Infrastructure or foreign direct investment?  
An examination of the implications of MNE strategy for economic development

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ABSTRACT

This paper explores the paradoxical relationship between MNE current strategies and economic development. There is evidence that positive developmental impacts of FDI flows are conditional on high levels of human capital and thus on the existence of 'good' infrastructure in recipient countries. In this paper we suggest that current MNE strategies have a negative impact on the development of infrastructure in LDCs. The justification for this argument arises from the low developmental impact of current FDI patterns and from rising costs of attracting increasingly footloose investment. The overall effect is to aggravate government financial constraints on the development of basic infrastructure. We develop propositions for future empirical research. We also consider implications for MNE strategy and argue that current MNE strategies are not only ineffective for delivering poverty reduction but that current strategies in developing countries do not necessarily serve the interest of MNEs either.

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1. Introduction

In recent years, several international business (IB) scholars have explored the issues around impact of MNE activities on economic development and poverty reduction. This is a significant development in the IB literature, and constitutes an extension of the domain of international business as a field of study. In the past, international business scholarship was not particularly concerned with the development issue, probably reflecting the notion that inquiries beyond the firm as unit of analysis are not in the domain of international business (Nehrt, Truitt, & Wright, 1970; Ricks, 1985). The more engaged stance of international business scholarship with the development issue (see e.g. Meyer, 2004; Ramamurti, 2004) is in part a reflection of the fact that the earlier optimism regarding FDI as 'an engine of development' (UNCTAD, 1992) has virtually evaporated and replaced with an arguably more realistic assessment. There is now a general realization that positive developmental impacts from FDI are not automatic. The realization of potential benefits from FDI is a challenging process at which relatively few countries have been successful (Dunning & Narula, 2004; Lall & Narula, 2004; Nunnenkamp, 2004; Nunnenkamp & Spatz, 2004; UNCTAD, 1999). The recent interest in poverty issues by a number of scholars can be seen in a broader context which is witnessing a more nuanced and critical evaluation of the development impact of MNEs in LDCs (Ghauri & Buckley, 2002, 2006; Ghauri & Cao, 2006; Kolk & van Tulder, 2006; London & Hart, 2004; O'Brien & Beamish, 2006; Yamin & Ghauri, 2004). The present paper seeks to add to this literature by focusing on the impact of current MNE strategies on the development of basic infrastructure in LDCs. The focus on infrastructure is.
highly apposite from a poverty reduction perspective (Datt & Ravallion, 1998; Fay, Leipziger, Wodon, & Yepes, 2005) and yet is neglected in the discussion of the MNE impacts on poverty reduction.

2. Research problem and motivation

There is a paradox in the relationship between MNE current strategies and economic development. On the one hand there is evidence that the positive developmental impact of FDI flows is strongly conditional on high levels of human capital and thus on the existence of ‘good’ infrastructure in recipient countries. Levels of human capital are a product of cumulative investment in basic infrastructure, such as health and education, over an extended period of time. On the other hand current MNE strategies have a negative impact on the development of infrastructure in LDCs. Specifically, MNE strategies are, inter alia, creating a pattern of FDI that has, except in a small number of ‘catching up’ countries (Dunning & Narula, 2004), a low developmental potential – aggravated by the rising costs of attracting increasingly footloose investment. This creates pressures on public revenue which, given that investment in basic infrastructure is largely dependent on public taxation and government revenue (Swaroop, 1994), translates into constraints on the development of infrastructure. In this paper we articulate this paradox more fully. This is a useful exercise for two reasons. First, it potentially enriches the emerging literature by enhancing understanding of the connection between MNE strategies and poverty reduction. Second, an important implication of the paradox we articulate is that current MNE strategies are not only failing in terms of poverty reduction but may not be in the best interest of MNEs themselves as they also benefit from the development of infrastructure in host countries, through, for example, better opportunities for subsidiary capability development.

