

THE ENVIRONMENTAL FACTORS THAT IMPACT ON FOREIGN SUBSIDIARIES OPERATING IN AUSTRALIA

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Abstract

This article identifies the environmental factors that impact on established foreign subsidiaries operating in Australia. It also clarifies whether these environmental factors are the same as traditional location determinants which attract the initial foreign direct investment (FDI) into a location. This is important as embeddedness in a host location is in part dependent upon the quality of the advantages offered by the environment in which the subsidiary operates. A survey of 356 foreign MNE subsidiaries from North America, Europe and Japan, operating in Australia revealed that infrastructure, agglomeration, investment image, government support, input costs, government costs, safe environment and market size were the critical factors that impacted on their attitude to the environment in which they operated. Foreign subsidiary attitudes have public policy implications for Australian governments keen on maintaining foreign subsidiary operations in their domain. The key considerations for government are the need to keep taxes and charges low, reduce bureaucratic hurdles for business, maintain good infrastructure and provide more government support post the initial investment.

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INTRODUCTION

The increasing flow of investment monies in the world economy – Foreign Direct Investment (FDI) inflows have grown approximately twelve fold between 1982 and 2001 from USD59bn to USD735bn (UNCTAD, 2002). The growth of FDI has provided challenges for national and regional governments in trying to attract and cement some of those investment inflows into their territories. The challenge for authorities is not only to attract but to also preserve and cement invested assets. Benefits to locations such as employment, capital formation, knowledge and skill transfer, and the formation of specialized industry clusters (Lovering, 2003) are argued to accrue to the location which not only seeks to attract but retain the foreign MNE subsidiary in their domain.

The growth worldwide of dynamic local environments has resulted in locations facing a diminishing ability to influence the MNE which today has many options available to choose from in terms of sites to locate operations (Raines, 2003). Competition for mobile investment has resulted in national and regional governments becoming engaged in “locational tournaments” outbidding each other in trying to attract MNEs to establish ‘greenfield’ operations within their region, but also just as importantly seeking to retain those investments in their domain. Australia in this regard is no exception. Australian ministers (Costello, 2001) and government web sites (e.g. Invest Australia www.isr.gov.au/invest) both at the national and sub-national state level extol the virtues of Australia (including the various States) as a destination for FDI. State governments in Australia have often sought to outbid each other in order to attract foreign MNEs to set up operations in their state and have also sought to take action to prevent MNE subsidiaries from leaving their domain. This underlines the importance and the need to understand and identify the environmental factors which are likely to impact upon foreign subsidiary embeddedness in a location. Embeddedness or the “sticking” to a particular place by subsidiaries can result from head office strategy, subsidiary development, or environmental influence (Birkinshaw & Hood, 1998). The environment can have a significant amount of influence on evolution and success of subsidiaries in specific locations (Benito, Groggaard, & Narula, 2003). Despite this, Benito et al (2003:444) argue that there is a lack of research “relating subsidiary development to exogenous factors that are not firm, network and/or industry specific”.

The literature on the development of subsidiaries through internal factors such as head office strategy, networks and subsidiary management is well established (Benito et al., 2003). Subsidiary evolution is driven by the dynamism of the local business environment in which business operates (Birkinshaw & Hood, 1998). Such locations are influenced by environmental factors that include political economy issues and traditional location determinants which impact on the initial decision to invest in a location (Benito et al., 2003). Location determinants which have been shown through empirical testing to impact on the initial decision of MNEs to locate in a specific place include availability of resource endowments, proximity to clients, market size, market growth, wage costs, other production costs, transportation costs, political stability, cultural and social factors, host government regulations and taxation policy, agglomeration economies, and developed infrastructure among others (Dunning, 1993).

Little attention in the literature on foreign direct investment has been paid on the impact of such environmental factors on the subsidiary once it has been established in a location (Birkinshaw & Hood, 1998) in other words, post the initial investment decision. Pearce (2001:51) in a similar vein argues that “...too much analysis and policy relating to inward investment focuses on short-term issues involving the attraction of new FDI. Not enough attention is paid to the subsequent medium and longer-term concerns of securing a sustained contribution to processes of industrialization and development from the operations established.” This study seeks to address this deficiency by:

1. identifying the key environmental factors that impact upon the foreign subsidiaries that have already established operations in Australia
2. determining whether the environmental factors related to subsidiary embeddedness are the same as those factors that attract the initial FDI to a location, and
3. examining the attitudes of these foreign subsidiaries towards the environment in which they operate.

The remainder of the paper considers briefly how the MNE came into existence and the impact of the environment on the MNE. It then sets out the methodology followed by a discussion of results of the study. Policy recommendations are suggested in the conclusion.

