
The Locational Strategies of Investment in the UK by MNEs from Developing Countries

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Abstract

The 1980s and early 1990s have witnessed the proliferation of multinational enterprises from developing countries (MEDCs), which are also becoming more significant players in the industries in which they participate. In this paper we identify and examine the location characteristics of these firms in the UK. It also assesses how these locational characteristics of MEDCs reflect those identified in the literature, how they compare with local UK firms and how they relate to multinationals from industrialised countries (MEICs). The results on MEDCs' locational characteristics in the UK support the literature on other empirical results, differ from UK firms' locational characteristics and are similar to some of the factors that determine the choice of location of MEICs.

1. Introduction

'The need to remain competitive internationally - including the necessity of servicing prosperous markets through a local presence and the need to have access to resources elsewhere - has pushed growing numbers of firms from developing countries to invest abroad' (UNCTAD 1995, p.26). A multinational enterprise from a developing country (MEDC) is a firm based in a developing country² that owns and controls productive assets in one or more countries other than their own.³

In response to this growing awareness of the importance of outward foreign direct investment (FDI) to the competitiveness of their companies, many developing country governments have encouraged such investment to the extent that in

1996, outflows amounted to \$49.1 billion and their share in the world total of accumulated stock of foreign capital doubled from five per cent to 10 per cent between the periods 1980/84 and 1997 (UNCTAD 1998). This share is, however, relatively small compared to the developing countries' share of global exports, which increased from six per cent to 34.6 per cent while the share of developing countries in world GDP stood at about 20 per cent in 1997 (UNCTAD 1995, p.29; 1998).

MEDC's distribution of foreign assets by industry shows that they invest primarily in services. Services output as a percentage of GDP for the top developing countries has grown substantially, and there is significant diversification taking place in this direction, even by firms whose main activities are in primary production. For example, Malaysia's Sime Darby (plantation) has diversified into heavy equipment trading and engineering services.

Asia (34) and Latin America (13) and Africa (3) are home to the largest top fifty outward investors from the developing countries. Hong Kong has the largest number of companies, followed by South Korea,⁴ Brazil and China. Only South Africa represents Africa. Always prominent in the league table of the top fifty MEDCs are firms from a few countries, mainly Hong Kong, Korea and to a lesser degree, Mexico and Brazil. In the case of Hong Kong and Korea, the dominance remains regardless of whether the absolute number of firms, foreign assets, foreign sales or foreign employment is considered (UNCTAD 1998, Annex table AII.12).

In terms of internationalisation, MEDCs are

significantly less internationalised than the world's top 100 MNEs.⁵ In terms of assets, sales and employment, the top 50 MEDCs in 1996 register indices of internationalisation of 22 per cent, 41 per cent and 34 per cent respectively; whereas the top 100 MNEs worldwide register indices of 43 per cent, 52 per cent and 57 per cent respectively (UNCTAD 1998).

At just 10 per cent, the foreign capital holdings of MEDCs, about \$350 billion in 1997, is quite small in comparison to the foreign capital owned by MNEs.⁶ South Asian countries (Hong Kong, China, Korea, Singapore and Taiwan) accounted for 81 per cent of developing countries' cumulative total foreign capital and 82 per cent of outflows from the developing countries in 1997.

The majority of developing countries' FDI goes to other developing countries, but developed countries are now receiving an increasing share of that investment. Data on inward investment support this: a sample of host developing countries reported that developing countries accounted for 19 per cent of inward investment in 1990, while a sample of host developed countries reported that developing countries accounted for 4 per cent in the same year.⁷ This overall performance of the developing countries is largely due to the high intra-regional FDI flows in Asia.

In contrast to MNEs from industrialised countries (MEICs), MEDCs tend to concentrate their manufacturing activities in their home countries and regions. For example, of all Korean foreign investment projects in 1995, 78.4 per cent were in Southeast Asia, 10.4 per cent in North America and 6.1 per cent in Europe. In terms of value, Southeast Asia accounts for 54 per cent, whereas Europe accounts for only 20 per cent (Korea Development Bank, 1997).

It seems that the prospects for more FDI from developing countries and more developing countries undertaking FDI are quite good. According to UNCTAD (1995):

as countries develop and their firms acquire

more ownership specific advantages they are in a better position to invest abroad. the opportunities and pressures of a liberalising and globalising world economy make it more and more necessary for firms to complement their existing portfolio of proprietary assets and managerial capacities with an appropriate portfolio of international locational assets in order to be competitive with their international rivals. (p.35).

This is confirmed by Dunning *et al* (1998) and UNCTAD (1998).