The remainder of the paper is organized as follows. Section 3 provides an overview of changes in the strategy and structure of MNEs. A basic driver is that the relative decline is the imperative for national responsiveness on the one hand and the enhancement of the global integration imperative on the other. Section 4 focuses on the pattern of FDI flows to less-developed-countries (LDCs) associated with emerging MNE strategies. It highlights the low development potential (low domestic linkages and positive spillovers) of FDI. Section 5 discusses the methodology of our conceptual research, by providing an overview of the literatures linking infrastructure with, on the one hand, positive impact of FDI flows on economic development and, on the other, the positive effect of infrastructure on poverty reduction. Section 5.2 focuses on the reverse of the first relationship, namely, on the impact of MNE strategies on the development of infrastructure in LDCs. The key consideration is the rising cost of attracting FDI in terms of forgone expenditure on the development of infrastructure (public revenues and public administrative and related resources taken up in attracting FDI). Section 6 concludes the paper by considering implications for MNE strategies in LDCs.

3. Changing MNE strategies and structures

Traditionally IB scholarship assumed that the key strategic issue for the MNE was the handling of the tension between the imperative of global integration on the one hand and the need for national responsiveness on the other (Bartlett & Ghoshal, 1987). The need for national responsiveness, in part, reflected an environment in which national governments had significantly more bargaining power in their dealings with MNEs than they generally do nowadays. This dual imperative was reflected in the organization of the MNE. The seminal work of Ghoshal and Bartlett (1990) explained why multinationals would tend to be federative rather than unitary structures, although industry and other contingencies would also be influential in shaping the structure. In the federative structure, national subsidiaries (by which we mean a subsidiary whose focus is very much on the national environment and market of the host country) were an important part of the organization of MNE. Thus, Ghoshal and Bartlett (1990, p. 607) argued that one reason for the limit to the efficacy of headquarters fiat in MNEs was that (some) subsidiaries ‘control critical linkages with the host governments’. The basis for the power of national governments was of course control over access to the national economy and in particular to their markets. Multinational expansion frequently took the form of establishing ‘miniature replicas’, i.e. subsidiaries which performed several value chain activities in an integrated way and whose main function was to adopt or adapt the products and technologies of the MNE to the market and customer environment of the host countries. Over time however, miniature replicas could become more powerful; focus on the national economy would lead to significant degrees of ‘embeddedness’ in the national market, meaning that the subsidiary would become rooted in a network of business, technological and institutional actors in the host country (Ghauri; 1992; Phene & Almeida, 2003). In the words of Phene and Almeida (2003), subsidiaries grow ‘progressively closer to local host-country networks both in terms of sourcing and sharing knowledge’ (Phene & Almeida, 2003, p. 363). It has also been found that subsidiary embeddedness in local business and technology networks is an important source of subsidiary strategic capabilities (Andersson, Forsgren, & Holm, 2002). From the perspective of economic development, this ‘old model’ of MNE expansion had a positive quality – compared to what has replaced it – in potentially encouraging linkages in the domestic economy and the development of industrialization, although in practice the models’ implementation was often mired in excessively protectionist policies. Moreover the smaller markets and lower purchasing power of many LDCs constrained the scope for subsidiary development and linkage formation. However, the experience of MNE assisted import substitution is not wholly negative (Hirschman, 1968).
Globalization has reduced the need for national responsiveness. MNE strategies are shifting towards greater global (or at least regional) integration1 and their investment decisions are increasingly motivated by efficiency and strategic asset seeking. The MNEs’ emerging strategies are underpinned, on the one hand, by their increasingly knowledge-based, intangible and hence mobile core assets and capabilities and, on the other hand, by lower and falling barriers to cross-border operations. This gives MNEs more locational choices, particularly with respect to production and operational activities. MNE strategies revolve around the disintegration of the value chain (Birkinshaw, 2001; Buckley & Ghauri, 2004) reflecting an increasing ability ‘to segment their activities and to seek the optimal location’ for narrowly specialized activities (Buckley & Ghauri, 2004, p. 83). Dunning (2002), Dunning and Narula (2004) and Narula and Dunning (2000) provide a similar analysis of how growing liberalization of markets and greater mobility of firm-specific assets are key influences on MNE strategies. The pattern of FDI flows is influenced by the fact that, increasingly, host countries fit into the strategic calculation of MNEs as sites for key resources or capabilities rather than markets. This does not mean that MNEs are not interested in markets but that, due to falling trade barriers, market access is not usually a major issue. Most host markets are open and need not be ‘sought’ although there will be greater competitive pressures at work affecting specific individual markets, particularly in the larger and the more rapidly growing markets (e.g., China or India). Markets for some services are still more subject to restrictive regulation but even here there is pressure towards greater liberalization (UNCTAD, 2004). Another factor influencing the pattern of FDI flows is that MNEs are also investing in alliance formation and collaborative arrangements, particularly in relation to sourcing strategic and knowledge based assets from outside of the MNE’s home country.

