowledge that the firm possessed, in several cases the knowledge held by the parent company was merely of some importance and the Australian firm was allowed to develop its own area of expertise.

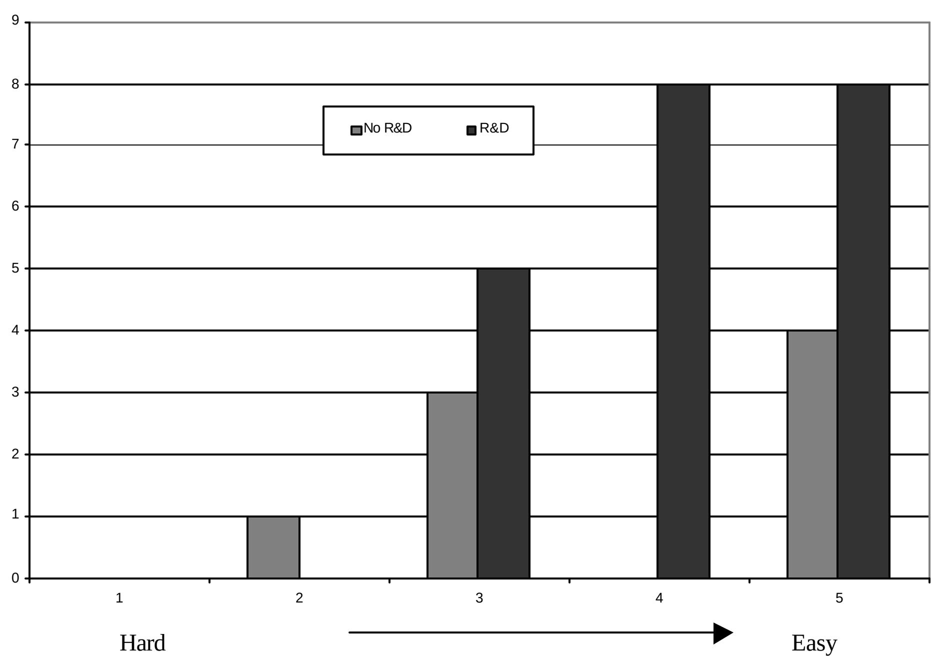
A service industry firm pointed out that the parent company had little expertise that it needed and had very little understanding of the Asia-Pacific region. Similarly, one technology-intensive firm pointed out the Australian firm researches particular products that they think would be in demand by the local market and which could be taken up by the global firm. This respondent specialised in particular fields within the global firm. They did some joint work (about 10% of all projects) with other foreign subsidiaries, but the distance and different time zones preclude more joint work. In some respects these firms may be seen as multi-domestic operations, which are only loosely integrated with the global firm.

Figure Q 10: Respondents' Ranking of Parent Firm's Contribution to Global Knowledge Flows



Source: Company Interviews

Figure Q 11: Respondents' Ranking of Ease of Access to Parent Firm's Knowledge



Source: Company Interviews

Internal Management

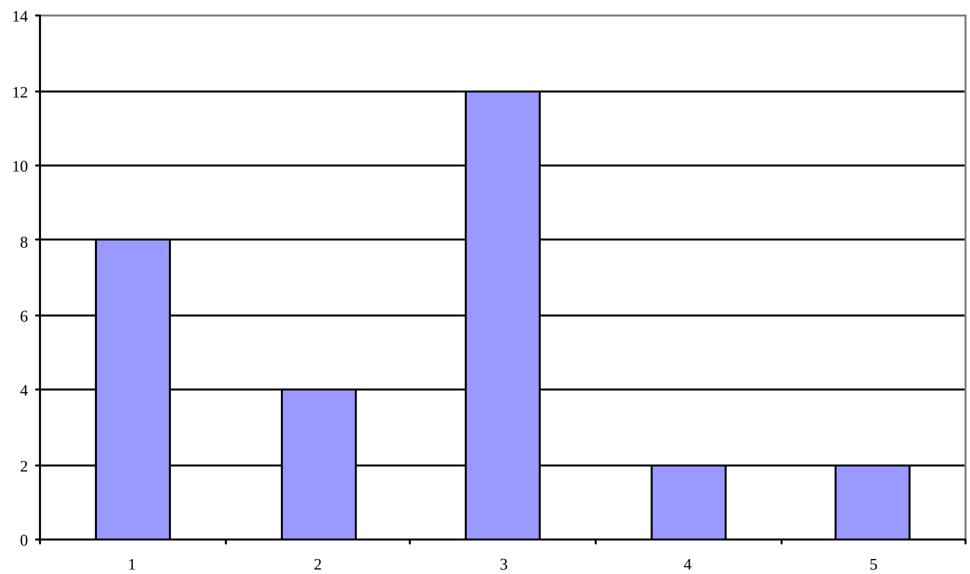
Table Q 19: Bids for Regional or Global Mandates Last Three Years

