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**Determinants of MNC's Mode of Entry  
into an Emerging Market:  
Some Evidence from Egypt and South Africa\***

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**Abstract:**

Using unique firm-level data from South Africa and Egypt, this paper addresses three different lacunae in the literature. First, the paper has brought into focus a comparison between two emerging markets that have very different political and economic legacies, institutions and business environment. The results are consistent with the prior that the determinants of the choice of entry mode would be different for these two countries. Second, it has distinguished between the manufacturing and services sectors during the empirical exercise, and the results have borne out the hypothesis that the determinants of the choice of the mode of entry are different for these two broadly defined sectors. Third, starting with specifications based on the existing literature, the paper has demonstrated that the largely stylised specification usually used in the context of developed market economies, by and large, yields meaningful result in the context of entry into emerging markets, more so if the emerging market (e.g., South Africa) has well functioning markets and market institutions to some extent. An important upshot of the empirical analysis is that in the context of emerging markets regulations and factors that determine the transactions cost of doing business are the key determinants of the choice of the mode of entry; the role played by the technology embedded in the MNCs' products in determining the choice of entry mode is largely insignificant.

*JEL Classifications:* D21, D23, F23, L14, L21

*Keywords:* MNC, Greenfield, acquisition, joint venture, agency problem, transactions cost

## 1. Introduction

The OLI “model,” which has become the centrepiece of the literature on multinational corporations (MNCs), suggests that it is optimal for a firm to be a MNC, and thereby locate some of its production centres outside its home country if three different conditions are satisfied (Ethier, 1986). First, the firm has to *own* knowledge about products and processes that endow it with an advantage over competitors within its industry. For the sake of simplicity, we can call this intangible asset “technology.” Second, *location* in the host country should provide the firm some advantage like elimination of tariff costs that induces the firm to locate (part of) its operations in the host country. Third, the endeavour of the firm to produce the relevant good in the host country, thereby *internalising* the process of catering to the demand in that country, should be more beneficial than arms-length transactions like licensing.

The OLI paradigm, however, does not provide any obvious rationale as to *how* a MNC should enter a new market: as a wholly owned subsidiary (WOS), by way of acquisition of a local firm, or in partnership with a local firm (i.e., as a joint-venture or JV). Yet, the mode of entry by MNCs into a developing country has important implications for its process of development. Specifically, the mode of entry of a MNC may determine its willingness to transfer technology to its affiliate, both because a low level of control would lead to a relatively low share of the benefits arising from the transfer of the technology, and because a low level of control would reduce its ability to prevent the diffusion of the technology among competitors in the host country without adequate compensating payment.<sup>1</sup> This reluctance on the part of the MNC to transfer technology to its affiliate may, in turn, affect the extent of technology spillovers on account of foreign direct investment (FDI). Since such spillovers are important for the process of economic development in a developing country, an examination of the determinants of a MNC’s mode of entry in a developing economy assumes significant importance.<sup>2</sup>

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<sup>1</sup> Vishwasrao and Bosshardt (2001), for example, have argued that, subsequent to the initiation of economic liberalisation in 1991, the extent of technology adoption by Indian manufacturing firms was positively correlated with the extent of foreign control and, *ceteris paribus*, foreign owned firms (i.e., affiliates of MNCs in India) adopted new technology to a greater extent than other firms. Blomstrom and Zejan (1989) also argue that multinationals are reluctant to transfer technology to local affiliates if the mode of entry is JV, and JVs are usually sought by MNCs that either have little operating experience in the host country or are highly diversified. These results are consistent with the postulates of the model developed by Ramachandran (1993). A more general linkage between ownership and transfer of technology can be found in Markusen and Venables (1999).

<sup>2</sup> It is, of course, by no means certain that the transfer of technology by a MNC to a developing country affiliate would lead to spillovers that would have a positive impact on the productivity of the local firms. Spillovers may, for example, be inhibited by large technology gaps between the MNCs and the local firms that would make it difficult for the latter to successfully adopt technologies that would enable them to compete with the MNC affiliates (Lapan and Bardhan, 1973; Glass and Saggi, 1998). Further, if the local market is large, the MNC affiliates and the local firms may profitably operate within their own niches or “enclaves” that would deter technology spillovers (Kokko, 1994). However,

As we shall see later, the literature has empirically explored the determinants of a MNC's choice between JV and Greenfield (e.g., Luo, 2001) and that between Greenfield and acquisition (e.g., Gorg, 2001). It has also explored, within the paradigm of the literature on industrial organisation and asymmetric information, the "life cycle" of JVs.<sup>3</sup> However, the literature is marked by three lacunae. First, the empirical literature has implicitly assumed that the data generation processes associated with the manufacturing and the services sector firms are the same, and that therefore an unified specification can account for the mode of entry choices of the MNCs for both these sectors. Second, the literature, much of which is based on data from developed industrialised economies, has not examined how the determinants of entry mode choice may differ between two countries that are fundamentally different in terms of their industrial prowess, institutions and business environments. Third, none of the existing papers have explored the two separate choices that a MNC has to make, namely, choose between having and not having a local partner, and then choose between acquisition and the Greenfield mode of entry. It is evident, however, that all three of these exercises are necessary to develop a better understanding of a MNC's strategy with respect to entry mode choice. This, indeed, remains the endeavour of this paper.

Using unique data collected from South Africa and Egypt, two countries that are very different in many ways, we explore the determinants of entry mode choice of MNCs – both for the choice between JV and entry without local partnership, and Greenfield and acquisition – with special emphasis on the aforementioned lacunae in the literature. The paper is structured as follows: In Section 2, we develop the specifications on the basis of a brief discussion of the literature. The macro environments of the two countries and the data are described in Section 3. The regression results are presented in Section 4. Section 5 concludes.

## **2. Specifications**

What determines a MNC's choice of mode of entry into a new market? As mentioned above, a MNC is characterised by its ownership of a technology that enables it to operate profitably – indeed, earn rents – under different business environments. One of the major concerns of a MNC, therefore, is to ensure that it does not lose control of this technology. Given the costs of writing perfect contracts and the costs associated

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there is evidence to suggest that such spillovers exist and can, indeed, be significant (see, for example, Blomstrom and Sjöholm, 1999).

<sup>3</sup> A JV can be quite unstable. If, for example, there is an asymmetry between the perceptions of a MNC and the local partner about the usefulness of the MNC's technology in providing a competitive edge, in equilibrium the MNC might find it more profitable to get out of the JV and enter the host market on its own (Sinha, 2001).

with monitoring, the easiest way of losing control over the technology is to enter into a partnership with a partner in the host country. At the same time, partnership with a local firm in a host country enables a MNC to minimise the costs associated with an imperfect knowledge about the local policy and business environments, as well as about the product and factor markets. It follows that a MNC will desire more control – the extreme form of which is a WOS – if its product or process of R&D intensive (Caves, 1996; Smarzynska, 2000), and if the MNC has made significant investment in its proprietary technology (Gleason, Lee and Mathur, 2002). Correspondingly, it will desire less control if these are intensive in the resources that make a host country attractive as a location to set up operations (Teece, 1986; Asiedu and Esfahani, 2001).

However, a MNC has to balance the agency costs associated with a tie-up with a local firm with the transactions costs associated with entry on its own (Gomes-Casseres, 1989); transactions costs associated with acquiring resources and doing business in a country can be considerably reduced if the MNC ties up with a local firm (Hennart, 1991). Further, the MNC's decision regarding whether or not to tie up with a local firm also depends on its risk appetite with respect to its exposure to the host country, and on its expectations about the market potential of the host country. Specifically, the literature argues that a MNC's choice is determined by the following factors: risk associated with the policy and business environments of the host country, market potential of the host country (Kogut and Singh, 1988a; Agarwal and Ramaswami, 1992; Barbosa and Louri, 2002);<sup>4</sup> cultural distance between the host country and the country of origin of the MNC (Kim and Hwang, 1992);<sup>5</sup> and the (expected) size of operations in the host country (Gatignon and Anderson, 1988). It also argues that that the mode of entry of a MNC to a new market or production base would depend on the experience of the MNC with respect to operating in the country concerned and/or, broadly speaking, on its experience in similar countries (Kogut and Singh, 1988b; Erramilli, 1991; Cleeve, 1997; Barbosa, Guimaraes and Woodward, 1998).