This recent trend of emerging MEDCs raises questions and issues regarding the determinants responsible for the manufacturing location of MEDCs in the UK. The purpose of this paper is to identify the locational characteristics of MEDCs in the UK and assess how these reflect the literature on MEDCs, how they compare with the location choice of local UK firms and how they relate to MEICs location choice in the UK.

The rest of the paper is presented as follows: Section 2 discusses the motives and characteristics of MEDCs. It discusses the factors responsible for MEDCs undertaking FDI; whether these factors are different from those that affect MNEs generally; and the reasons for the shift in the character and motivation of FDI from some developing countries. Section 3 analyses MEDCs' investment flows into the UK. It advances arguments for and against the UK as the most popular location for FDI in Europe. The data and results are discussed in section 4. The data, which primarily come from a questionnaire survey, are intended to give insight into the location characteristics of the sample firms. The results support the literature on MEDCs, indicate significant differences in the locational characteristics between MEDCs and local UK firms, and strong similarities in the locational choice of MEDCs and MEICs. The study concludes with a summary of the results and recommendations in section 5.

2. The motives and characteristics of MEDCs

2.1. Theoretical aspects: the decision to undertake FDI

A number of theories have been advanced over recent decades to explain why firms choose to invest abroad rather than export from their home country. Companies have identified three elements of economic theory as relevant to the adoption of internationalisation strategies: ownership-specific advantages; internalisation factors; and location-specific advantages.

Hymer (1976) held that the motives for a firm to locate production activity overseas were simply to exploit its market position within the industry in which it operates. He recognised that any firm investing overseas is faced with additional transaction costs (such as those relating to controlling an operation over distance and having to adjust to different languages and business cultures) compared with its local competitors. But he argued that MNEs operate under oligopolistic market conditions and could overcome these extra costs by exploiting their ownership-specific advantages, such as low costs achieved through economies of scale or patented technology. Ownership-specific advantages may be explained by reference to the theory of industrial organisation and the extent to which market imperfections create barriers to competition.

The possession and exploitation of ownership-specific advantages does not satisfactorily explain why firms undertake FDI. Firms could exploit such advantages by exporting or granting licenses to firms based in the overseas market to produce the particular product or service. Buckley and Casson (1991) argued that the motives for FDI come from the existence of internalisation advantages. That is, the advantages that can be derived from exploiting market opportunities internally, rather than through external transactions. It may be difficult to maintain control over quality or standards of service when producing in another country through a licensee. It may relate to

'transfer pricing', where MNEs can use the prices they charge for cross-border intra-firm movements of inputs between the various subsidiaries or affiliates to minimise their tax payments or to exploit differences in tax rates between different countries by declaring a larger proportion of profits in a low tax jurisdiction. Internalisation strategies are also justified where a company is keen to retain proprietary rights over technical and marketing knowledge which underpin its competitiveness. Internalisation advantages, therefore, depend on the extent to which the market mechanism is capable of capturing the full economic rent of these ownership advantages.

The product life cycle theory of internationalisation (Vernon, 1966) adds a locational dimension to understanding the impetus for firms to engage in FDI. In the initial stage of product development, highly specialised inputs have to be combined to develop and test the product, arrange for its production and bring it to market. Only those countries with appropriate technological capacities are able to undertake this stage of production and access to other markets - needed to expand sales - is initially via exporting. As the product matures and its production and marketing become standardised, the firm will often consider other locations for production, either because of the competitive advantage this offers (e.g. lower assembly costs through lower local wages or government subsidies), or because proximity to the market helps in modifying the product to suit localised preferences. With some products a firm can, in later stages of the product cycle, carry out the production process in a less developed country and actually export the item back to the country where it was originally developed.

It should also be noted that some firms would be encouraged to invest in a foreign country rather than exporting to it because of the existence of locational features that allow them to derive external benefits from such investment. Firms are attracted by those locations that essentially determine the trends in demand standards for particu-

lar products or services, or which have a lead in terms of the networks of specialist suppliers, skilled labour resources, and design or marketing capabilities. A company can benefit from such resources and thus enhance its competitiveness generally by establishing production facilities close to their market. Location advantages, therefore, depend on the relative input costs, productivity, market characteristics and government policies of alternative locations.

The three types of advantages - ownership-specific and internalisation advantages of the investor company and the location-specific advantages of the host nation - feature prominently in our present understanding of why firms undertake FDI. Dunning (1981a) has used these concepts in an explanatory framework relating to FDI, i.e. the 'eclectic paradigm'. According to this framework, foreign firms possess ownership advantages, which give them an advantage over local competitor firms. The foreign firms are discouraged from exploiting their ownership advantages through either exporting or licensing arrangements with a local producer because of the high costs associated with these alternatives. These costs include access to markets (i.e. demand) and strategies towards rivals and proprietary rights. Also, cost advantages exist which give them an incentive to locate production activity in the foreign country.