	RHQ Structure				
Bids for Global/Asia Pacific Mandates	**Asia Pacific**	**NZ/Pacific**	**Sub-Asia**	**None**	**Grand Total**
Yes	7	1	1	5	14
No	4	4	1	8	17
Grand Total	**11**	**5**	**2**	**13**	**30**

Note: Includes firms with no RHQ structure but with centres of excellence or other mandates

Some firms pointed out that their contribution to knowledge development in the global firm varied depending on the particular product or service. For example, one firm had a significant R&D facility with a global mandate in one area of its operations and it ranked its contribution as crucial in global knowledge flows; however, its other activities were primarily concerned with importing products and no research took place in Australia in these other areas.

Figure Q 12: Influence of MNC on Global Decisions



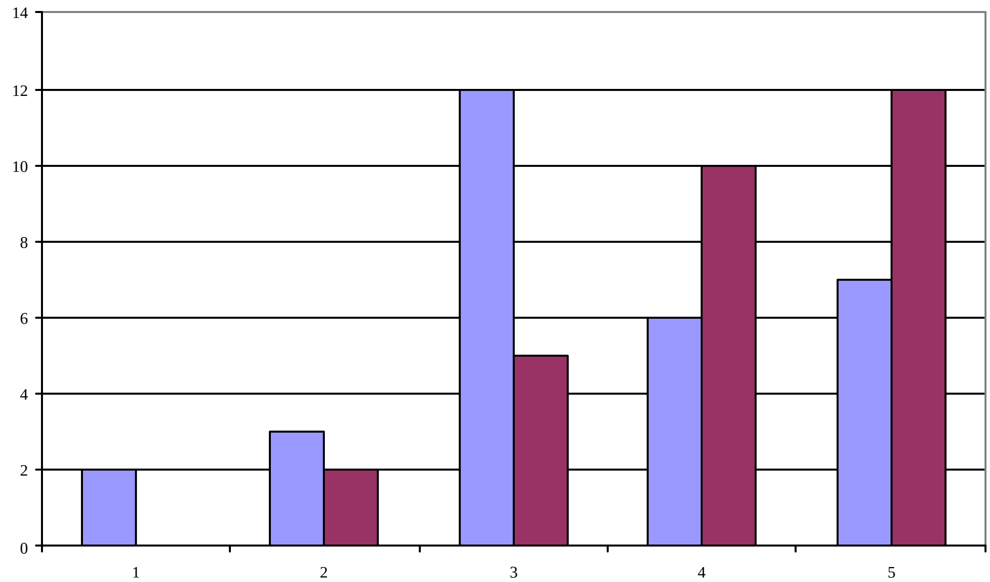
Note: n=28

E-Commerce

Multinational firms were markedly divided in their responses to the importance of e-commerce for their operations. Seven are already using it and have much stronger linkages with other firms. Another group (four firms) have somewhat stronger linkages. However, 10 firms saw no difference in their linkages with other firms, although four of the 10 saw linkages as being more important in three years time. In general, a significant group saw stronger linkages with other firms as a result of e-commerce. A small group are not involved or have a very limited involvement in e-commerce at present. Several firms in this group did not feel that e-commerce had much to offer their respective industries.

Most MNCs, even those not using e-commerce at present, felt that it would be more important in three years time. Several indicated that they would increasingly expect that their suppliers would use e-commerce in the next three years. Several felt that the number of suppliers would decrease, but the volume of business with the remaining suppliers would increase. Furthermore, several respondents pointed out that successful e-commerce links with suppliers depends on building trust .

Figure Q 13: Influence of E-Commerce on Links in Australia Now and in Three Years



Note: Uses Likert Scale of 1-5 where 1 is "no importance" and 5 is "crucial"

However, not all e-commerce problems were external to the firm. One consumer products respondent pointed out that e-commerce initiatives had forced the company to review the accuracy of its internal information and make sure that product specifications for each item were accurate. It sold a huge number of products and it is essential to ensure that every product specification is up-to-date and accurate in the e-commerce system. It is likely this issue is common in the consumer products industry.

For example, one technology-intensive firm said that they are linked electronically to suppliers and the e-commerce linkages to financial services firms were significant. Not all their suppliers had adopted e-commerce and they did not "push" them to adopt such systems. However, all customers were managed electronically and the payments were all electronic. Such a system had saved the firm a large sum and they had avoided bad debts. The respondent's point was that electronic linkages were of major importance in the consumer-end of the business and of moderate significance at the supplier-end. A second example was a service industry firm, which argued that e-commerce linkages from consumers to their web site were very important, whereas linkages with suppliers were not as yet the important and suffered from a lack of common standards.