FOREIGN DIRECT INVESTMENT AND THE MNE

In a perfectly competitive market the need to engage in international production and foreign direct investment would not exist (Kindleberger, 1969). The breach of perfect market conditions results in the destruction of free trade and its replacement with the MNE (Rugman, 1981). The MNE thus develops and comes into existence due to 'imperfections in the market' (Caves, 1971; Hymer, 1976; Kindleberger, 1969)

Hymer (1976) argued that for foreign MNEs to invest abroad and engage in foreign production, they must possess firm specific advantages that are large enough to outweigh the disadvantages they face in operating in a foreign country. A firm develops or exploits firm specific advantages (knowledge, patents, technology) in operating internationally. These endogenous advantages are moved internationally via the internal market of the MNE, enabling the MNE to control these. These ownership advantages (O) enhance the competitive nature of the firm compared to other competing firms (Dunning, 1993) and represents the first leg of the triumvirate that explains the MNE and international production under Dunning's Eclectic Paradigm (Dunning, 1980, 1988).

In distinguishing themselves from Hymer's argument, Buckley and Casson (1976), argued the MNE as a institution seeks to bypass the market by internalizing operations. Internalization as an explanation for the growth of the MNE is underpinned by Coasian institutional theory of the firm. Coase (1937) argued that the operation of markets is not costless. Firms avoid the market by internalizing transaction costs. The major significance of internalization for the MNE is that it explains its multi-plant operation over space (Casson, 1982). Spatial considerations are thus intrinsically linked to the issue of internalization reflecting the need for MNEs to minimize transaction costs even after having established their subsidiary operations in a specific location. Internalization incentives (I) make up the second leg of the triumvirate.

The third leg of Dunning's Eclectic Paradigm (Dunning, 1980, 1988) that explains the MNE and international production are location advantages (L). The foreign market must offer some location advantage making it profitable to produce there, in comparison to exporting the product to the same market (Dunning, 1993). One such location advantage cost minimization suggests that a MNE will select the least costly location to locate its operations (Buckley, 1988).

MNE SUBSIDIARY AND THE ENVIRONMENT

MNEs are inherently 'footloose' so that once established and operations are proceeding effectively, higher real wages and input costs emerging in a location may mean that MNEs may seek to migrate operations to other locations that replicate the initial conditions found in the former location. However such consequences are not inevitable if subsidiary operations can be embedded into the local economy, thus 'sticking' to the location (Pearce, 2001). According to Berkinshaw and Hood (1998), after the initial investment decision has been made to locate in a

specific place, MNE subsidiary evolution or embeddedness in a location develops as a result of three factors. *Head office assignment* whereby central worldwide headquarters determines along which trajectory the subsidiary will follow in the future; *subsidiary choice* whereby subsidiary management takes decisions which impact on the subsidiary's evolution within a location and they refer to *local environmental determinism* in that the role of the subsidiary will be dependent upon its functioning and interaction with the opportunities and constraints in the local market. Identifying the environmental factors that impact upon subsidiary embeddedness is inherently linked to environmental determinism.

Benito et al (2003) challenge Pearce's (2001) assertion that MNEs are inherently 'footloose'. They in essence agree with Birkinshaw and Hood (1998) and argue that whether a subsidiary is likely to embed itself in a host location is dependent upon the quality of the location advantages offered by the location. They also point out that MNEs prefer to engage in repeat investment in locations where they have prior experience despite less than optimal results. MNEs that have invested in high value adding activities often find themselves 'staying put'. Embedding with local institutions, suppliers, and customers, establishing links both formal and informal often means that firms are not keen to change and are content to maintain operations so long as they maintain competitiveness (Benito et al., 2003). Exiting a location often means suffering costs associated with exiting but also incurring start up costs in a new location which can be substantial (Narula, 2002). This then suggests that where a MNE is comfortable with the environment in which its subsidiaries operate, it may be content to stay and keep investing the location rather than divesting its operations.

Studies carried out by Birkinshaw and Hood (1997) in Canada and Scotland found that local environmental characteristics factor into the decision to invest in or upgrade a subsidiary. Despite this potential influence of the local environment on subsidiary development, evidence of the relationship between the two is rather limited (Birkinshaw & Hood, 1998)

In examining MNEs embeddedness within location Fuller and Phelps (2004) surveyed companies in the electronics-related sector in Wales and Ireland. They sought to determine the environmental factors which encouraged repeat investment among foreign MNEs, and found that traditional cost-based advantages relating to labour including proximity to market, grant assistance and tax incentives (with regard to Ireland) which were also associated with the initial investment location decision were also important in the decision to repeat investment.