One other strand of the literature examines the decision tree of a MNC if it decides to enter a host country on its own (Chatterjee, 1990; Zejan, 1990; Hennart and Park, 1993; Gorg, 2000). It argues that a MNC can choose between a Greenfield project and acquisition of an existing firm in the host economy. If a MNC opts for a Greenfield entry, it has to incur the cost of putting together the resources that are required to

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<sup>4</sup> Horstman and Markusen (1996) argue that a MNC prefers a JV with a local company if it perceives the host market to be small. If the perception proves to be correct, the JV relationship continues; otherwise the MNC terminates the JV relationship and re-enters the market by itself.

<sup>5</sup> It is easy to see why, for example, a Russian oil company would be able to adapt to the local business environments in Kazakhstan than a British or an American company. The factor influencing the ability of MNC to quickly adapt to local conditions in a host country, however, has little to do with geographical distance *per se* and more with the extent of similarity between the legal and institutional frameworks of the host country and the country of the MNC's origin.

build a company and the business networks that are required to enable this company to function profitably. On the other hand, if the MNC opts for acquisition of an existing company, it has to incur the cost of adapting the company's production process, organisational structure, management style and business networks to suit its own requirements. The eventual choice between a Greenfield entry and an acquisition would, in other words, be determined by the relative (transactions) costs associated with the two modes of entry. Specifically, the literature argues that the following are generally true: acquisition is the preferred mode of entry of diversified MNCs (Chatterjee, 1990; Zejan, 1990); MNCs that are strong relative to the local firms prefer Greenfield entries (Hennart and Park, 1993); acquisitions are more likely if the growth rate of the local industry is high, if the local industry is competitive, and if the size of the local affiliate is large relative to the size of the parent MNC (Chatterjee, 1990; Hennart and Park, 1993)

The choice between Greenfield entry and entry by way of acquisition would also be affected by factors determining the supply of acquirable companies. To begin with, the host country should have a secondary market for corporate-industrial assets in order for acquisition to be a viable mode of entry. For example, during the 1990s, it was easy for a MNC to enter the Central and Eastern European (CEE) countries by way of acquisition because many of the CEE countries were privatising their state owned enterprises through strategic sales to core investors. A MNC's ability to enter a host country by way of acquisition would also be enhanced if the host country has a liquid secondary market for equities, and if the financial structure of the country is capital market oriented, as opposed to bank oriented. Acquisition would also require the existence of high quality professionals like accountants and corporate lawyers in the host country, thereby facilitating the process of due diligence that precedes all acquisitions. Finally, since entry by way of acquisition requires lesser post-entry knowledge of the local market than a Greenfield entry – knowledge of product markets alone as opposed to knowledge of both product and factor markets – it is more probable when a MNC has relatively less informed about the business environment in the host country.<sup>6</sup>

In both cases, i.e., in the case of choice between joint venture and entering a country on one's own, and in the case of choice between Greenfield entry and acquisition, a MNC's eventual choice may ultimately be determined by regulations, especially in emerging markets. For example, a MNC may, in principle want to enter a host country on its own, but the host country's FDI regulations may require than foreign

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<sup>6</sup> In a slightly different vein, Gorg (2000) argues that Greenfield might be a better option for a MNC if the cost of gaining knowledge of the local market is lower than the cost of adapting the product to suit the local market conditions.

entrants to the relevant industry have a local partner. The MNC, of course, has the choice of not entering that country at all, but this may be detrimental to its long run business plans if the potential size of the host country's market is large and if a first-mover advantage is necessary to be profitable in the long run. In such a case, the MNC may opt to enter the host country in partnership with a local firm even if, sans constraints, it would have been optimal for it to enter on its own.<sup>7</sup> It is easy to see how such regulations can also affect the choice between Greenfield entries and acquisitions.

It is evident that in deciding whether or not to enter into a partnership with a local firm in a host country and, if such a partnership is deemed unwarranted, whether to opt for Greenfield projects or acquisitions, a MNC weighs the costs and benefits associated with each mode of entry. Specifically, the agency cost associated with sharing a proprietary technology with a local partner, is weighed against the (reduction in) transactions cost that can result from such a partnership. The transactions cost itself is determined by institutional factors such as the prevailing business environment and the attitude of the host country government towards foreign investors, as well as the extent to which the MNC affiliate requires local (tangible and intangible) assets for successful operation of the firm. The final decision is tempered by the potential size of the rent, and by factors such as the MNC's operational experience in the host country and/or related countries, its risk appetite, "cultural" distance, regulations, availability of acquirable firms etc.

Table 1 explains the rationale associated with the specific variables that explain the choice of the mode of entry, be it the choice between having and not having a local partner, or the choice between Greenfield and acquisition. It also explains how these variables were constructed from the available data. It is evident from the table that the specification for the model explaining a MNC's choice between entering a host country with and without a partner is as follows:

$$\begin{aligned}
 JV = & \beta_0 + \beta_1 \text{RNDPARENT} + \beta_2 \text{GDPPCPARENT} + \beta_3 \text{LOCINDGROWTH} \\
 & + \beta_4 \text{LOCINDCOMP} + \beta_5 \text{RELSIZE} + \beta_6 \text{RESSEEKING} \\
 & + \beta_6 \text{TANGIBLEINDEX} + \beta_7 \text{INTANGIBLEINDEX} \\
 & + \beta_9 \text{INSTENVIRON1} + \beta_{10} \text{INSTENVIRON2} + \beta_{11} \text{INSTENVIRON3} \\
 & + \beta_{12} \text{INCOUNTRY} + \beta_{13} \text{EMERGINGMKT} + \beta_{14} \text{MANAGERS} \\
 & + \beta_{15} \text{GEODISTANCE} + \beta_{16} \text{YEAROFENTRY} + \beta_{16} \text{FDILIBERAL} \\
 & + \beta_{17} \text{INDUSTLIBERAL} + u \qquad \qquad \qquad [1]
 \end{aligned}$$

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<sup>7</sup> The Indian insurance market, which restricts foreign equity ownership in insurance companies operating in India at 26 percent, has witnessed a significant number of joint ventures between Indian firms and multinational insurers who operate on their own in most (or all) other countries.

when  $JV$  is a dummy variable with value unity if the observed/reported mode of entry of a MNC into a host country was a JV, and where  $u$  is the *iid* error term.<sup>8</sup> Similarly, the specification for the model explaining the choice between a Greenfield and an acquisition is as follows:

$$\begin{aligned}
 \text{GREENFIELD} = & \gamma_0 + \gamma_1 \text{RNDPARENT} + \gamma_2 \text{INTANGIBLEINDEX} \\
 & + \gamma_3 \text{INCOUNTRY} + \gamma_4 \text{LOCINDGROWTH} \\
 & + \gamma_5 \text{DIVERSIFIED} + \gamma_6 \text{PVTSECTSHARE} \\
 & + \gamma_7 \text{PRIVATISATION} + \gamma_8 \text{FREQTAKEOVER} \\
 & + \gamma_9 \text{LOCFIRMINDEX} + \gamma_{10} \text{PROFESSIONAL} \\
 & + \gamma_{11} \text{YEAROFENTRY} + v \qquad \qquad \qquad [2]
 \end{aligned}$$

when  $GREENFIELD$  is a dummy variable with value unity if the observed/reported mode of entry of a MNC into a host country was Greenfield, and where  $v$  is the *iid* error term.

### 3. Data

Specifications [1] and [2] have been estimated using firm level data collected from South Africa and Egypt. The data were been gathered with the help of a common questionnaire that was administered to foreign investment companies in the two countries between November 2000 and April 2001. Prior to administration of the survey instrument, it was piloted and refined during the summer of 2000. The base population for the survey study was defined as all registered foreign direct investment projects that have been started between 1990 and 2000, and have a minimum employment of 10 persons, and minimum foreign equity stake of 10 percent. The time limit ensures that information concerning the establishment was part of the organization memory and therefore available at the time of the survey.