All of this has led to a reduction in the importance of nationally focused subsidiaries. Birkinshaw (2001) in fact has observed that the national subsidiary is an ‘endangered species’. They have typically experienced a significant reduction in the value chain scope and a shift towards greater operational integration into the MNE and less integration in the host economies where they are located. Despite this general trend, the potential impact of the MNEs’ new globalizing strategies is likely to be systematically different between developed countries and LDCs. The demise of the national subsidiary has not necessarily meant that subsidiaries have become totally powerless organizations. They have lost control over market positioning (that is where and who they sell to) as their focus is no longer typically the local market. They retain, however, the potential to develop resources and capabilities which are valuable in meeting demands of the MNE customers. These are increasingly defined on global or regional rather than individual country basis. There is ample evidence that subsidiaries in developed countries can become major players in the MNE through developing ‘global mandates’ or becoming ‘centers of excellence’ (Andersson & Forsgren, 2000; Birkinshaw, 1996). The narrowing of the value chain scope of subsidiaries does not necessarily imply a withering of subsidiary capabilities – in fact they can become capable specialists with a global or regional reach. It all seems to depend on the subsidiary’s ability to develop its internal capabilities often in the process of interacting with external counterparts in its local environment (Andersson & Forsgren, 2000; Birkinshaw & Ridderstrale, 1999). However, the situation seems to be radically different in most LDCs.

4. FDI flows to LDCs: low development potential

Most developing countries, due to their small population and low per capita income, are unlikely to attract much market seeking FDI. Market seeking investment in LDCs is, at any rate, mostly focused on the higher end of the income distribution, incorporating product offerings and marketing policies that mostly bypass the majority of potential (but poor) consumers. This may be more a consequence of a weakness of MNE strategies in the LDCs rather than an inherent difficulty in reaching the poor (Dawar & Chattopadhyay, 2002; London & Hart, 2004). We shall return to this point in the concluding section of the paper.

In general, LDCs are overwhelmingly attracting ‘asset-exploiting’ investment,2 comprising of the transfer of relatively low technology and low value activities to be combined with the main location bound advantages of these countries – mostly cheap and unskilled labor. There are of course rare exceptions in this regard. India’s ability to attract FDI and other types of MNE investment in its software sector is largely due to its plentiful supply of educated labor with highly specialized relevant skills. The dominant trend is LDCs’s participation in MNE controlled production networks. LDCs usually enter these networks as sites for the production of highly specified and narrow range of low value-adding activities (‘slivers of specialized activity’, Buckley & Ghauri, 2004). This is a main reason for the rapid expansion of trade in manufacturing and also helps to explain why manufacturing trade expansion has not produced the expected gains for LDCs (UNCTAD, 2002).

The distinctive contribution of FDI to economic development revolves around its potential to generate positive spillovers. This is the ‘external economy’ associated with

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1 The debate over global versus regional MNEs (see e.g. Aharoni, 2006; Rugman, 2005) is not particularly germane to our focus. The key issue is that MNE strategies are now seeking a higher level of firm level integration and a more ‘optimal’ mapping between activities and locations. In fact the debate arises because there is a general consensus that MNEs have moved away from the more federative – or ‘multi-domestic’ structures that were prominent in much of the post war period (Yamin & Forsgren, 2006).

2 Asset-exploiting FDI takes place when the company’s primary purpose is to generate economic rents through the use of firms existing technological and organizational assets and capabilities. Asset-augmenting FDI is motivated to gain new technological and other strategic assets and is mainly attracted to a relatively small number of regional clusters within the OECD countries, as these locations provide ample supply of the required complementary resources such as high level specialized skills, sophisticated infrastructure and advanced research centers and universities (Dunning & Narula, 2004).
FDI. FDI can generate benefits that are not fully captured by the MNE undertaking the investment. In theory, LDC firms gain productivity and knowledge advantages that they do not pay for in full (Zanfei, 2005). The mechanisms through which spillover can occur have been discussed at length in the literature (see e.g. Oetzel & Doh, this issue) and include learning by and knowledge transfer to domestic firms and enhanced productivity through greater competition induced by the entry of the MNE. The interest in the extent and depth of MNE linkages in the host economy reflects an expectation of the enhanced possibility of knowledge and productivity benefits accruing to the MNEs’ local partners at a lower cost than would otherwise be the case. This outcome is not automatic. The literature suggests only a positive correlation rather than a definite cause and effect relationship between linkages and spillovers. Generally, the greater the degree of an MNEs’ resource commitment to the host economy, through linkages and sourcing of intermediate inputs (Rodriguez-Clare, 1996), the greater the degree of positive spillovers are likely to occur in LDCs.