These factors were considered more important than after-care services (the provision of post investment support by investment agencies taking the form of incentives, grants, subsidies, tax holidays, or other location benefits to ensure the subsidiary stays established in the location) in attracting repeat investment into both Wales and Ireland. This is in contrast to agglomeration economies, transport and communication infrastructure and transport costs which were of less importance than after-care services in the repeat investment process of subsidiary establishments (Fuller & Phelps, 2004). Fuller and Phelps (2004) however did note this issue required more in-depth analysis considering the qualitative nature of their inquiry.

Consequently, there is an important need to understand and to identify the key environmental factors that impact upon foreign subsidiary embeddedness in a location and to determine whether these factors are the same as those factors that attract the initial FDI to a location.

Phelps and Fuller (2000) argue that the role of the multinational and its status within a region is closely related to the track record in winning repeat investment. Yet comparatively little is known about what drives repeat investment and what local efforts are required to influence corporate decisions. This becomes even more pronounced for middle ranking developed market economies such as Australia which face cost and market disadvantages often resulting in the "uprooting" and relocation of established subsidiary operations to more cost effective developing market economies in Asia.

This study focuses on Australia which has traditionally opened its economy to foreign capital encouraging MNEs to locate their operations within its shores. Australia's economic development into an industrialised nation can be largely attributed to the inflow of foreign capital (D. Bryan & Rafferty, 1998; D. Bryan & M. Rafferty, 1998; Thorburn, Langdale, & Houghton, 2002). The reliance on foreign investment in Australia underpinned the development of rural, mining, housing and manufacturing industries and foreign capital borrowings supplied the finance for the public infrastructure of the colonies prior to Federation (Arndt, 1977; Kasper, 1998). Australia continues to attract foreign direct investment (FDI). In 2002 Australia recorded FDI inflows of USD14 billion, the highest level on record since the early 1990s (OECD, 2003).

Although there have been some studies on the determinants of inward FDI into Australia e.g. from America (Brash, 1966), from Japan (Nicholas, Purcell, Whitwell, & Kimberley, 1996), and empirical analysis of secondary investment data (Tcha, 2001; Yang, Groenewold, & Tcha, 2000), there are a lack of studies that address the issue of environmental determinants of location post the initial attraction of FDI decision into Australia. It is this paucity that this study seeks to redress.

METHOD

Sampling and Data Collection

Participants in the study consisted of foreign MNEs subsidiaries from North America, Europe and Japan that have established subsidiary operations in Australia. The non-existence of a register of foreign MNEs in Australia both at the national and state level meant that the sample had to be compiled from a range of available and existing directories from the relevant foreign Chambers of Commerce which operate in Australia. The Chambers' directories provided a list of the known population of home country nationals that operate in Australia. These directories were the source of information regarding details of the companies, which included sector of operation, name of parent company, name and address of local subsidiary and the name and addresses of the CEO or Senior Executive of the MNE subsidiary to whom the questionnaire was directed. The foreign Chambers of Commerce directories provided the sampling frame for the survey. Questionnaires (inclusive of a covering letter and reply paid envelope) were distributed by post in March and April 2004 to 2200 foreign MNEs from North American, European and Japanese subsidiaries operating in Australia. Japanese firms were sent both an English and Japanese version of the questionnaire in an effort to increase the response rate. This was also complemented by follow up phone calls. Two hundred and thirty-six questionnaires were returned as 'unknown address' leaving 1964 eligible respondents. From these 356 questionnaires were returned resulting in an overall response rate of 18.1%. The response rate for the different geographic origin of the subsidiary revealed significant differences in the response rates. Japanese subsidiaries had a response rate of approximately 30%, European 18% and North American 12%. Non-response bias was checked by examining the firm attributes of the sample, they being industry and location within Australia and these showed no clear differences between responding and non-responding companies.

Questionnaire

The questionnaire presented the survey participants with a list of 50 items derived from the literature and studies on locational determinants. The fifty items were separated into two separate scales. The first scale consisted of 19 items that asked respondents their attitudes to national environmental factors. The participants were asked to respond to the following *...given the benefit of your experience in Australia please indicate the extent to which you disagree or agree with the following statement*. The second scale consisted of 31 items that asked questions from the sub-national perspective. The participants were asked to respond to the following *...to what extent do you disagree or agree with the following statements regarding your present city, regional or rural location*. The responses were assessed using a 5 point Likert scale with scores ranging for each scale from 1=strongly disagree to 5=strongly agree with 3 being the neutral midpoint.

Method of Analysis

Descriptive statistics were used to examine the characteristics of the sample. Factor analysis was then conducted on the items from the two scales in the questionnaire to determine and examine their underlying structure. From the results of the factor analysis, composite scales of factors were constructed and tested for internal consistency and reliability. Mean scores, standard deviations and correlations among the factors were calculated.