In both the countries, the questionnaire was administered by local research institutions experienced in data collection in the country.<sup>9</sup> The questionnaire was sent by mail or fax to a stratified random sample drawn from the base population. Specifically, efforts were made to make the cross-sector distribution of firms in the sample closely resemble the similar distribution for the population, and within each sector the firms were chosen randomly. In most cases, the aforementioned institutes followed up with the potential respondents by sending specifically trained assistants to interview the

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<sup>8</sup> Some of the MNC in the sample described their mode of entry as partial acquisition, implying lack of controlling stake in the local affiliate. These firms were treated as JVs.

<sup>9</sup> The data were collected by the Economic Research Forum in Egypt and by the EDGE Institute in South Africa.



CEO or an appropriate management executive in the firm. Response rates varied between 10 percent and 20 percent, and randomly selected additional firms were contacted where appropriate to achieve the target return of 150 companies per country.<sup>10</sup> Owing to missing value problems, eventually the maximum number of usable observations for South Africa and Egypt are 110 and 99 respectively.

Let us first take a brief look at the macro environments of South Africa and Egypt that are both African nations, but with few similarities. South Africa is a quasi-industrialised country with reasonably good infrastructure in comparison with other emerging markets,<sup>11</sup> which has played host to firms from advanced industrialised nations for decades. Despite the sharp depreciation of the rand towards the end of the 1990s, its per capita GDP in terms of nominal dollars stand at USD 2,685. At the same time, the income and wealth distribution in the country remains skewed, resulting in a Gini of 0.59. Egypt, by contrast, has a moribund industrial sector, and lower average levels of infrastructure. The per capita GDP of the country has increased continually over time, but in 2000, at USD 1,425, it was still about half that of South Africa. On the other hand, the socialist legacy of Egypt's economic policy has led to a much lower level of inequality, as indicated by the Gini of 0.29.

There are, however, points of similarity between the countries. Consumer price indices indicate that the countries have had similar level of inflation during the 1990-2000 period, highlighting possibly similar degree of macroeconomic stability. About a fifth of the people in both the countries have had tertiary education, indicating similar proportion of high skilled labourers in both populations. Importantly, given the context of our paper, as of 2000, both countries have had similar levels of net foreign direct investment (FDI) inflow, whether measured as a percent of GDP or in terms of FDI per capita. The legacy of FDI in the two countries, and the policies associated with them, however, are different, and are discussed in detail in Gelb (2003a) and Louis and Handoussa (2003).

The descriptive statistics obtained from the overall sample for each country, as well as for the manufacturing and services sectors of these countries, are presented in Table 2. It can be seen that the entry mode choices of MNCs are very different for the two countries. About two-thirds of the MNCs entering South Africa seek full control of the local affiliate, the corresponding fraction for MNCs entering Egypt is half. *A priori*, therefore, there is reason to believe that a MNC is likely to gain significantly

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<sup>10</sup> In Egypt, this process led to over-sampling of the Greater Cairo area, and an over-sampling of firms operating in the tourism industry. At the same time, the manufacturing and financial sectors were under-sampled.

<sup>11</sup> The number of telephone lines per 1000 people has been used here as an indicator of the average level of infrastructure in existence in the country.

by tying up with a local partner when operating in Egypt, much more so than in South Africa. This could be a reflection of both relatively high transactions cost of acquiring resources in Egypt, whose factor markets are not as developed as in South Africa, and the fact that services sector firms were over-sampled in Egypt, the need for intangible assets of services sector firms being higher, in general, than the corresponding need for manufacturing firms. On the other hand, among MNCs that decided to enter Egypt on their own, 89 percent opted for Greenfield mode of entry while about half such MNCs entered South Africa by way of acquisition. This is possibly a reflection of the fact that there are a lot more acquirable firms in South Africa than in Egypt, especially in light of the familiarity of the western firms with the South African industrial sector during the decades of apartheid.

The descriptive statistics also suggest the following:

- a. South Africa attracts more sophisticated MNCs, who spend a greater share of their sales revenues on R&D, as compared to MNCs that enter Egypt. The former are also from more developed countries, as indicated by the per capita GDP of these countries. This is consistent with the fact that MNCs operating in South Africa came from countries quite far from it, largely from North America and North/West Europe, while a significant proportion of the investors in Egypt are from the Middle East-North Africa (MENA) region.<sup>12</sup>
- b. Neither the affiliates in South Africa nor those in Egypt constitute a significant part of the worldwide operations of the parent MNCs. This too is consistent with the observation that the bulk of the output of these affiliates are targeted towards the local markets, which are not very large, indicating that these affiliates do not constitute significant manufacturing and export bases for the MNCs.
- c. The MNCs entering both the countries source a small fraction of their required tangible resources from the host countries, but they source a significant part of their intangible assets from either country. This is consistent with the observation that more than 80 percent of the MNCs operating in both countries sell more than half their output in the local market.<sup>13</sup>
- d. The economic policies of South Africa, as well as the attitude of its central and local governments are not particularly FDI-friendly, having scores of about 2.5 on a 5-point Likert scale. But they are deemed significantly better than the policies of and the governments' attitudes in Egypt.<sup>14</sup> Interestingly, however,

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<sup>12</sup> The home country of the average investor in South Africa is more than 10,000 miles away from it, the corresponding distance for the average investor in Egypt is less than 4,000 miles.

<sup>13</sup> To reiterate, a MNC is deemed resource seeking if it sells less than 50 percent of its products in the local market.

<sup>14</sup> The indices reflecting local business conditions and institutional strength were measured using inverted 5-point Likert scale where 1 is best and 5 is worst.

local FDI-specific and industry-specific regulations are deemed more investor-friendly by MNCs operating in Egypt than by those operating in South Africa.

Further, even without taking into consideration the underlying distributions of the reported variables, it is evident that there are significant differences between the manufacturing and the services sectors. In South Africa, for example, 35 percent of the manufacturing MNCs opted for a local partner at the time of entry, as opposed to 28 percent of the services sector firms. The difference is more striking when we take into consideration the choice between acquisition and Greenfield projects for firms which opted to enter South Africa without a local partner; about 48 percent of the manufacturing sector MNCs entered with Greenfield projects while about 64 percent of the services sector MNCs went the Greenfield route.

In both South Africa and Egypt, there are noticeable difference between the manufacturing and the services sectors, and the type of MNCs these two sectors attracted. Services sector firms, on average, are from more economically developed countries, as manifested in the higher per capita GDP of the home countries. Further, in the case of Egypt, services sector MNCs are from countries that are relatively further away that the home countries of the manufacturing sector MNCs. In both countries, but especially is South Africa, the services sector growth exceeded the manufacturing sector growth during the 1990s. Further, in both countries, but especially in Egypt, there is a noticeable gap between the extent of liberalisation of the two sectors.

The above discussion and the statistics presented in Table 2 suggest that irrespective of whether we take into consideration macro environments or local institutions or FDI/industry-specific regulations, South Africa and Egypt are similar in some ways but dissimilar in many other ways. These differences are reflected in the differences in the modes of entry choice of the MNCs. The statistics also suggest that there are also noticeable differences between the manufacturing and services sectors. In other words, *a priori* there is reason to believe that not only should the choice of the mode of entry be explored individually for each country, but also that an adequate distinction should be made between the manufacturing and services sectors. The specific factors impacting the choice of entry mode in the two countries and the two sectors are highlighted in the next section.