2.2. MEDCs decision to undertake FDI.

There have been several contributions to the literature on developing countries' FDI, the most important being the works of Lecraw (1977), Kumar and McLeod (1981), Wells (1983) and Lall (1984). These studies have concentrated on three main areas; the ownership or firm-specific advantages that allow firms to compete successfully internationally, the motivations behind developing countries' FDI, and the location characteristics of developing countries' FDI. These studies concluded that the MEDCs differed considerably from the MEICs, in terms of their own-

ership, motivation, geographical location and mode of foreign activity. In recent times, however, there has been a fundamental shift in the character and motivation of FDI from some developing countries. This shift has been brought about as a result of changes in the structure of the world economy, which are a result of globalisation and regionalisation of economic activity. These phenomena are associated with dramatic technological advances, the liberalisation of markets and the establishment of regional trading blocks. Only those developing economies that have responded successfully to globalisation have been able to experience this shift in the character and motivation of FDI (Dunning and Narula 1994, 1996; Dunning, Van Hoesel and Narula 1998)

Dunning (1981b) contended that FDI by MEDCs is primarily influenced by country-specific determinants such as the level of economic development or industrialisation (see also Wells, 1983). The bulk of manufacturing investments from the developing countries have come from countries with large industrial sectors, for example, Singapore, India, Korea and Taiwan in Asia, and Brazil and Mexico in South America (Sagafinejad 1986, Dunning and Narula 1996).

Lall (1985) proposed two sets of determinants of MEDCs' FDI; the competitiveness of a firm relative to actual or potential rivals, and the location factors necessary to exploit these competitive advantages. Seeking new and maintaining existing markets is found to be one of the most important reasons why MEDCs undertake FDI (see Agarwal, 1985; Varadaraj 1987).

Studies by Glickman and Woodward (1988) and Glickman, et al (1989) for the US, using data for the period 1974-1983, concluded that growing regions have received most of the inflow of FDI. Glickman et al (1989) also found the most important location factors for foreign companies in the automobile, semiconductor and computer industries to be capital and labour related. Swamidaas (1990) found that foreign multinationals are behaving more like local firms when it comes to

location decisions. There is no significant difference between foreign firms and US firms when it comes to site selection.

There are several factors that motivate MEDCs to invest abroad rather than produce at home. Among these are market protection and development in host countries, such as the avoidance of quotas in high-income countries and risk aversion (or diversification) by locating assets outside the home country. Most MEDCs' investments take the form of FDI rather than portfolio investments.

Since the European Union (EU) started initiating more anti-dumping probes into imports, MEDC manufacturers, particularly from Southeast Asia, have been moving quickly to set up local production facilities within the EU to avoid this issue altogether. For example, a recent complaint by EU excavator manufacturers about the dumping of artificially low-priced foreign products in the European market triggered such moves by Samsung and Hyundai (European Commission 1997). By late 1995, Korea's three major microwave ovens manufacturers (LG Electronics, Samsung Electronics and Daewoo Electronics) produced a total of four million units in the EU, compared to 1.7 million imported units.

Spreading the risk of domestic production is very important for many MEDCs. This risk may arise from exchange rate fluctuations, government regulations on investment, import and export controls through high tariff and non-tariff barriers to trade, and political and social instability. An example of risk spreading is illustrated by Mexico's Cemex operations abroad. Foreign production has helped Cemex to ride out Mexico's exchange rate crisis as revenues from overseas helped it to offset the losses at home from the great peso devaluation of December 1994.

MEDCs exploit their ownership advantages in product and process technologies appropriate to their factor endowments (or input costs) and the demand structure of the host countries in which they invest (see Lecraw 1981, Wells 1983, Lall

1984). They usually use smaller scale, more labour intensive and more flexible technology than MEICs (Lecraw 1981, Monkiewicz 1986). They employ, for example, man rather than machine insertion of components in assembly lines. Their flexibility comes from switching labour from task to task and from product to product, and not from employing expensive multi-functional machinery as do MEICs. MEDCs depend more often on purchased production technology from abroad than on domestically developed technology. Their products contain a high proportion of components and parts bought from outside the organisation.

Much of the empirical work indicates a strong and marked trend for MEDCs to focus their investment in neighbouring and other countries which were at a similar or an earlier stage of their development. These locations had locational advantages that were very similar to those of their home countries. Also their ownership advantages were of a type most suited to these locational advantages, and were based on technologies that were at the end of their product life cycles.