RESULTS AND DISCUSSION

Characteristics of the Sample

The sample comprised 356 foreign subsidiaries that operate in Australia. The geographic origin of the sample reflects a relatively equal spread among the Triad of economic powers: North American companies n=124 (34.8%), European n=120 (33.7%) and Japanese n=112 (31.5%). Industry categorization of the sample revealed that other than firms involved in primary industry which made up just over 10% of the sample the remaining firms were relatively equally split between firms in manufacturing, wholesale /retail and the services industries. Their mode of entry into Australia revealed that more than half (57.9%) were wholly owned foreign subsidiaries established through new ventures (greenfield investments), approximately 25% were takeovers through the acquisition of local firms and the remaining 16.3% of the sample identified themselves as a joint venture or a merger with an Australian Company.

The location of the firms in the sample indicate that the overwhelming majority (86.2%) are located in the two largest economies, NSW and Victoria and 87% of the respondents are situated in a city/metropolitan location, suggesting the strength of both Sydney and Melbourne in attracting the bulk of foreign direct investment. Around three-quarters firms (76.1%) were based in either Sydney or Melbourne. Table 1 provides a summary of the characteristics of the sample.

Table 1 about here

Factor Analysis

A principal components factor analysis with oblique (promax) rotation was conducted to examine the underlying relationships among 50 items in two scales. The combination of the two scales for the exploratory factor analysis was considered appropriate as locational determinants are not mutually exclusive in terms of national or sub-national factors and include a combination of both.

There were 15 factors (components) with eigenvalues greater than one. However further inspection of the scree plot supported an 11 factor solution. Ultimately only eight factors were considered appropriate after consideration of the loadings the alpha scores and a logical interpretation of the factors. A cut off score of 0.4 was used to determine the items which loaded onto the factors. In terms of internal consistency all the measure had an acceptable alpha score ranging from .79 for *Agglomeration* to .61 for *Safe Environment*. Nunnally (1978) suggested that in an exploratory study an alpha value of 0.6 is acceptable in determining the loaded factors. The factors their item loadings, pattern coefficients and their variances and alpha scores are indicated in Table 2.

Table 2 about here

Factor 1 consisted of six items and was labeled *Infrastructure*. This factor is consistent with the literature and studies of location determinants. A well developed infrastructure in a location influences the attractiveness of that location to future foreign investment (Dunning, 1993). Investors need to know that a location with an established transport and communication infrastructure which is reliable and efficient results in reduced costs of operation, making it attractive for FDI (Cheng & Kwan, 2000).

The second factor was labeled *Agglomeration* which included seven items. It is argued that spatial concentration of industries allows for a grouping of the market for workers with special skills, the development of specialized inputs and enables firms to exploit technological and knowledge spillovers which originate in this specialized location (Marshall, 1898). Krugman (1991) has added to Marshall's cluster theory by suggesting firms in cluster gain from increasing returns to scale, transportation costs and knowledge spillovers.

Several studies have concluded that locations with a number of foreign MNEs operating in their midst are more likely to attract additional investments than locations which have few MNEs operating in their domain (Hogenbirk & Narula, 2004). Wheeler and Mody (1992) found that foreign firms which are established in a location act as a determinant of new FDI flows. Braunerhjelm and Svensson (1996) found agglomeration effects for high tech Swedish firms which tended to locate in areas of similar specialized production.

The third factor was labeled *Investment Image* and included five items. This factor in essence encapsulates an overall image and appropriateness of the location for investment. It is underpinned by all the other factors identified incorporating the political, economic, social and general environment in which the foreign MNEs operate.

The fourth factor was labeled *Government Support* and included five items. This factor incorporates items relating to post investment support offered by government or government agencies. Birkinshaw and Hood (1997) found an increasing importance in the role inward investment agencies whose brief extends beyond the attraction of greenfield investments to incorporate maintenance and encouragement of established subsidiaries to increase their investment. The role of investment agencies was also highlighted in terms of the after-care services they offer subsidiaries. Host governments either directly or through investment agencies provide post investment support often in the belief that they can influence further development and embeddedness of MNC subsidiaries in their locations. (Fuller & Phelps, 2004; Phelps, Mackinnon, Sone, & Braiford, 2003).

The fifth factor was labeled *Input Costs* and included four items. The dominating or stronger items which loaded on this factor were related to labour costs, as distinct from real estate and transport costs. Minimizing costs in order to increase long term profits acts as an inducement for MNEs to locate operations where there are low production costs. Low wages means low production costs making it attractive to MNEs to take advantage of locations offering such conditions. However the evidence suggesting labour costs are a determining factor in attracting FDI is contradictory. Where Dunning (1980) and Culem (1988) found labour costs did not influence investment decisions among developed countries for developing countries labour cost differentials were found to be a significant determinant of FDI (Wheeler & Mody, 1992).