#### 4. Regression Results

As mentioned above, the empirical exercise has three different aims: (a) demonstrate that the factors affecting the choice of entry mode can be very different for the manufacturing and the services sectors, (b) demonstrate that the factors affecting the choice of entry mode are significantly different in countries that are themselves very different, and (c) highlight the factors that affect both the JV/non-JV choice and the Greenfield/acquisition choice. In keeping with this objective, we proceed as follows:<sup>15</sup> First, we estimate specification [1] using the entire samples for South Africa and Egypt, and, for each country, using the sub-samples comprising manufacturing and services sector firms.<sup>16</sup> The coefficient estimates from this exercise are reported in Table 3. Second, in order to maximise the degrees of freedom for the regression analysis, we re-estimate specification [1] with the overall samples for each of the two countries, after adding to the specification an interaction term between each of the explanatory variables and a dummy variable which takes the value unity if a firm belongs to the manufacturing sector. The resultant coefficient estimates are presented in the first four columns of Table 4. Third, once again for the sake of maximising degrees of freedom, we estimate specification [2] after embellishing it with similar interactions between the explanatory variables and the dummy for the manufacturing sector. These coefficient estimates are reported in the last three columns of Table 4.

The coefficient estimates presented in Table 3 clearly indicate that the factors determining the choice of entry mode of a MNC are very different for the manufacturing and the services sectors, at least in so far as the choice between a JV and a non-JV entry are concerned. Let us first take a look at the coefficient estimates for South Africa, presented in the first three columns of the table. For a manufacturing firm, the probability of entering South Africa with a local partner increases with the extent to which the MNC is dependent on the local market for tangible resources, and the perception of the MNCs about the quality of local managerial labour. This probability decreases with improvements in the quality and extent of stability of local economic policies. For services sector firms entering South Africa, on the other hand, the probability of opting for a local partner decreases with the extent to which the MNC is dependent on the local market for tangible resources, operating experience in other emerging markets, and extent of liberalisation of the local industry. This

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<sup>15</sup> Given that the dependent variable is binary in nature, it is obvious that the estimation process would involve the use of either probit or logit models. In keeping with much of the literature, we have opted for the logit model.

<sup>16</sup> Since services sector firms were over-sampled in Egypt, the number of observations in the manufacturing sub-sample was not enough for convergence of iterations of the logit model. Hence, for Egypt, we have the coefficient estimates for the overall sample and the services sector sub-sample. As we shall see later, these coefficient estimates, however, are sufficient to highlight the fact that the factors determining the entry mode choice in manufacturing and services sectors are very different.

probability increases with country-specific experience. Indeed, the only similarity between the entry mode choice of manufacturing and services sector firms is that JVs were more likely for both types of firms if the entry took place in the early 1990s, as compared with entries that took place in the late 1990s.

As mentioned in footnote 16, the sample size for the manufacturing firms in Egypt was not enough to bring about convergence in the iterative process that is associated with logit models. Hence, coefficient estimates for the determinants of entry mode choice in the Egyptian manufacturing sector could not be reported in Table 3. However, the coefficient estimates for the overall sample and the sub-sample comprising of only services sector firms, reported in the fourth and fifth columns of the table respectively, are very different, in terms of both magnitude and, more importantly, significance, a phenomenon that was also observed in the South African case. For example, while it matters in the overall sample as to whether or not a MNC is resource seeking, and whether or not the local policy environment is investor-friendly, these factors have no impact on the choice of entry mode of the services sector firms. This suggests that the significance of the dummy variable indicating whether or not a MNC is resource seeking and the index of local policy environment in the overall sample are driven by the manufacturing sector firms. In other words, there is *prima facie* evidence to conclude that the factors determining the choice of entry mode are different for manufacturing and services sector firms, at least in so far as the choice between a JV and a non-JV entry are concerned.

Since the main constraint we face is the sample size, it would be best to use the overall sample for each country. In that case, as mentioned before, the difference between the manufacturing and the services sector firms can be captured adequately if the explanatory variables are interacted with a dummy variable that takes the value unity if a firm belongs to the manufacturing sector. The coefficient estimates in the first four columns of Table 4 indicate that the determinants of entry mode are different for South Africa and Egypt, when the choice involves having and not having a local partner.<sup>17</sup> Indeed, while the choice of entry mode of an average MNC operating in South Africa depends significantly on whether or not it is resource seeking, and the extent to which it sources tangible resources from the local partner/market, the choice of the an average MNC operating in Egypt depends largely on the government's attitude towards foreign investors, and the extent of liberalisation of FDI regulations

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<sup>17</sup> Note that the index for the liberalisation of local industry had to be dropped from the specification for Egypt because it was collinear with the index of liberalisation of FDI regulations. Further, inclusion of an interaction between the dummy variable indicating whether or not a MNC is resource seeking and the dummy variable indicating whether it belongs to the manufacturing or the services sector leads to problems with the convergence of the iterative process. When introduced in the specification separately from other interaction terms, the coefficient of the resource seeking-manufacturing interaction is not significant. Hence, it has been dropped from the specification.

in the country. The only point of commonality between the two countries is that in both countries early entrants were more likely to opt for local partners than late entrants.

It can also be seen that the determinants of choice of entry mode are different for the manufacturing and the services sector, or, where the same factor has an impact of choice of entry mode in both sectors, the extent of the impact is different for the two sectors. For example, in Egypt, the extent to which a MNC sources tangible resources from the local partner/market is not an important determinant of the choice of entry mode for services sector firms, but it is an important determinant of the choice of entry mode for the manufacturing sector firms. Similarly, in South Africa, the extent of liberalisation of the local industry is not an important determinant of entry mode choice for services sector firms, but it influences the choice of entry mode of manufacturing firms. At the same time, while the extent of liberalisation of FDI regulations matter for both manufacturing and services sector firms in Egypt, the absolute impact of this factor on entry mode choice is much more for services sector firms than for manufacturing firms. Similarly, while the extent to which an average MNC sources tangible resources from the local partner/affiliate matters for both manufacturing and services sector MNCs operating in South Africa, significant dependence on the local partner/market inclines a manufacturing MNC towards partnership with a local firm, even as a services sector MNC becomes more inclined to entry without a local partnership.

We can now take a look at the specific determinants of the choice of mode of entry in the two countries. A MNC entering South Africa was more likely to have a local partner if they felt that the local conditions were not conducive to doing business, and if they had prior operating experience in the country, thereby alerting them to the quality of potential local partners. Both these are consistent with our *a priori* expectations about the nature of impact of these variables on the choice of the mode of entry. However, it is not obvious why a resource seeking MNC is more likely to enter without a local partner. The puzzle is somewhat alleviated in the case of manufacturing MNCs who are more likely to opt for a local partner if they source a significant proportion of their required tangible resources from the host country, but, by the same token, the puzzle deepens for services sector MNCs.

It is evident that, in the South African context, by and large, the decision about the choice of a local partner is influenced by the same variables that influence this decision in developed market economies. Furthermore, with one exception, the nature of the impact of these variables on the aforementioned decision is consistent with the *a priori* hypotheses which themselves are based on empirical analysis conducted

largely in the context of developed market economies. This is not surprising given that, owing to its political and economic legacy, and despite the large inequities in terms of wealth and income distribution, South Africa is more similar to developed market economies than to an average developing country in the African continent. More importantly, these results indicate that the specification developed on the basis of empirical analyses using data from developed market economies is also applicable to data collected from emerging markets if the extent of market failure is not significant and if business processes are not significantly subverted by unobserved political economic factors.

As mentioned before, In the Egyptian context, the probability of entering with a local partner decreases as the local FDI regulations are liberalised. However, it is not obvious as to why manufacturing firms that source a significant proportion of their required tangible resources from the host country are less likely to enter Egypt without local partners than others. Even more puzzling is the fact that the probability of a MNC's entry with a local partner decreases as the government's attitude towards foreign investment becomes less conducive to doing business. These counter-intuitive results suggest that in the Egyptian case unobserved and unmeasurable political economic factors play a more important role in the decision about the choice of a local partner than measurable "economic" factors that affect transactions cost in more developed market economies that have well developed market institutions.