Most MEDCs have specific arrangements with firms that supply them with components, parts and technology (Vernon-Wortzel and Wortzel, 1988). For example, most Taiwanese and Korean consumer electronics manufacturers seem to have some formal arrangement with Japanese suppliers. Sometimes the Japanese suppliers become minority shareholders in those MEDCs that they supply with components and technology. For example, Mitsubishi, a Japanese motor manufacturer, is a major supplier of components and technology to Korea's Hyundai Motors and is a minority shareholder in the firm. The Malaysian Proton car is composed largely of Mitsubishi parts and depends heavily on Mitsubishi technology.

It is argued by Wells (1983) that MEDCs' outputs are generally of a lower quality than that of MEICs and compete on the low-price end of the market. MEDCs tend to export less of their output from their foreign subsidiaries than do MEICs

and local firms. Their exports are most often to markets other than those in their home countries (Lecraw 1993). This indicates that a primary motive for FDI and the choice of location is driven by a need for market access. They also tend to import a lower proportion of their inputs than do MEICs, thus developing greater linkages with the host economies.

As a result of these characteristics, MEDCs'

Germany and France combined. In this section we identify the factors that may determine the locational choice of MEDCs in the UK. The UK not only plays host to the biggest foreign investors in Europe, namely the USA and Japan, with about 40 per cent of their cumulative investment in EU manufacturing, but also investment from MEDCs, such as Hong Kong, Korea, Brazil and Taiwan. The UK is regarded as the primary

Table 1: A comparison of the characteristics of MEDCs and MEICs

	<i>MEDCs</i>	<i>MEICs</i>
Production facilities	Concentrated in few places (mainly home market)	Well dispersed across geographical markets
Source of technology	Purchased (external)	Developed (internal)
Flexibility	Relatively flexible	Relatively inflexible
Relative labour/output ratio	High	Low
Technology adaptation	Yes	No
Product line	Narrow	Wide
Product	End of product life cycle, lower price points	Product creation and innovation; higher to medium price points
Ownership	Partly owned	Wholly owned
Size	Small	Large
Vertical integration	Less	More

market shares are usually small. They do not normally dominate a country's market, but they may dominate the low-price end of the market, as Korean MEDCs do in the UK and US personal computer markets. Table 1 summarizes some of these characteristics and compares them with MEICs. It has emerged from these studies that MEDCs may be distinguished from MEICs in their motivation, behaviour and competitive advantage.

3. MEDCs in the UK

The UK has been quite successful in attracting the largest share of all cumulative FDI in the European Union (EU), accounting for more than 20 per cent of the total since 1980. It has consistently won more new manufacturing projects than

location in Europe for inward investment by Korean companies, which are the second largest Asian investor in the UK after Japan.

Foreign investment now provides more than 30 per cent of UK manufacturing investment, about 20 per cent of UK manufacturing employment, more than 20 per cent of manufacturing output and about 40 per cent of manufacturing exports (Business monitor, PA 1002, various). There are differing views about why the UK has proved the most popular destination for companies wanting a toehold in what is the largest and most dynamic market in the world (i.e. the EU). A number of qualities have been listed as attractive to foreign manufacturing companies. These include low corporate taxes (now reduced to 31 per cent since July 1997), a skilled workforce, technical and sci-

entific know-how to support research and development, and the associated sustainable competitive advantage.⁸

Critics [of FDI flow into the UK] say that the UK receives such investment flows primarily because it has some of the lowest wages in Europe. It has been suggested that foreign companies (including MEDCs) are targeting 'Britain's pool of ever-cheapening labour' as employers from Taiwan, Singapore and Korea have discovered that pay rates in the UK are lower than in their own countries. Thus MEICs (and MEDCs) readily exploit a production location that has a relatively low minimum wage, long working hours and poor or weak employment protection. Employers in the UK pay relatively low non-wage employment costs, such as pensions, compared to other EU countries. While these costs amount to around 50 per cent of wage/salary payments in France, Germany and Italy, they amount to only 25 per cent in the UK (The Low Pay Unit, nd).⁹

Invest in Britain Bureau (IBB) acknowledges that there may be labour costs advantages to setting up in Britain compared to some EU states, in which case the principal issue is how significant labour costs are in relation to total manufacturing costs. MEDCs, with a higher labour-capital ratio than MEICs, will find low labour costs an advantage when setting up in the UK.

Apart from low labour costs, which supporters [of FDI inflows] see as a positive attraction, they believe that 'labour flexibility', high skills, open markets and good communications are even more important. Social aspects are also of some significance. For example, education facilities are major concerns for southeast Asian companies investing in the UK, particularly those locating in the London and South-east region.