The sixth factor was labeled *Government Costs* and included four items. The items that loaded on to this factor were all related to the costs imposed by government whether in the form of bureaucratic "red tape" costs or direct governments cost such as taxation. When these costs are high, they increase the cost of doing business in a location and impact negatively on firms. Yamada and Yamada (1996) found that lower corporate taxes are an important determinant of FDI by Japanese firms investing in the European Community. Tax differences impact on the location of FDI (Bartik, 1985; Woodward, 1992) This is pertinent to Australia where despite a national tax regime at the Federal level, taxation and charges can vary among the states.

The seventh factor was labeled *Safe Environment* and included four items. Risks associated with political and economic instability in host environments act as a deterrent to FDI (Dunning, 1993; Kogut, 1989; Loree & Guisinger, 1995) Agarwal (1980) found a negative correlation between FDI and political instability. Such instability leads investors to believe that a change of national or regional governments may lead to policy changes regarding foreign investments thus precipitating reluctance to invest in such locations. (Loree & Guisinger, 1995) showed that the liberalisation of national restrictions on inward investment had a significant impact on the foreign involvement of MNEs.

The eighth factor was labeled *Market Size* and included two items. Market size is considered an important pull factor in terms of determining FDI. Empirical studies (Dunning, 1980; Papanastassiou & Pearce, 1990; Scaperlanda, Balough, & Lunn, 1983; Woodward, 1992) have shown that the market potential and size of market act as a significant factor in attracting FDI. A larger market provides MNEs with the opportunity to gain greater profits through increased sales and the ability to exploit economies of scale in production.

Relationships among the factors

Table 3 about here

A number of inter-correlations among the composite measures of environmental determinants were significant. The strongest correlation was between Infrastructure and Investment Image ($r=.42$, $p<.01$) suggesting a moderate positive correlation between the two constructs. This correlation suggests that a direct relationship exists between attitudes to infrastructure and attitudes to the investment image of the location. Also a moderate positive correlation was evident between government support and agglomeration ($r=.41$, $p<.01$) indicating that positive attitude towards agglomeration is reflected in positive attitudes towards government support.

A number of factors correlated negatively. For example government support had a negative relationship with government costs ($r= -.29$, $p<.01$) suggesting that a positive attitude towards government support is inversely related with the levels of government costs. Also there was a negative correlation between investment image and market size ($r=-.24$, $p<.01$) indicating that there exists a positive attitude towards the investment image is inversely related to the size of the market in Australia.

An examination of the mean scores of the eight composite factors reveals that all but one of the factors (i.e. Government Support) were rated equal to or above the midpoint. The highest mean scores of the sample revealed that the foreign MNE subsidiaries consider Australia to have a Safe Environment ($M=4$) for investment. The foreign subsidiaries in the sample saw Australia in a positive light in terms of their continued operations. This was in marked contrast to the lowest mean score for the factor Government Support ($M=2.6$) suggesting that foreign MNEs subsidiaries had a negative attitude towards the degree of post investment support being received from government or government agencies in Australia. Other factors worth noting were positive attitudes by the respondents towards available infrastructure and the investment image of the location countered by negative attitudes towards input costs and government costs. An ambivalent attitude towards the size of the market in Australia as well as the impact of agglomeration economies was evident among the respondents. Given the relatively small size of the local market in Australia these results are not unexpected.

POLICY RECOMMENDATIONS AND CONCLUSION

This paper has identified eight environmental factors that impact upon established foreign subsidiary operations in the developed small market economy of Australia. Using data from 356 foreign subsidiaries operating in Australia from North America, Europe and Japan, this study was able to identify the following factors: infrastructure, agglomeration, investment image, government support, input costs, government costs, safe environment and market size.

This study has reaffirmed the findings by Fuller and Phelps (2004) that some of these environmental factors are the same as the traditional cost based factors that seek to attract the initial FDI. This study has addressed and extended Fuller and Phelps' (2004) call for a more in-depth analysis of these factors considering the qualitative nature of their study. This study based on an empirical quantitative investigation has revealed that the environmental factors related to subsidiary embeddedness in Australia are in the main the same as those factors that attract the initial FDI to a location.

This study is important because it provides information to governments enabling the formulation of public policy initiatives. Such initiatives are aimed at encouraging the retention and the embedding of foreign direct investment within locations helping stimulate the overall economic welfare of the region.