Interestingly, the R&D intensity of a MNC's product does not matter at all in determining the choice of entry mode, when the choice is between having and not having a local partner. This possibly suggests that MNCs do not manufacture high R&D intensive or cutting edge products in emerging markets where skills of the local labour force are suspect and where the sanctity of contracts and intellectual property rights are questionable.<sup>18</sup> It might also be a reflection of these countries' comparative advantage, and hence the sectors in these countries that attract MNC investment.<sup>19</sup> In both South Africa and Egypt, some of the key determinants of choice of entry mode are those that affect the transactions cost of doing business in South Africa, namely,

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<sup>18</sup> Note that the view of the firms about local managerial labour, business conditions etc are perceptions of the firms' management about the country, and perceptions are inherently conditional upon the priors they had about comparable countries. In other words, saying that the quality of labour or the business environment in an emerging market is "good" (say, 4 on a 5-point scale) does not imply that the quality of labour or business environment in that country is comparable with those in a developed country which are typically the home of the MNCs. It simply implies that the quality of labour or business condition in that market is "good" relative to the priors people have about emerging markets in general.

<sup>19</sup> Egypt, for example, attracted a lot of investment from MNCs specialising in trade and tourism, sectors whose products are, by definition, not R&D intensive. Similarly, attracted a lot of investment from financial services firms. Details about sectoral distribution of the firms included in the sample can be found in Gelb (2003b) and Handoussa, Louise and Mahdy (2003).

whether or not a MNC is resource seeking, the extent to which tangible resources are sourced from the local partner/market, the business conditions as manifested by the ease with which a MNC can obtain business licences, visa for expatriate managers etc, and by operating experience either within that country or in similar countries.

We have thus far demonstrated the following: (a) the choice of entry mode varies not only across countries with different policies, political and economic legacies and institutions, but also across sectors (broadly speaking, manufacturing and services), and (b) in both the emerging markets regulations and factors influencing transactions cost of doing business were determinants of the choice of the entry mode, rather than technology embedded in the products of the MNCs. However, heretofore we restricted the choice of entry mode to choice between entering with or without a local partner. What, however, determines the choice of entry mode once a MNC decides to enter an emerging market on its own, i.e., by way of acquisition or a Greenfield project? This question is addressed by regression results obtained from estimation of specification [2]; the results are reported in the last three columns of Table 4.

Once again, in order to maximise the degrees of freedom, the overall sample is used for the estimation process, and the specification has been augmented by inclusion of interactions between the explanatory variables are a dummy variable that takes the value unity if a firm belongs to the manufacturing sector. The sample of firms that entered Egypt without a local partner is, however, not large enough to enable the inclusion of the interaction terms without causing the iterations to collapse. Hence, in the Egyptian case, each interaction term was introduced in the specification separately, and dropped if it did not have a significant coefficient. None of the interaction terms was significant in the Egyptian context. Hence, specification [2] was estimated with the Egyptian data without including any interaction terms in the specification.

The results indicate that in South Africa there is a significant difference between the choice of entry mode of manufacturing and services sector MNCs that chose to enter without a local partner. The only factor that affects the choice of entry mode of services sector firms is the extent of intangible assets they have to source from the local market. Indeed, both manufacturing and services sector MNCs entering South Africa preferred to enter by way of acquisition if their need for local intangible resources were high. This is consistent with the argument that acquisition of a local firm would provide the MNC with local networks that constitute intangible assets, and would, therefore, reduce the MNCs transactions cost of doing business in the host country.



The choice of entry mode of an average manufacturing MNC that chose to enter on its own, however, depends on a number of other factors. A manufacturing MNC entering South Africa preferred the Greenfield mode of entry if it had substantial in-country experience which presumably added to its local networks and stock of intangible assets. Such a MNC was more likely to acquire a local firm if the quality of local firms were good with respect to product range, and managerial and marketing capabilities. However, the MNC was averse to acquiring local firms if, on average, they were technologically advanced and had high levels of labour productivity. Assuming that there is a strong positive correlation between state of technology and productivity, and the valuation of a firm, such behaviour of a MNC is easily explained. The importance of valuation to manufacturing MNCs is also evident from the fact that they are more inclined to acquire local companies if they perceive that the quality of local accountants and lawyers, who are a vital part of the valuation process that precedes acquisition, is good. Finally, while the technology embodied in the MNCs' product did not affect a MNC's choice between entry into South Africa with and without partners, it can be seen that the R&D intensity of the product does have an impact on the choice between acquisition and Greenfield entry; as expected, the probability of Greenfield entry increases with the R&D intensity of the MNC's product.

We have already seen that, in Egypt, there is no difference between the choice of entry mode of an average manufacturing firm and an average services sector firm, when the choice is between acquisition and Greenfield entry. Indeed, none of the interactions with the manufacturing dummy variable had significant coefficients, and were dropped from the specification for the sake of parsimony and to facilitate the convergence of the iterations. In Egypt, the main determinants of the choice of mode of entry of MNCs were, once again, regulations, as manifested in the time of entry, and the extent of cross-border acquisitions in the local industry. Further, as in transition economies of Central and Eastern Europe, privatisation of state owned enterprises encouraged foreign acquisitions during the 1990s. As in the case of South Africa, the ability of a MNC to pursue high quality due diligence and thereby decide on the correct valuation of local firms with the help of local accountants and lawyers significantly affected its choice between acquisition and Greenfield entry. Not surprisingly, MNCs with local experience were more likely to opt for Greenfield in the Egyptian context. However, it is not evident as to why a MNC was more likely to opt for Greenfield entry in a fast-growing industry where acquisition would have given it a quicker foothold in the local industry.

## **5. Concluding Remarks**

The aim of this paper was to address three different lacunae in the literature. First, the paper has brought into focus a comparison between two emerging markets that have very different political and economic legacies, institutions and business environment. The results are consistent with the prior that the determinants of the choice of entry mode would be different for these two countries. Second, it has distinguished between the manufacturing and services sectors during the empirical exercise, and the results have borne out the hypothesis that the determinants of the choice of the mode of entry are different for these two broadly defined sectors. Third, starting with specifications based on the existing literature, the paper has demonstrated that the largely stylised specification usually used in the context of developed market economies, by and large, yields meaningful result in the context of entry into emerging markets, more so if the emerging market (e.g., South Africa) has well functioning markets and market institutions to some extent.

An interesting upshot of the empirical exercise is that in the context of emerging markets regulations and factors that determine the transactions cost of doing business are the key determinants of the choice of the mode of entry. The role played by the technology embedded in the MNCs' products in determining the choice of entry mode is largely insignificant. As mentioned above, this is possibly a reflection of the popular wisdom that MNCs from developed countries rarely produce their state of the art products in emerging markets. This implies that a MNC from a developed country is more likely to produce a somewhat dated product and/or components of their state of the art products in such markets, and inference that is consistent with popular wisdom. This inference brings into question the extent to which an emerging market can gain in terms of transfer of technology and know-how, at least in the medium run. However, a discussion of spillovers from FDI remains outside the scope of this paper.

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**Table 1**  
**Determinants of Mode of Entry, Rationale, and Measurement**

<b>Determinant of entry mode</b>	<b>Rationale</b>	<b>Measurement</b>
<i>With vs. without local partner</i>		
Quality of proprietary technology (Gleason, Lee and Mathur, 2002; Smarzynska, 2000; Caves, 1996; Kim and Hwang, 1992)	The better the quality of this technology, the greater would be the reluctance of a MNC to take a risk regarding the dissemination of the technology, and share the rent accruing on its account. In other words, a high quality of proprietary technology would be more consistent with a MNC entering a host country on its own.	We measure this quality with a MNC-specific and a MNC's country of origin-specific variable, namely, the research and development (R&D) intensity of the MNC and the level of development of the parent country respectively. The proxies for these variables are the R&D expenditure to sales ratio (RNDPARENT), and the per capita GDP of the parent country in the year of entry of the MNC to the host country (GDPPCPARENT).
Potential size of rent from operations in the host country (Barbosa and Louri, 2002; Agarwal and Ramaswami, 1992; Kogut and Singh, 1988a)	The mode of entry of a MNC in a host country depends on the size of the rent that a MNC can extract on account of its proprietary technology and this, in turn, depends on the size of the market and the extent of competition faced by the MNC in the host country market. Since the size of the potential rent increases with the market size, and decreases with the extent of competition, a MNC is likely to be more reluctant to undertake the risk of operating in a host country on its own, and hence opt for a local partner in the form of a JV, if the market size (or its growth rate) is small and if it faces significant competition in the host country.	We measure the size of the market with the average growth rate of the industry of the MNC's entry during the 1990s (LOCINDGROWTH), and the extent of competition in the local market by the number of firms operating in the local market (LOCALCOMP).
Size of operations in host country (Gatignon and Anderson, 1988)	If the size of operations in a host country required to experience scale efficiencies etc. is large, a MNC may behave in two very different ways. On the one hand, it may not want to enter that country on its own because of two different reasons: it may not be able to raise the financial resources required to undertake an operation of that size at an acceptable cost, and/or it may be reluctant to undertake the risk associated with the significant investment on its own. In either case, the MNC is likely to opt for a local partner. On the other hand, if the size of the local affiliate is large, such that any reasonable exposure to that affiliate constitutes a large financial exposure for the MNC, it might want to retain control over the local affiliate by going alone.	We use the ratio of the sales from the host country affiliate to the overall sales of a MNC as (RELSIZE) as a proxy for the size of the local affiliate.
Importance of local resources to production	We have already seen that if a MNC has a product that is R&D intensive, it would prefer to have control over the operations of its local affiliate, and would therefore	We use three different measures of a MNC's need for local resources. We combine the