Although labour and other costs are significant considerations for MEDCs when they undertake FDI, those from Southeast Asia locate a larger proportion of their labour-intensive industries in their own region (i.e. South Asia) where labour

costs are considerably lower. They tend to locate their more capital-intensive industries in the US and Europe where investments are made to ease costly high technology transfers and to avoid trade friction with the advanced countries.

Apart from the inflow of FDI, the UK is a net beneficiary of corporate restructuring across Europe. Companies that have closed or cut back production on mainland Europe but have expanded production in the UK, include Samsung and Daewoo, two of the major MEDCs from Korea. LG has shifted some of its VCRs production from Germany to its extended TV and microwave oven plant in Newcastle, UK. These moves in location are basically for strategic and financial reasons. For example, the strength of the Deutsche Mark made it difficult to make a profit producing in Germany. More important, however, is the UK's very favourable political attitude towards inward FDI, which reflects its commitment to open markets.

The English language is also another factor responsible for the increased inflow of FDI. Invest in Britain Bureau have summarised the major attractions of the UK to foreign investors as the English language, low labour costs and labour flexibility, the availability of services, attitudes to FDI and Britain's distinctly open economy which contrasts with other EU countries.

Some of the major investment inflows into the UK in recent years have come from MEDCs based in Southeast Asia and they tend to locate in the peripheral regions of the UK, where labour costs are relatively low. Table 2 shows some of these recent major MEDC investments in the UK. One point that stands out from these figures is that on average, Taiwanese investment tends to be more labour intensive than those of other MEDCs in the UK.

4. Data and results

This study uses primary data, collected through a questionnaire survey and personal interview, to examine the location-behaviour characteristics of

Table 2: Major MEDC investment in the UK, 1995-98

<i>Company</i>	<i>Origin</i>	<i>Amount £m</i>	<i>Location</i>	<i>Jobs created</i>
LG Group*	Korea	1700	Wales	6100
Samsung	Korea	450	Teeside	3000
Chungwa Picture Tubes	Taiwan	270	Scotland	3300
QPL	Hong Kong	500	Wales	770
Lite-on Technology (UK)	Taiwan	40	Scotland	1000
Halla	Korea	20	Wales	300
Allied Precision Company	Taiwan	12	Scotland	200

*Europe's largest single foreign investment, *The Herald*, 19.3.96

MEDCs in the UK. The respondents in this study were drawn from the Financial Analysis Made Easy (FAME) CD-ROM listing of all firms operating in the UK. It records firms according to the type of products they produce, their country of origin and date of incorporation. Only manufacturing firms were selected. This choice is based on the manufacturing firms' greater locational dispersion in the UK, thus reflecting the locational characteristics, such as financial incentives and labour-cost differentials, better than, say, services, which are less dispersed and concentrated in the financial heartland of London and the South East. Also, they tend to be of lower size (assets, sales, employment) dispersion, eliminating the need for standardisation, which might be necessary for firms in the services industry. Finally, it is much easier to get comparative data on manufacturing firms (local and MEICs) than for firms in the services industry. Firms are considered part foreign if 10 per cent or more of their ownership participation is non-UK and are said to originate from a developing country if 91 per cent of their ownership is from a MEDC.

A questionnaire was sent to 120 randomly selected firms originating (or have ownership shares originating) from developing countries. These were followed by telephone contact where necessary/possible. A similar questionnaire was also sent to 150 UK manufacturing firms of simi-

lar size as the firms from developing countries.¹⁰ No follow-up telephone contact was necessary in this case. In the case of telephone contact, a specific management individual familiar with the information sought was contacted. The purpose of comparing the location choice of MEDCs with local UK firms is to see how similar (or different) MEDCs are in making this choice by estimating the relative importance of the various location characteristics.

The questionnaire sought firm-specific information including sources of technology and whether the firm is wholly owned or a joint venture. It also presented a list of 49 location-specific attributes (or factors), which respondents were asked to rank (from 1 to 10) in order of importance when the firm selected a particular community in which to locate their operation. Respondents were also asked to rank their sources of information about locations in the UK, and to comment on how satisfied they were with their location choice.