The positive attitude towards the developed infrastructure in Australia suggests that governments need to keep investing in infrastructure programs in order to maintain and enable business to carry on its operations. This is timely in light of the present discussion in Australia about the lack of investment in future infrastructure capability.

Agglomeration economies suggest that countries and localities that attract companies to establish operations in their domain help attract other like-industry companies to follow thus helping to develop a region economically. The results suggest that foreign subsidiaries in Australia did not consider the impact of agglomeration economies to be very significant. Consequently, governments may need to do more through the establishment of industrial policy highlighting the importance of industries to certain locations or through the provision of incentive programs to attract major investors into their location (Mudambi, 1995). Such a policy has the aim of encouraging the formation of industry clusters within a location helping stimulate economic activity.

The respondents in the sample reacted negatively to the imposition of taxes and charges imposed by governments. This aspect suggests that governments both Federal and State need to consider the reduction of costs of doing business. Often seen as bureaucratic hurdles to overcome, business sees these charges (they vary at the State level) as an imposition and detrimental to them seeking to carry on business in a location.

The negative attitude towards government support suggests that government and investment agencies need to consider granting more after care services to foreign MNE subsidiaries. This reaction by foreign subsidiaries in Australia in terms of after care services provided by government reaffirms the findings of Fuller and Phelps (2004) who found that after care services were considered important in encouraging repeat investment of subsidiary establishments.

The findings of this study suggest that governments in developed economies like Australia need to identify environmental advantages in order to maintain and continue to reap the benefits of foreign companies operating in their midst. Facing cost disadvantages in comparison to developing countries, the strength of many developed countries is the overall business-friendly and attractive environment which they offer foreign investors. This study suggest that in seeking to maintain this positive investment image, Australian governments need to keep taxes low, reduce bureaucratic hurdles for business, maintain good infrastructure and provide more government support after the initial investment.

Future research in the area requires greater analysis of the environmental factors identified and whether any discernable differences in attitudes can be detected among foreign subsidiaries in their evaluation of Australia as a location. Can differences be detected on the basis of the subsidiaries' geographic origin, industry, size and years of operation in Australia? Also a valid line of inquiry and worthy of future investigation is whether these environmental factors identified lead to satisfaction with a location and encourage repeat investment in the location. The current study needs to be replicated to examine whether similar trends are evident in other countries.

REFERENCES

- Agarwal, J. P. (1980). Determinants of Foreign Direct Investment: A survey. *Weltwirtschaftliches Archiv*, 116(4), 739-773.
- Arndt, H. W. (1977). Foreign Investment. In J. P. Nieuwenhuysen & P. J. Drake (Eds.), *Australian Economic Policy*. Carlton, Australia: Melbourne University Press.
- Bartik, T. J. (1985). Business Location Decisions in the United States: Estimates of the Effects of Unionization, Taxes and Other Characteristics of States. *Journal of Business and Economics Statistics*, 3(1), 14-22.
- Benito, G., Groggaard, B., & Narula, R. (2003). Environmental influences on MNE subsidiary roles: economic integration and the Nordic countries. *Journal of International Business Studies*, 34, 443-456.
- Birkinshaw, J., & Hood, N. (1997). An Empirical Study of Development Processes of Foreign-owned Subsidiaries in Canada and Scotland. *Management International Review*, 37(4), 339-364.
- Birkinshaw, J., & Hood, N. (1998). Multinational Subsidiary Evolution: Capability and Charter Change in Foreign-Owned Subsidiary Companies. *The Academy of Management Review*, 23(4), 773-795.
- Brash, D. T. (1966). *American Investment in Australian Industry*. Canberra.
- Braunerhjelm, P., & Svensson, R. (1996). Host Country Characteristics and Agglomeration in Foreign Direct Investment. *Applied Economics*, 28(7), 833-840.
- Bryan, D., & Rafferty. (1998). *The Global Economy in Australia: global integration and national economic policy*. St. Leonards, NSW: Allen & Unwin.
- Bryan, D., & Rafferty, M. (1998). *The Global Economy in Australia: global integration and national economic policy*. St. Leonards, NSW: Allen & Unwin.
- Buckley, P. (1988). The Limits of Explanation: Testing the Internalization Theory of the Multinational Enterprise. *Journal of International Business*(Summer), 181-193.
- Buckley, P., & Casson, M. (1976). *The Future of the Multinational Enterprise*. London: MacMillan.
- Casson, M. (1982). Transaction Costs and the Theory of the MNE. In A. M. Rugman (Ed.), *New Theories of the Multinational Enterprise*. New York: St. Martins Press.
- Caves, R. E. (1971). International Corporations: The industrial economics of foreign investment. *Economica*, 38, 1-27.
- Cheng, L. K., & Kwan, Y. K. (2000). What are the Determinants of the location of Foreign Direct Investment? The Chinese Experience. *Journal of International Economics*, 51(2), 379-400.
- Coase, R. H. (1937). The nature of the firm. *Economica*, 4(November), 386-405.
- Costello, P. (2001, April 23, 2001). *Foreign Investment Proposal -Shell Australia Investments Limited's Acquisition of Woodside Petroleum Limited*. Retrieved December 12, 2003, from www.treasurer.gov.au/tsr/content/pressreleases/2001/025.asp?pf=1
- Culem, C. (1988). The Locational Determinants of Direct Investment Among Industrialised Countries. *European Economic Review*, 32, 885-904.
- Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, 11(1), 9-31.
- Dunning, J. H. (1988). The Eclectic Paradigm of International Production: A restatement and some possible extensions. *Journal of International Business Studies*, 19(Spring), 1-32.
- Dunning, J. H. (1993). *Multinational Enterprises and the Global Economy*. Wokingham England: Addison-Wesley.