<p>process (Asiedu and Esfahani, 2001; Teece, 1986)</p>	<p>prefer to enter the local country on its own. On the other hand, if the MNC's product is intensive in the resources of the host country, it might seek local partnership to minimise the costs associated with putting together the required resources.</p>	<p>importance of 7 tangible resources<sup>20</sup> and 9 intangible resources<sup>21</sup> with information about the source from which these assets were obtained to generate two indices, one each for tangible (TANGIBLEINDEX) and intangible resources (INTANGIBLEINDEX). The procedure for the creation of these indices has been explained in Appendix 1. Further, we argue that a MNC is resource seeking (RESSEEKING) if less than 50 percent of its output is sold in the local market.<sup>22</sup></p>
<p>Institutional environment in the host country (Agarwal and Ramaswami, 1992)</p>	<p>A MNC is likely to opt for a local partner if the institutional environment in the host country is not conducive to profitable business environment. The local partner can be instrumental in facilitating the process of obtaining, for example, business licences and work permit for expatriate managers sent to the host country by the MNC, as well as liase with the local and central governments, the regulators and the legal authorities to ensure that the operations of the MNC's affiliate are not interrupted.</p>	<p>We measure the institutional environment in the host country at the time of the MNC's entry using three indices, one measuring the ease with which business licences, work permits, visas for expatriates etc. can be obtained (INSTENVIRON1), one measuring the stability of government policies and the effectiveness of law enforcement (INSTENVIRON2), and one which measures the extent to which government actions are FDI-friendly at the local and central levels INSTENVIRON3).<sup>23</sup></p>
<p>In-country and emerging market experience (Barbosa, Guimaraes and</p>	<p>A MNC with operational experience in the local emerging market, or similar countries, can behave in two different ways with respect of choice of mode of entry. On the one hand, the MNC may enter the host country on its own if it has significant</p>	<p>We account for these with the help of two dummy variables, one each for country-specific (INCOUNTRY) and similar emerging</p>

<sup>20</sup> These are buildings and real estate, equity, loans, machinery and equipment, patents, sales outlets, and licences.

<sup>21</sup> These are brands, business network, distribution network, managerial capabilities, innovation capabilities, marketing capabilities, networks with authorities, technological know-how, and trade contacts.

<sup>22</sup> While estimating the regression models, we experimented with several cut-offs to distinguish between resource seeking and market seeking MNCs, namely, 50, 40, 30 and 20. The results were robust to the choice of the cut off.

<sup>23</sup> The indices are averages of the firms responses to queries about the institutional factors at the time of their entry into the host country. The responses themselves were on a 5-point Likert scale.



Woodward, 1998; Cleeve, 1997; Erramilli, 1991; Kogut and Singh, 1988b)	country-specific experience and/or it has significant experience of operating in similar markets. On the other hand, in-country experience may alert the MNC about the existence of trustworthy and suitable local partners, thereby prompting it to enter in the form of JV.	market (EMERGINGMKT) experience.
Perceived quality of local executive management	It is reasonable to assume that the production process, and indeed the business practices of a MNC are more complex and sophisticated than those in an emerging market. If a MNC, therefore, believes that the quality of managerial leadership in the host country is of poor quality then it is more likely to opt for entering the country on its own, and use its own management to run the business, rather than share managerial responsibilities with a local partner which may have a detrimental effect on the quality of management of the local affiliate.	We proxy the quality of managerial labour in the host country using a qualitative Likert-scale based measure of the perception of the MNCs about the quality of executive management in the host country, during their year of entry (MANAGERS).
Cultural distance	The ability of a MNC to understand and adapt to the business and institutional environments in a host country would depend not only on the extent of the MNC's exposure to these environments, but also on the extent of "cultural" similarities between the host country and the country of the MNC's origin. For example, <i>ceteris paribus</i> , it would be easier for MNC from a country with a legal system based on common law to adapt to the business and institutional environments in an emerging market with a similar legal system than for a MNC with a different legal structure. Viewed from this perspective, a large "cultural" distance favours the formation of JVs. At the same time, however, a large "cultural" distance may prove a hurdle for the development of the kind of trust that is necessary to form local partnerships. Hence, the impact of "cultural" distance on the choice of the mode of entry may vary from one context to another.	Since "cultural" differences are difficult to measure, we use the geographical distance between the host country and the country of a MNC's origin (GEODISTANCE) as a proxy for it. <sup>24</sup>
Time of entry in the host country	Government policies regarding FDI, and the consequent regulations, change over time. In particular, in the early stages of liberalisation, emerging market governments usually favour JV as the mode of entry because of the belief that a JV leads to greater transfer of technology and state of the art business practice to the local industry. Over time, and with greater liberalisation of FDI norms, Greenfield projects and acquisitions become more viable modes of entry. Hence, there is need to control for the time of entry of a MNC in a host country.	We control for the regulation-cum-time effect using a trend variable that has value 1 for 1990, and value $n$ for the $n$ -th calendar year subsequent to it (YEAROFENTRY), and also with two different measures of the regulatory paradigm governing FDI in a host country: the perceived extent of liberalisation of FDI norms is measured by two qualitative

<sup>24</sup> The estimation of the geographical distance was made as accurate as possible to account for inter-regional "cultural" differences within the host countries and the MNCs' countries of origin. For example, in the case of firms from the USA investing in Egypt, the geographical distances between Cairo and the cities in which the MNCs have their headquarters – New York, Chicago, Atlanta etc – were estimated.

		responses about the extent of liberalisation of the FDI regulations (FDILIBERAL) and the regulations pertaining to industry of the MNC affiliate (INDUSTLIBERAL).
<b>Greenfield vs. Acquisition</b>		
Quality of proprietary technology (Doukas, 1995; Hennart and Park, 1993)	If the R&D intensity of a MNC's product the probability of a significant overlap between the product and process of the MNC – what we call technology – and those of local firms in an emerging market are likely to be low. <sup>25</sup> Hence, the overall cost of acquiring and restructuring an existing local firm may be substantially higher than the overall cost of entering by way of a Greenfield project. In other words, Greenfield entry is more likely if the R&D intensity of the MNC's product is high. Alternatively, Greenfield entry is more likely if the capability of the MNC is high. In such an event, the MNC would have little to gain if it has to pay a high premium for acquisition.	As above.
Importance of local intangible resources to the operations of the local affiliate Kogut, 1991; (Jaffee, Trachtenberg and Henderson, 1993)	If a MNC requires a significant amount of local intangible assets to operate successfully in a host country, and if these assets – namely, distribution networks, business networks etc. – are firm-specific and cannot be purchased as such from the market, the MNC is likely to opt for acquisition of a local firm as opposed to entering the host country with a Greenfield project.	We measure a MNC's need for local intangible assets using the aforementioned <i>INTANGIBLEINDEX</i> .
In-country experience (Anand and Delios, 2001)	If a MNC has significant operational experience in a host country, it would have extensive knowledge both about the quality of individual local firms, as well as the intangibles that determine the extent of agency costs subsequent to acquisition of one such firm. A reduction in this informational asymmetry between a MNC and local firms would increase the probability of acquisitions. In other words, the probability of an entry by way of acquisition would increase with the in-country experience of a MNC.	As above.
Growth rate of the local industry (Hennart and Park, 1993; Chatterjee, 1990)	If the local industry is fast growing, it is important for the MNC to quickly put into place its resource/supply and chains and distribution networks, so as not to fall behind the competition. At the same time, local firms may require equity and/or	We use the average growth rate of the industry during the 1990s (LOCINDGROWTH) as the measure of growth of the local industry.