Few studies have examined the MNE affiliates in LDCs or the pattern of their linkages in host countries (UNCTAD, 2001). Aggregate data on FDI flows provide clear indications that, although there has been a very large influx by MNEs into LDCs, these have typically resulted in extremely ‘shallow’ levels and types of investment in these countries with low or absent potential for positive spillovers. In other words in most LDCs, FDI is associated with a low level of resource commitment to the economy. Thus, there is a sharp disparity between the share of LDCs in inward FDI stocks/flows on the one hand and their share of the number foreign affiliates on the other hand. According to the World Investment Report, while in the year 2000, 51.5% of all MNE affiliates were located in LDCs, they accounted only for 24% of FDI inflows. The developed countries by comparison accounted for 14% of all affiliates but 73% of FDI inflows (UNCTAD, 2001). Some disparity would of course be expected, as investment in less developed countries may be more labor intensive and absorb lower amounts of FDI. However the magnitude of the disparity is also due to a change in the structure of MNE activity in many LDCs away from a focus on local markets and towards their incorporation in the rationalized production networks that they control.

Studies focusing on individual LDCs conform to these conclusions. A study by Edwards, Ahmad, and Moss (2002) on MNE subsidiaries in Malaysia shows that subsidiary autonomy is generally very limited even for MNEs that are ostensibly decentralized. The authors note that Malaysian subsidiaries are highly integrated in the MNEs of which they are a part of but have low integration in the Malaysian economy. Mirza and Giroud (2004), focusing on Vietnam, also find low integration of foreign subsidiaries in the country but high levels of integration in MNE supply chains. An indication of cost sensitivity and the associated ‘foot-loose’ character of MNE operations in emerging countries is the rate of divestment. A study by Belderbos, Cappannelli, and Fukao (2001) focusing on East Asia indicated an average divestment rate of 3% by Japanese electronic MNEs. They found that divestments are much more frequent in higher labor cost countries and in approximately one-third of cases are accompanied by relocations to lower wage countries, particularly to China. Studies focusing on linkages have generally observed low degrees of linkages and have suggested that indigenous local firms (as distinct from foreign owned suppliers located in the economy) are usually second or third rather than first tier suppliers vis-a-vis MNEs (Belderbos et al., 2001; Kelegama & Foley, 1999; Mirza & Giroud, 2004; Sanchez-Ancochea, 2006; UNCTAD, 2001). Luo’s (2004) study of the determinants of resource commitments in emerging economies provides a rationale for the low degrees of subsidiary linkages. Linkage formation entails a greater degree of commitment of resources to long-term business relationship in the host country and, as Luo’s study clearly shows, resource commitment is lower when MNE strategies stress cost rather than demand side gains (Luo, 2004). Kokko, Zejan, and Tansini (2001) study, focusing on Uruguay, points to a similar conclusion.

We believe that, there exists a consensus relating to the low development potential of FDI patterns in LDCs replacing the earlier optimism regarding FDI as ‘an engine of development’ (UNCTAD, 1992) with an arguably more realistic assessment. We endeavor to enrich this assessment by focusing on how the currently dominant strategy MNEs vis-a-vis the LDCs may have negative consequences for the development of infrastructure in these countries and thus aggravate the obstacles to poverty eradication.

5. Analytic procedure – tabulation of literature

The analytical procedure in this paper is conceptual in nature. It involves the tabulation of key literatures on the relationship between infrastructure, FDI inflows and economic development on the one side and the poverty and infrastructure relationship on the other. We performed a systematic literature search of material published over the last decade using the ABI/Inform and EBSCO databases. The following subsections discuss details of the procedure; results are produced in tabular format.