A third example was a technology-intensive firm, which pointed out that one part of its business was characterised by large orders from customers and that shaving small amounts of the contract price was not a significant issue. Electronic linkages were important between the MNC and its major customers, but they were on a bilateral basis and negotiated separately. It was far more important to build up long-term trust between the MNC and its major customers. The MNC felt that both it and its respective customers benefited from such long-term relationships. However, price was far more important in another part of its business in which most of the customers were SMEs, who were sensitive to small variations in price. E-commerce was much more significant here.

Several firms that had farmers as either suppliers or customers pointed out that most farmers had not adopted IT or were not ready to adopt e-commerce, although one firm expected that in three years time to have more farmers as customers on e-commerce.

A number of firms pointed out that e-commerce was important in parts of their business but not in others and that supply chain management is not simply a matter of electronic communications. Thus electronic linkages between MNCs and major suppliers need to be seen in the context of the broader MNC-supplier relationships outlined earlier. MNCs that had built up close relationships with major suppliers have often also developed e-commerce relationships as well, but they stressed that the building-up of trust and confidence in each other required strong personal relationships as well.

Appendix E: Summary Data from Supplier Survey

Introduction

This section seeks information about your firm so we understand our research sample.

1. Name of firm____
2. Name of person who is completing this survey____________________________
3. Position of person who is completing this survey__________________________
4. How many people (full time equivalents) are employed by your firm

   In Australia 8922 Overseas 8087 Total 15919

5. Which of the following applies to your firm? (place a cross (X) in one box only)

44 Majority (or wholly) Australian -owned 10 Not majority Australian-owned
2 Not stated

6. Are your products and services normally sold to your customers as:

(place an X in one box only)

4 Raw materials for production of goods or services; OR
10 Intermediate inputs that your customer uses to manufacture goods or produce services; OR
36 Finished goods or services where the customer is the end user; OR
5 Finished goods and services where the customer is a distributor or other intermediary
1 Not stated

7. Do you do R&D (research and development) on your own behalf to develop your products and services? (place a cross (X) in one box only)

41 Yes 14 No 1 Not stated

Your Customers

We are interested your relationships with customers that are Australian-based but are subsidiaries of multinationals headquartered overseas (ie are not majority Australian-owned), *(for example, McDonald's Australia, IBM Australia, Parmalat Australia). We are also interested in whether these relationships differ from those with customers that are majority- or wholly Australian-owned. In order to answer these questions please think about your largest customer that is a foreign-owned firm operating in Australia and your largest majority Australian-owned customer*

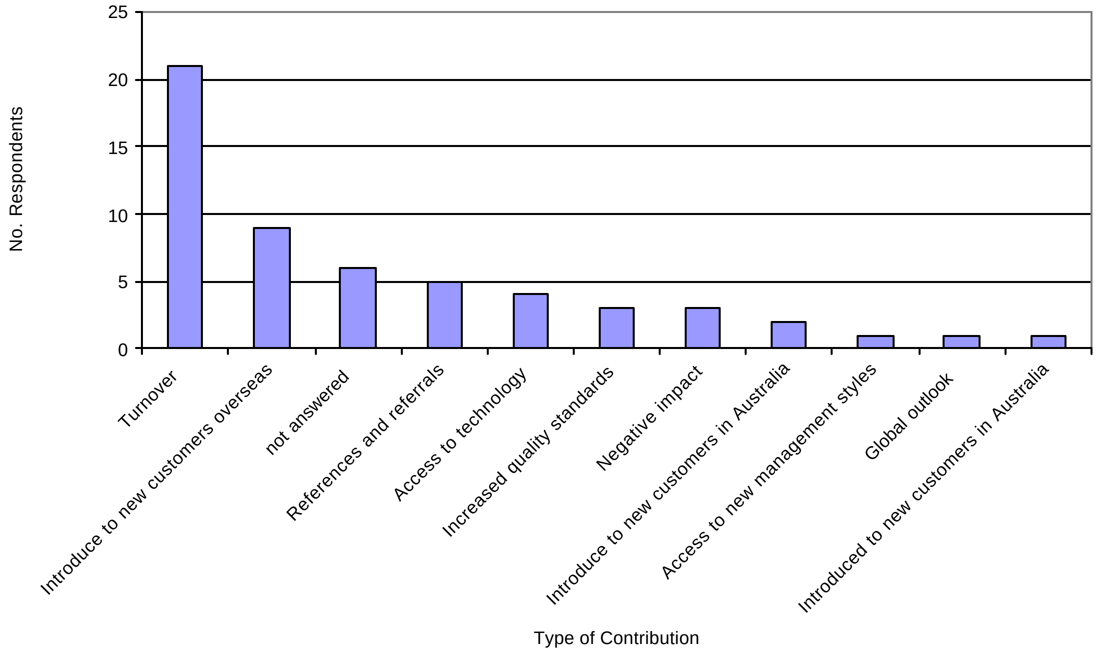
8. The following questions ask you to write a number or word in response to a question about your contracts with these two types of customers. Please fill in all the boxes in the table