<sup>25</sup> Anand and Delios (2001) argue that the propensity for cross-border acquisition is invariant to the technological difference between the MNC's home country and the host country. However, given that they use OECD data, whereby the cross-country differences in technological abilities is not nearly as high as the cross-country difference between developed economies and emerging markets, the impact of technological difference on the choice between Greenfield entry and acquisition remains an empirically open question.

	technology injection to keep up with or overtake the competition. Both these factors would raise the relative probability of acquisitive entry over Greenfield entry.	
Degree of diversification of industry (Chatterjee, 1990; Zejan, 1990)	If a MNC continues to operate in its core line of business after entering a host country, it has to bear low levels of cost for acquiring resources that are unrelated to its core line of business. If, on the other hand, it embarks upon operations that are unrelated to its core business, the cost of acquiring the complementary resources can be significant. Hence, a MNC is more likely to choose acquisition as the mode of entry, and bear the cost of restructuring, if it is a diversified firm that can minimise the cost of putting together the required basket of complementary resources if it acquires a local firm that embodies all these resources.	We use a dummy variable to capture this determinant of entry mode choice (DIVERSIFIED); the dummy variable has value unity if the MNC is diversified.
Supply of acquirable firms (Hennart and Park, 1993; Chatterjee, 1990)	A MNC's ability to acquire a local firm in a host country, thereby entering the country by way of acquisition as opposed to a Greenfield project, would also depend on the availability of acquirable firms. <i>Ceteris paribus</i> , the opportunity to acquire a local firm would be higher if there share of the private sector in the economy is high, if the host country has an active privatisation programme that would allow MNCs to buy into appropriate state owned enterprises, if there are industrial assets of value in the host country, and if FDI regulations allow acquisition of local firms.	The data provides us with categorical measures of the share of the private sector in a host country (PVTSECTSHARE), <sup>26</sup> and the level of privatisation achieved in that country (PRIVATISATION). Further, we use a measure of the ease with which a MNC can <i>de facto</i> acquire a local firm is measured by a categorical variable indicating the frequency of foreign takeover of local firms during the 1990s (FREQTAKEROVER). <sup>27</sup> Finally, we an index of the quality of firms in the local industry (LOCFIRMINDEX) <sup>28</sup> to measure the value of potentially acquirable industrial assets in the host country. <sup>29</sup>

<sup>26</sup> The categorical variable takes on the value 1 for 0-5 percent share of the private sector in the host economy, the value 2 for 5-20 percent share, the value 3 for 20-40 percent share, the value 4 for 40-60 percent share, the value 5 for 60-80 percent share, and the value 6 for 80-100 percent share.

<sup>27</sup> While *FDILIBERAL* and *INDUSTLIBERAL* are measured on a 5-point Likert scale, *FREQTAKEROVER* and *PRIVATISATION* are measured on a 4-point Likert scale.

<sup>28</sup> Our survey instrument allowed us to record the perception of the MNC affiliates' management about five aspects of the firms in the local industry at the time of their entry: quality and range of products and services, management capabilities, marketing capabilities, level of technology, and labour productivity. The use of Cronbach's alpha suggested that the first three can be combined to form one index (LOCFIRMINDEX1) and the latter two have to be combined separately to form a second index (LOCFIRMINDEX2) of local firms' quality at the time of entry. Hence, two different indices were used in the actual estimation process.

<sup>29</sup> We asked MNCs to compare the quality of their affiliates in 5 different categories – quality and range of products and services, management capabilities, marketing capabilities, level of technology, and labour productivity – to that of local firms in the same industry on a 5-point Likert scale. An use of the Cronbach's alpha suggested that the individual scores on the 5-point scale can be combined to yield an unified index of quality of firms in the local industry.

Supply of professionals	When a MNC decides to acquire a local firm, it has to evaluate on its own the value of the industrial assets that are potentially acquirable. Hence, prior to acquisition of a local firm, a MNC has to undertake a due diligence process that requires input from professionals like lawyers and accountants. The cost of using such professionals from the MNC's country of origin can be prohibitively high given that these professionals would have to "learn" the local legal structure and accounting practice before they can provide reasonable input to the MNC's decision-making process. Hence, acquisition is more likely if a host country has a steady supply of high quality professionals who can help a MNC in the process of due diligence.	We measure this by a categorical (5-point Likert scale) measure of the quality of such professionals in the host country at the time of the MNC's entry (PROFESSIONAL).
Time of entry in the host country	As with the choice between a JV and a non-JV mode of entry, the choice between a Greenfield and an acquisition may be determined by government policies.	As above.

**Table 2**  
**Descriptive Statistics**  
**(South Africa and Egypt compared)**

	South Africa			Egypt		
	Manufacturing	Services	Overall	Manufacturing	Services	Overall
Percent of MNCs with partial control	35.00	28.00	33.62	51.16	51.78	52.00
Percent of MNCs with controlling stake entering with Greenfield projects	43.58	63.88	53.33	90.47	88.89	89.58
R&D expenditure as % of turnover (1-6)	4.08	3.60	3.84	2.41	2.37	2.41
GDP per capita of MNC home (USD)	21397.36	24702.76	22806.17	16963.38	19645.71	18338.24
Growth rate of local industry ('90s)	11.26	16.18	13.67	12.82	13.77	13.29
Extent of local competition (1-5)	3.43	3.60	3.51	2.79	3.55	3.24
Size of local affiliate relative to global turnover (1-7)	3.10	2.78	3.02	3.34	3.32	3.33
Index for tangible resources (0-100)	19.69	18.59	20.01	22.47	26.86	24.70
Index for intangible resources (0-100)	52.14	46.05	50.62	38.16	45.45	42.67
Percent of MNCs that are resource seeking	16.66	14.00	15.92	11.62	21.42	17.00
Index of local business conditions (1-5) <sup>†</sup>	2.47	2.46	2.47	2.83	2.75	2.80
Index of local policy environment (1-5) <sup>†</sup>	2.40	2.46	2.42	3.17	3.23	3.19
Index of local government attitude (1-5) <sup>†</sup>	2.70	2.66	2.70	3.08	3.16	3.14
Percent of MNCs with in-country experience	75.00	70.00	72.56	65.11	62.50	64.00
Percent of MNCs with other emerging market	90.00	86.00	87.61	86.04	94.64	91.00
Quality of local managers (1-5)	3.38	3.42	3.42	3.37	3.73	3.57
Cultural distance (kms.)	10156.23	10149.02	10194.94	3131.95	4345.08	3801.95
Average age of MNC (relative to 1990)	6.60	6.20	6.41	5.74	7.05	6.49
Liberalisation of FDI regulations (1-5)	1.91	2.04	1.97	2.95	3.46	3.25
Liberalisation of local industry (1-5)	2.26	1.62	1.97	2.95	3.53	3.29
N	60	50	110	43	56	99

Source: Authors' own calculation based on sample data.