Thirty-six companies were identified as MEDCs from the 120 questionnaires sent out. Most of these firms had established relatively new [manufacturing] operations in the UK (since 1980).¹¹ The 120 foreign LDC firms surveyed were involved in six aggregated industries: electrical machinery and equipment (36 per cent), food and food products (20 per cent), rubber and

Table 3: Location characteristics rated by importance
Mean^{rank} (standard deviation)

<i>Location characteristics</i>	<i>MEDC (n=36)</i>	<i>UK firms (n=58)</i>	<i>Location characteristics</i>	<i>MEDC (n=36)</i>	<i>UK firms (n=58)</i>
availability of utilities	6.28 (2.53)	5.76 (1.82)	management personnel availability	5.50 (2.05)	5.43 (1.86)
availability of seaports	5.31 (1.21)	5.33 (1.76)	nearness to major buyers and end consumers	5.39 (2.26)	4.93 (1.61)
capital availability	6.39 (2.00)	5.8 (1.35)	nearness to input sources	6.44 (1.87)	5.93 (1.40)
crime level	5.81 (2.14)	5.74 (2.05)	nearness to export markets	6.25 (1.95)	5.74 (2.12)
climate	5.86 (1.76)	5.76 (1.41)	nearness to other parent-owned	2.31 (1.31)	2.71 (1.27)
cost of capital	6.67 (2.07)	6.26 (2.00)	nearness to other partner-owned	2.00** (0.93)	2.48 (1.47)
construction costs	6.56* (1.81)	5.90 (1.73)	nearness to other same industry	2.61 (1.52)	3.09 (1.43)
cost of utilities	6.64 (2.11)	6.10 (1.88)	nearness to other same nationality	2.14*** (1.76)	3.21 (1.78)
cost of suitable land	8.08*** (1.87)	6.34 (1.70)	nearness to suppliers	5.86 (1.71)	5.97 (1.92)
educational facilities	5.69* (1.49)	6.28 (1.89)	police and fire protection	5.97 (1.42)	6.24 (1.34)
employee training	6.33** (1.51)	5.74 (1.29)	suitability to expatriate and family	5.97 (1.61)	6.24 (1.73)
facilities for children	5.81 (1.82)	5.71 (1.11)	space for expansion	7.47** (1.78)	6.78 (1.45)
free trade zone	5.17 (1.87)	4.78 (1.38)	site improvement	6.11*** (1.79)	5.47 (0.99)
hotel accommodation	5.22 (1.70)	5.47 (2.21)	size of community	5.78 (1.69)	5.90 (1.32)
housing facilities	5.50 (1.70)	5.36 (1.35)	suitable plant size availability	7.67*** (1.90)	6.10 (1.79)
infrastructure development	6.06 (1.57)	6.34 (1.52)	site selection assistance	5.67* (1.82)	5.05 (1.16)
local citizen attitudes	6.97* (2.10)	6.24 (1.91)	skilled/technical labour availability	7.08 (2.29)	6.19 (1.87)
local financial assistance	6.75*** (2.06)	5.72 (1.25)	transportation costs	6.56 (1.66)	6.52 (1.55)
land grant	5.28 (1.65)	5.14 (1.29)	trade facilities	6.17 (2.13)	5.76 (2.04)
local government attitudes	6.75 (2.49)	6.33 (2.02)	transportation services availability	6.06 (2.16)	6.14 (1.65)
local labour attitudes	6.25 (2.17)	5.48 (2.40)	unionisation level	5.81 (2.16)	5.57 (2.03)
local labour laws	7.28*** (1.81)	5.91 (1.91)	unskilled labour availability	5.28 (2.04)	5.67 (2.09)
labour productivity	6.92 (2.22)	6.52 (1.90)			
local salary & wage levels	6.17 (1.92)	6.45 (1.78)			
labour turnover rate	6.69 (2.39)	6.17 (1.86)			
local tax rate	6.00 (1.94)	5.93 (1.84)			

Difference from UK firms:

*** statistically significant at the 1% level

** statistically significant at the 5% level

*statistically significant at the 10% level

Note: scale used from 1 (not important) to 10 (extremely important)

plastics (15 per cent), textiles (11 per cent), chemicals/pharmaceutical (10 per cent), wood and wood products (eight per cent).

All identified MEDC respondents 'purchase' their technologies from MEICs. The only forms of innovation taking place within MEDCs involve product and technology adaptation. MEDCs prefer to wholly-own their subsidiaries, which implies that they prefer to buy factors and resources they do not possess, rather than joint venture to gain access to them in the UK. Only seven per cent of our sample foreign LDC firms is engaged in a joint venture with a UK firm.

The foreign LDC firms in our sample originate from Bermuda (23 per cent), Korea (20 per cent),

tively which are exclusively engaged in agriculture-related manufacturing.¹²

The result of our analysis addresses three main issues: How the empirical result on the locational choice of MEDCs relates to those identified earlier in section 3, how it compares with local UK firms and finally how it relates with those of MEICs in the UK.