	Your largest customer that is a foreign-owned firm operating in Australia	Your largest majority-Australian-owned customer
What percentage of your total turnover is derived from this customer?	31.3% (average)	18.5% (average)
In what city in Australia is this customer headquartered?	Sydney (44.6%) Melbourne (17.8%) Other (28.7%) Not stated (8.9%)	Sydney (37.5%) Melbourne (10.7%) Other (64.2%) Not stated (16.0%)

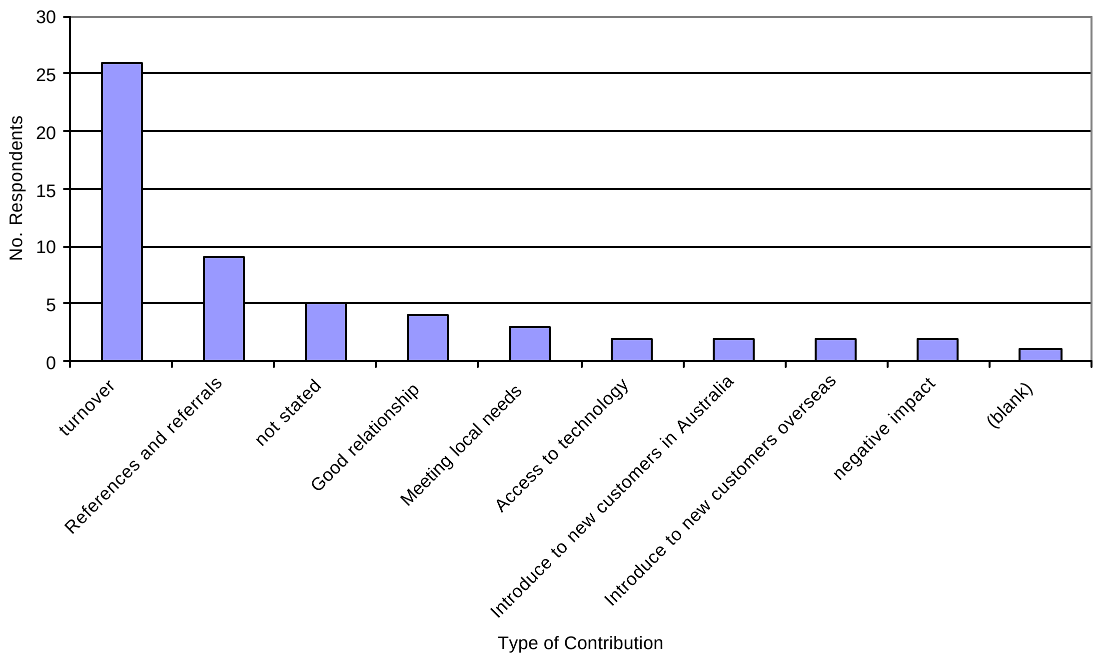
9. The following questions ask you to put a cross in a box to answer *yes*, *no* or *don't know* about your relationship with these two types of customers. Please put one cross (X) in the white columns and one in the grey columns in each line of the table. The first line is a sample.

	Your largest customer that is a foreign-owned firm operating in Australia			**Your largest majority-Australian-owned customer**		
	Yes	**No**	**Don't know or N/A**	**Yes**	**No**	**Don't know or N/A**
SAMPLE ONLY: Does this customer promote distribution of your products		*X*				*X*
Does this customer distribute your products in Australia?	16	31	9	3	42	11
Does this customer distribute your product overseas?	14	35	7	3	42	11
Does this customer train or certify your staff in meeting production quality standards?	14	37	5	7	41	8
Does this customer train or certify your staff in meeting service quality standards?	12	41	3	5	45	8
Does this customer order goods and services from you via an internet-based e-commerce website?	3	50	3	5	45	6
Have sales to this customer helped you to gain access to other markets/ customers in Australia?	31	22	3	36	14	6
Have sales to this customer helped you to gain access to other markets/ customers overseas?	22	29	5	18	32	6
Has there been technology transfer from this customer to your firm?	14	37	3	10	37	9
Do you do R&D specifically for this customer?	26	26	4	19	32	5
Does this customer help you to develop new products or services for them?	20	33	3	25	26	5
Does this customer help you to develop new products or services that you can sell elsewhere?	17	35	4	14	35	7

10. What is the most significant way that foreign-owned customers operating in Australia contribute to your business?



11. What is the most significant way that majority Australian-owned customers contribute to your business?



Strategic Alliances

12. In the last three years, how many strategic alliances or joint ventures have you formed with foreign-owned firms (customers and others) operating in Australia?

107 alliances reported