Note: <sup>†</sup> Inverted scale (1 = best, ..., 5 = worst)

**Table 3**  
**Determinants of mode of entry: With vs. without local partner**  
**(Manufacturing vs. Services sectors)**

	South Africa			Egypt	
	Overall	Manufacturing	Services	Overall	Services
Constant	- 6.01 ** (2.71)	- 11.12 (5.24)	1.01 (6.78)	- 3.15 (2.56)	- 4.46 (8.92)
R&D expenditure as % of turnover (RNDPARENT)	- 0.09 (0.12)	0.15 (0.22)	- 0.40 (0.33)	- 0.29 * (0.16)	- 0.49 (0.34)
GDP per capita of MNC home (GDPPCPARENT)	- 0.00 (0.00)	- 0.00 (0.00)	- 0.00 (0.00)	- 0.00 (0.00)	- 0.00 (0.00)
Growth rate of local industry ('90s) (LOCINDGROWTH)	- 0.02 (0.02)	- 0.05 (0.05)	- 0.03 (0.05)	- 0.01 (0.02)	0.07 (0.05)
Extent of local competition (LOCINDCOMP)	- 0.34 * (0.20)	- 0.51 (0.38)	- 0.92 (0.60)	- 0.29 (0.22)	- 0.48 (0.49)
Size of local affiliate relative to global turnover (RELSIZE)	0.03 (0.15)	- 0.12 (0.26)	0.24 (0.45)	0.11 (0.17)	1.00 (0.84)
Index for tangible resources (TANGIBLEINDEX)	0.01 (0.01)	0.02 ** (0.01)	- 0.80 ** (0.03)	- 0.01 (0.00)	0.02 (0.02)
Index for intangible resources (INTANGIBLEINDEX)	- 0.00 (0.01)	- 0.00 (0.01)	0.04 (0.03)	0.00 (0.01)	0.01 (0.02)
Resource seeking (dummy) (RESSEEKING)	- 2.10 ** (0.87)	- 2.07 (1.41)		1.54 * (0.90)	- 0.95 (2.36)
Index of local business conditions (INSTENVIRON1)	0.19 (0.36)	0.77 (0.87)	1.26 (1.09)	- 0.57 (0.39)	0.43 (1.16)
Index of local policy environment (INSTENVIRON2)	0.50 (0.35)	1.31 ** (0.67)	0.33 (0.94)	- 0.99 ** (0.41)	- 1.06 (0.81)
Index of local government attitude (INSTENVIRON3)	- 0.05 (0.29)	- 0.55 (0.48)	0.03 (0.86)	- 0.37 (0.36)	- 2.82 * (1.73)
In-country experience (dummy)	1.27 **	1.19	3.07 **	- 0.49	- 2.26

(INCOUNTRY)	(0.61)	(0.91)	(1.49)	(0.67)	(1.91)
Emerging market experience (EMERGINGMKT)	0.16 (0.81)	0.64 (1.60)	- 5.62 ** (2.89)	2.50 ** (1.18)	14.22 * (7.65)
Quality of local managers (MANAGERS)	0.80 *** (0.25)	1.38 *** (0.50)	0.41 (0.48)	0.52 ** (0.24)	1.28 (0.97)
Cultural distance (GEODIST)	0.00 (0.00)	0.00 (0.00)	- 0.00 (0.00)	- 0.00 (0.00)	- 0.00 (0.00)
Year of entry relative to 1990 (time trend) (YEAROFENTRY)	0.20 * (0.12)	0.33 * (0.18)	0.87 ** (0.45)	0.30 ** (0.14)	1.69 * (0.81)
Liberalisation of FDI regulations (FDILIBERAL)	- 0.27 (0.28)	- 0.26 (0.46)	0.54 (0.68)	- 3.17 ** (1.29)	- 7.09 * (3.90)
Liberalisation of local industry (INDUSTLIBERAL)	- 0.04 (2.71)	- 0.15 (0.41)	- 2.48 ** (1.16)	2.82 ** (1.28)	3.87 (2.72)
N	110	60	50	99	56
Log likelihood	- 58.89	- 27.12	- 14.93	- 42.07	- 14.47
Pseudo R-square	0.18	0.30	0.44	0.39	0.62

Note: The values within parentheses are standard errors.

\*, \*\* and \*\*\* indicate significance at 10%, 5% and 1% levels respectively.

**Table 4**  
**Determinants of Mode of Entry**  
**(South Africa and Egypt compared)**

	With vs. without local partner				Greenfield vs. Acquisitions		
	South Africa		Egypt		South Africa		Egypt
	Base	Manufacturing Interaction	Base	Manufacturing Interaction	Base	Manufacturing Interaction	Base
Constant	- 7.95 ** (3.97)		7.89 (6.54)		- 3.65 (5.64)		- 34.35 *** (11.48)
RNDPARENT	- 0.29 (0.26)	0.31 (0.34)	- 0.41 (0.33)	- 0.71 (0.94)	0.30 (0.23)	- 1.14 *** (0.42)	0.07 (0.32)
GDPPCPARENT	- 0.00 (0.00)	0.00 (0.00)	- 0.00 (0.00)	0.00 (0.00)			
LOCINDGROWTH	- 0.04 (0.04)	- 0.01 (0.06)	- 0.04 (0.04)	- 0.97 (0.66)	- 0.03 (0.04)	- 0.13 (0.09)	- 0.76 * (0.44)
LOCINDCOMP	- 0.54 (0.44)	- 0.05 (0.58)	- 0.72 (0.48)	- 0.12 (0.86)			
RELSIZE	- 0.24 (0.35)	- 0.43 (0.43)	0.24 (0.66)	0.81 (1.08)			
RESSEEKING	- 0.04 ** (0.02)		0.01 (0.01)				
TANGIBLEINDEX	0.02 (0.01)	0.06 *** (0.02)	0.01 (0.02)	- 0.13 * (0.08)			
INTANGIBLEINDEX	- 3.38 *** (1.32)	0.02 (0.01)	1.96 (1.98)	0.00 (0.05)	0.03 ** (0.01)	0.02 (0.02)	- 0.01 (0.01)
INVESTENVIRON1	1.31 * (0.81)	- 0.70 (1.05)	0.00 (1.29)	0.53 (2.25)			
INVESTENVIRON2	- 0.15 (0.82)	1.40 (1.06)	- 0.91 (0.77)	- 6.00 (5.00)			
INVESTENVIRON3	0.16 (0.75)	- 0.70 (0.91)	- 2.41 * (1.49)	4.00 (2.78)			
INCOUNTRY	2.11 * (1.19)	- 1.19 (1.45)	- 2.12 (1.67)	3.10	0.77	- 3.52 **	- 2.35 *



				(3.42)	(1.61)	(1.69)	(1.32)
EMERGINGMKT	- 1.37 (1.80)	1.88 (2.31)	7.74 * (4.69)	- 9.51 (6.62)			
MANAGERS	0.42 (0.40)	0.92 (0.59)	0.30 (0.69)	3.27 (2.68)			
GEODISTANCE	- 0.00 (0.00)	- 0.00 (0.00)	- 0.00 (0.00)	0.00 (0.00)			
YEAROFENTRY	0.88 ** (0.37)	- 0.58 (0.37)	1.18 ** (0.49)	- 0.03 (1.09)	0.08 (0.26)	- 0.31 (0.32)	1.67 *** (0.58)
FDILIBERAL	0.53 (0.59)	- 0.83 (0.75)	- 5.27 * (2.92)	3.64 ** (1.90)			
INDUSTLIBERAL	- 1.58 (0.73)	1.61 ** (0.82)	2.89 (2.48)				
DIVERSIFIED					- 0.07 (1.32)	- 1.40 (1.79)	1.87 (1.98)
PVTSECTSHARE					- 0.28 (0.47)	0.18 (1.21)	- 1.40 (1.02)
PRIVATISATION					0.34 (0.56)	0.65 (0.88)	1.43 ** (0.59)
FREQTAKEOVER					0.29 (0.60)	1.07 (0.93)	5.67 * (3.05)
LOCFIRMINDEX1					- 0.51 (0.69)	1.81 ** (0.80)	0.98 (1.46)
LOCFIRMINDEX2					1.12 (0.92)	- 2.75 ** (1.12)	1.20 (1.15)
PROFESSIONAL					- 0.67 (0.23)	2.42 ** (1.06)	2.75 *** (0.81)
N	110		99		75		57
Log likelihood	- 46.28		- 24.71		- 27.71		- 7.83
Pseudo R-square	0.32		0.63		0.46		0.53

Note: The values within parentheses are standard errors.

\*, \*\* and \*\*\* indicate significance at 10%, 5% and 1% levels respectively