- Fuller, C., & Phelps, N. A. (2004). Multinational Enterprises, Repeat Investment and the Role of Aftercare Services in Wales and Ireland. *Regional Studies*, 38(7), 783-801.
- Hogenbirk, A., & Narula, R. (2004). Location and agglomeration of FDI in The Netherlands: implications for policy. In *MERIT -Infonomics Research Memorandum series*. Maastricht: Maastricht University.
- Hymer, S. (1976). *The International Operations of National Firms: A Study of Direct Foreign Investment*. Cambridge MA: MIT Press.
- Kasper, W. (1998). Open for Business? *Issue Analysis*(1).
- Kindleberger, C. (1969). *American Business Abroad*. Cambridge MA: MIT Press.
- Kogut, B. (1989). Research Note and Communications: A note on global strategies. *Strategic Management Journal*, 38(2), 383-389.
- Krugman, P. (1991). Increasing Returns and Economic Geography. *Journal of Political Economy*, 99(3), 483-499.
- Loree, D., & Guisinger. (1995). Policy and Non-Policy Determinants of US Equity Foreign Direct Investment. *Journal of International Business Studies*, 26(2), 281-299.
- Lovering, J. (2003). MNCs and Wannabes - Inward Investment, Discourses of Regional Development, and the Regional Service Class. In N. A. Phelps & P. Raines (Eds.), *The New Competition for Inward Investment*. Cheltenham UK: Edward Elgar Publishing Limited.
- Marshall, A. (1898). *Principles of Economics: Vol.1*. London: Macmillan.
- Mudambi, R. (1995). The MNE Investment Location Decision: Some Empirical Evidence. *Managerial and Decision Economics*, 16(3), 249-257.
- Narula, R. (2002). Innovation systems and 'inertia' in R&D location: Norwegian Firms and the role of systemic lock-in. *Research Policy*, 31, 795-816.
- Nicholas, S., Purcell, P., Whitwell, G., & Kimberley, S. (1996). Japanese Investment in Australia: The Investment Decision in Manufacturing, Tourism and Financial Services. *Pacific Economic Papers*, 256, 1-24.
- Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw-Hill.
- OECD. (2003). *Trends and Recent Developments in Foreign Direct Investment*. OECD.
- Papanastassiou, M., & Pearce, R. (1990). Host-country Characteristics and Sourcing Behaviour of UK Manufacturing Industry. *University of Reading, Department of Economics, Paper Series B*, 7, 140.
- Pearce, R. (2001). Multinationals and Industrialisation: The Bases on 'Inward Investment' Policy. *International Journal of the Economics of Business*, 8(1), 51.
- Phelps, N. A., & Fuller, C. (2000). Multinationals, Intracorporate Competition, and Regional Development. *Economic Geography*, 76(3), 224-243.
- Phelps, N. A., Mackinnon, D., Sone, I., & Braiford, P. (2003). Embedding the Multinationals? Institutions and Development of Overseas Manufacturing Affiliates in Wales and North East England. *Regional Studies*, 37(1), 27-40.
- Raines, P. (2003). Flows and Territories: the New Geography of Competition for Mobile Investment in Europe. In N. A. Phelps & P. Raines (Eds.), *The New Competition for Inward Investment*. Cheltenham UK: Edward Elgar Publishing Limited.
- Rugman, A. M. (1981). *Inside the Multinationals*. London: Croom Held Ltd.
- Scaperlanda, A. E., Balough, A., & Lunn, J. (1983). Determinants of US direct investment in the EEC Revisited. *European Economic Review*, 21(3), 381-390.
- Tcha, M. (2001). *A Note on Australia's Inward and Outward Direct Foreign Investment*. Nedlands, WA: Department of Economics, University of Western Australia.