Table 3 shows the location attributes used in the research. According to their respective mean ranks, out of the 49, the top ten attributes of MEDC respondents were: 1) cost of suitable land, 2) suitable plant size availability, 3) space for expansion, 4) local labour laws, 5) skilled/technical labour availability, 6) local citizen attitudes, 7)

Table 4: Location factors for MEDCs

<i>Top 5 factors</i>	<i>Percent of variance explained</i>	<i>Cumulative percentage</i>
<i>MEDC Manufacturing Firms (n=36)</i>		
Local capital and incentives	57.2	57.2
Local management, labour and attitude	13.6	70.8
International business concerns	9.3	80.1
Market logistics	7.8	87.9
Tax rates	6.5	94.4
Community environment	2.0	96.4
Synergy logistics	1.2	97.6

Note - the location factors are made up as follows:

Local capital and incentives = availability of capital, cost of capital, financial assistance, free trade zones, infrastructure development, land grant, site improvement, site selection assistance, space for expansion, suitable plant size availability.

Local management, labour and attitudes = local citizens' attitudes, local government attitudes, local labour laws, labour productivity, local salary and wage levels, management personnel availability.

International business concerns = nearness to input sources.

Market logistics = nearness to major buyers and end consumers, nearness to input sources, nearness to suppliers.

Tax rates = local and national tax rates.

Community environment = educational facilities, housing facilities, police and fire protection, climate.

Synergy logistics = nearness to other parent-owned, to other partner-owned, to other same industry and to other same nationality.

Hong Kong (16 per cent), Malaysia (13 per cent) and Singapore (eight per cent). Thus, Asia is the dominant source. The only African and South American representation in the sample are Liberia (three per cent) and Mexico (two per cent) respec-

labour productivity, 8) local financial assistance, 9) local government attitudes, and 10) cost of capital. This result is consistent with most surveys of UK inward investment which find financial assistance less important than the cost of suitable land,

cheap and regulated labour and other incentives.

The locational characteristics of MEDCs in the UK significantly reflect those identified in the previous section. For example, financial incentives and labour cost differential are important factors determining MEDCs' production location in the UK, with mean ranks of 6.75 and 6.17 respectively, giving support to critics of FDI flows into the UK. But, perhaps of more significance, as suggested by IBB and other supporters of FDI, are the cost of suitable land (8.68), suitable plant size availability (7.67), space for expansion (7.47), local labour laws (7.25), and skilled and technical labour availability (7.08). With low levels of standard deviation, this indicates that most respondents rank these attributes more highly in their location choice. Also of significance, and contrary to popular beliefs, MEDCs rank the cost of capital (6.67) lower than would be suggested by the factor endowment theory. Table 4, however, shows that all aspects of capital and incentives come top of the list of factors influencing the choice of location.

Comparing these results with UK firms indicates that some of the location attributes are ranked differently by these two types of firm. For example, in contrast to UK firms, MEDCs attach greater importance to attributes involving costs, local incentives and attitudes. On the other hand, MEDCs attach less importance to 'synergy logistics' and 'community environment' than their UK counterparts. This result is in contradiction to the Swamidaas (1990) conclusion that foreign multinationals behave like local firms when it comes to location decisions. For example, UK firms rank nearness to firms of the same industry higher than MEDCs, whereas MEDCs rank costs of labour and land, space for expansion, etc. higher than UK firms.

Because of the large number of location attributes, a varimax-rotated common factor analysis is used to identify the underlying primary factors governing this large number of location attributes. Seven factors were derived from the 49 location

attributes. The top seven factors important to MEDC investors in the UK are: 1) local capital and incentives, 2) local management, labour and attitudes, 3) international business concerns, 4) market logistics, 5) tax rates, 6) community environment and 7) synergy logistics. Local capital and incentives are the dominant factors at 57 per cent of variance explained and close to 60 per cent of the cumulative percentage of variance explained (CPVE) (see table 4). These seven factors accounted for 97.3 per cent of the CPVE.

The results of the locational characteristics of MEDCs relate positively with results obtained for MEICs. Cleeve (1999), using a conditional probability model, identified a number of factors that determine the locational choice of Japanese manufacturing multinationals in the UK. Labour cost differential and the productivity of a location are quite significant determinants as far as the choice of location of Japanese firms is concerned. Productivity, in this case, could be interpreted as resulting from a skilled and technical labour force, with good management expertise.

It was not clear whether the cost of land or regional assistance (or financial incentive) has the greater influence in determining the locational choice of Japanese firms. Locations that offer financial assistance to foreign investors are also locations where the cost of land is relatively cheap, there is space for expansion, and have suitable plant size available. The cost of land and financial assistance have a significant influence in the locational choice of Japanese firms in the UK. The identified MEDCs also confirm the differences in their characteristics with the MEICs, as shown in table 1. A comparison with Japanese firms (JETRO, 1997) shows that while the MEDCs are producing a few standardised, low-priced products (e.g. computer components, car parts, etc), the Japanese firms are producing a wide range of products, including specialised goods and products that sell at the higher-priced range of the market. The MEDCs have a higher labour/output ratio than their Japanese counter-

parts and all of them purchased their technology from MEICs.