- Thorburn, L., Langdale, J., & Houghton, J. (2002). *Friend or Foe? Leveraging Foreign Multinationals in the Australian Economy*. Retrieved May 4, 2003, from www.abfoundation.com.au
- UNCTAD. (2002). *World Investment Report*. Geneva: United Nations.
- Wheeler, D., & Mody, A. (1992). International investment location decisions - The case of U.S. firms. *Journal of International Economics*, 33, 57-76.
- Woodward, D. P. (1992). Locational Determinants of Japanese Manufacturing Start-ups in the United States. *Southern Economic Journal*, 33(1/2), 57-76.
- Yamada, T., & Yamada, T. (1996). Country integration and Japanese foreign direct investment in the EC. *Contemporary Economics Policy*, 14(1), 48-58.
- Yang, Y. Y. J., Groenewold, N., & Tcha, M. (2000). The Determinants of Foreign Direct Investment in Australia. *The Economic Record*, 76(232), 45-54.

Table 1: Characteristics of MNE Subsidiary Respondents (N=356)

	<i>f</i>	%
Origin of Subsidiary		
North America	124	34.8
Europe	120	33.7
Japan	112	31.5
Industry		
Primary	38	10.7
Manufacturing	98	27.5
Wholesale/Retail	117	32.9
Services	103	28.9
Years of Operation in Australia		
1-5	53	14.9
6-10	56	15.7
11-20	106	29.8
21-40	105	29.5
40+	26	7.3
No response	10	2.8
Size of Subsidiary (no. of employees)		
1-20	107	30.1
21-100	135	37.9
101-200	51	14.3
201-500	32	9.0
501+	31	8.7
Location		
City/Metropolitan	309	86.8
Regional/Rural	46	12.9
No response	1	0.3
State Located		
NSW	194	54.5
Victoria	113	31.7
Other	49	13.8
City (n=271)		
Sydney	170	62.7
Melbourne	101	37.3
Mode of Entry		
Greenfield	206	57.9
Acquired	90	25.3
Joint Venture/Merger	58	16.3
No response	2	0.6

Table 2: Results of Factor Analysis

	<i>Infra</i>	<i>Agglom</i>	<i>Image</i>	<i>Govt</i>	<i>Costs</i>	<i>GovCost</i>	<i>Safenv</i>	<i>Market</i>
Dev local infra	.77							
Dev. transp. infra	.77							
Dev Comm Infra	.66							
High qual. lifestyle	.64							
Bus/Gov. Services	.56							
Reliable workforce	.42							
Co-op Atmosphere		.72						
Concentration of firms		.69						
Work formal/informal		.61						
Work with customers		.60						
Network of Links		.52						
Scientific Knowledge		.51						
Entrpre. Activity in loca.		.43						
Aus. +ve invest image			.85					
Eco enviro good to invest			.84					
Local enviro good to inv			.62					
Location +ve image			.53					
Aus. good for exports			.53					
State Inv Agency +ve				.77				
Inv Aust. +ve impact				.73				
State, high post supp				.68				
Fed. high post supp				.60				
FDI friendly policies				.43				
Unskilled lab expensive					.82			
Skilled lab expensive					.79			
Real Estate. expensive					.47			
Transport costs - high					.41			
Red tape federal						.70		
Red tape local						.69		
Fed tax too high						.67		
State tax too high						.51		
Aus safe to invest							.69	
Low terror threat							.62	
Stable political climate							.54	
Safe for families							.51	
Low growth in market								.79
Aus. market too small								.78
Eigenvalue (pre-rotation)	6.9	4.3	3.0	2.2	1.8	1.8	1.6	1.5
% of variance explained	13.7	8.5	6.1	4.2	3.6	3.5	3.2	3.0
Alpha	.75	.79	.76	.77	.67	.65	.61	.73

Table 3: Means, Standard Deviations and Correlations Among the Measures of Environmental Determinants

Factor	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Infrastructure	3.6	0.52	--							
2 Agglomeration	3.2	0.57	.35**	--						
3 Investment Image	3.5	0.57	.42**	.21**	--					
4 Govt Support	2.6	0.60	.15**	.41**	.30**	--				
5 Input Costs	3.3	0.62	-.04	.15**	-.18**	-.07	--			
6 Govt Costs	3.5	0.63	-.04	-.05	-.17**	-.29**	.17**	--		
7 Safe Environment	4.0	0.54	.29**	.01	.38**	.11*	-.25**	-.07	--	
8 Market Size	3.0	1.04	-.13*	-.14**	-.24**	-.13*	.16**	.12*	-.06	--

* $p < .05$ ** $p < .01$