Table 5 shows that MEDCs significantly depend on investment missions and local development agencies for local information, while UK firms depend more on state development agencies and the utilities. This result is not inconsistent with the drive of regional development agencies to attract FDI into their various regions.

these results because of the small sample size.

5. Conclusions

The results of this study indicate that MEDCs' location decisions in the UK are strongly influenced by both transaction and private cost considerations such as the cost of suitable land, suitable plant size availability, space for expansion and the cost of capital. This is what is expected for the

Table 5: Sources of information rated by usefulness
Mean ^{rank} (standard deviation)

	MEDC (n=36)	UK firms (n=58)
Firms from same country	3.43 (1.66)	3.57 (1.30)
Firms from same industry	5.23 (2.41)	5.04 (2.33)
Local development agencies	6.86** (1.36)	6.03 (2.12)
Utilities (power and water)	6.93 (2.25)	6.53 (2.10)
State development agencies	6.46 (1.83)	6.58 (2.04)
Investment missions	7.01*** (2.51)	4.36 (1.32)
UKDTI	5.06*** (1.96)	3.68 (1.63)
Independent consultants	6.35*** (2.06)	2.85 (1.95)

Difference from UK firms:

*** statistically significant at the 1% level

** statistically significant at the 5% level

* statistically significant at the 10% level

Note: scale used from 1 (not important) to 10 (extremely important)

Table 6 shows that 99.4 per cent of MEDCs are highly or moderately satisfied with their location decision, with about 20 per cent indicating that some problems exist in their present location. UK firms indicate a higher degree of dissatisfaction (4.2 per cent). They also show a higher proportion of the highly satisfied.

In terms of the nature of problems encountered in their location, a higher proportion of MEDCs experience cost-related problems, indicating their distinct cost concerns, whereas UK firms experience more labour-related problems. Caution however must be exercised when interpreting

typical small sized firm, which is what the average MEDC is; with fewer financial resources and limited experience in FDI. In contrast to conventional wisdom, however, labour costs appear less important than land price in MEDCs' location decision. They also place a high premium on non-financial attributes that are necessary for long-run survival, such as skilled labour availability, local citizen attitudes and local government attitudes. These firms seem to be significantly market orientated and they are concerned with the local community in which they operate. In general, there seem to be significant differ-

Table 6: Location evaluation (% of total)

	MEDC (n=36)	UK firms (n=58)
<i>Satisfaction level</i>		
Highly satisfied	46.0	62.1
Moderately satisfied	53.4	33.7
Moderately unsatisfied	0.6	4.2
Highly unsatisfied	0.0	0.0
<i>Existence of problems</i>		
No	78.3	73.8*
Yes	21.7	26.2
<i>Problem type</i>		
None	78.3	70.5*
Labour supply	3.2	6.5
Environmental	0.0	3.6
Unions	1.0	2.3
Costs	6.1	3.7
Incentives	0.0	0.0
Mixed problems	11.4	13.9

* Difference in values due to conflicting answers given.

ences between MEDCs and local UK firms as far as the importance of locational characteristics is concerned. It also shows that there are some similarities with MEICs in their location characteristics.

Given the importance of direct investment in the UK's regional economies, for job creation and industrial regeneration, this study's results should provide an initial indication of what is distinctly important to a particular type of foreign investor, namely, MEDCs. The location behaviour may be significantly different from local firms and MEICs, therefore a clear understanding of the needs of these investors will contribute positively to the national investment programme.

These results provide a preliminary indication of the factors governing the choice of location of MEDCs in the UK. It will remain a fact, however, that MEDCs foreign investment will continue to play a more significant and increasing role in the global economy.

Endnotes

1 Manchester Metropolitan University. Useful comments by George Zis, Derek Leslie and Judith Tomkins are gratefully acknowledged. I also acknowledge with thanks the comments and suggestions of two anonymous referees.

2 We might also want to distinguish between the developing countries (e.g. Taiwan, Korea) and the least developed countries (e.g. Chad, India) which are completely different in their socio-economic attainments.

3 See for example, Lecraw (1977), Kumar and McLeod (1981), Wells (1983) and Lall (1984).

4 Henceforth referred to as Korea.

5 The index of internationalisation measures a firm's foreignness and is calculated in terms of any one of three ratios; Foreign assets to total assets, foreign sales to total sales or foreign employment to total employment.