5.1. Infrastructure, FDI inflows and economic development

The literature on the relationship between infrastructure in recipient countries and FDI has only examined one side of the ‘coin’. There is a large literature demonstrating that the benefits of foreign direct investment is strongly contingent on the existence of appropriate infrastructure in the recipient countries and that in many LDCs the absence of such infrastructure detracts from or negates the potential positive effect on productivity and income growth. Over the last decade many studies have been undertaken to examine the effects of globalization on economic development of host countries. The systematic literature search on ABI/Inform and EBSCO databases included the following keywords, “foreign direct investment”, ‘multinational enterprises’ and “infrastructure” and

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3 Keywords such as ‘multinational company’ or ‘transnational company’ instead of ‘multinational enterprise’ did not yield any other studies than those already identified.
“human capital”, “globalization” and combinations thereof. The basic rationale was to understand how FDI-flows may improve economic growth and development in recipient countries. Results were further refined by visiting specific journal issue websites for those journals which were identified in the first stage. Overall we identified about 17 papers which demonstrated a dependence of the benefits of FDI on human capital in the recipient countries. Specifically, the literature strongly suggests that the impact of FDI on economic productivity growth is much stronger in developed economies than in less developed economies. This is explained by the existence of adequate and appropriate infrastructure in the former recipient countries. For example the study by Xu (2000) shows that a country needs to reach a minimum human capital threshold level in order to benefit from the technology transfer of MNEs. He further observes that most LDCs do not benefit from FDI flows because they fail to meet this threshold requirement. This relationship is also maintained within the developing countries as a group. One particularly interesting study (Alsan, Bloom, & Canning, 2006) shows a strongly positive relationship between population health (an important dimension of human capital) and inflows of FDI in low and middle income countries; the authors’ estimate suggest that raising life expectancy by one year increases FDI flows by 9% after controlling for other relevant variables. The overall finding from the literature is that only a small numbers of emerging economies (labeled by Dunning and Narula as ‘catching-up’ countries) have effectively benefited from FDI flows as they possess relatively high levels of human capital and related infrastructure (Dunning & Narula, 2004; Narula & Dunning, 2000). Table 1 provides greater detail regarding this relationship.

‘Good’ infrastructure is a hallmark of economic development. The development economics literature has established, very robustly, that access to basic infrastructure is fundamental to poverty reduction. As of today, however, the IB literature has not been particularly concerned with this link, which can probably be seen as a function of the fact that the engagement of IB scholarship with economic development is only of recent origin and is not yet very extensive. In an attempt to bridge this gap and facilitate discussion within international business, we therefore focus on the importance of access to infrastructure to the well-being of the poor; the vast majority of the population in LDCs. Table 2 summarizes 16 published studies that establish the link between access to basic infrastructure and poverty reduction. For this particular literature search, keywords comprised “poverty”, “infrastructure”, “less developed countries” and combinations thereof.

A general feature of the economic development literature on infrastructure is that poverty reduction requires policy intervention targeted on the development specific infrastructure such as health and education. It is relevant that the millennium development goals (United Nations Development Programme, 2006) identify specific targets in such areas as health and education raising the question that since gains in per capita income are highly correlated with most development indicators why bother with specific targets in these areas (Fay et al., 2005). The answer lies partly in the fact that there are quite wide disparities in basic indicators (e.g. child mortality) within income groups. Attacking poverty may thus require direct intervention. As argued by Fay et al. (2005), such intervention needs to be multi- rather than uni-directional. For example, improvement in child mortality not only depends on ‘health’ interventions (e.g., building and staffing rural health clinics) but also on access to clean water and perhaps even more crucially on gender equality and educational attainment of maternal parents (Kolk & van Tulder, 2006). Thus, poverty reduction is more effectively delivered where there is access to multiple basic infrastructures in such areas as health, sanitation, education and transport.

Combining the research insights from Tables 1 and 2, we come to the following conclusion: ‘Good’ infrastructures in recipient countries are necessary for the realization of FDI benefits (Table 1). Furthermore, access to basic infrastructure is fundamental to poverty reduction (Table 2). Previous research has ignored the question how MNE strategies and the consequent pattern of FDI may affect the levels of infrastructure, especially of ‘basic’ infrastructure in such areas as education and health. We do know that while MNEs ‘consume’ infrastructure, they are not major investors in infrastructure. However, we still need to know how they may affect investment in basic infrastructure indirectly. The rest of the paper is devoted to this question and its implications for MNE strategy in the LDCs.

5.2. Implications infrastructure development in LDCs

This section highlights the implication of MNE strategies with respect to the development of infrastructure in LDCs. Implications for infrastructure are an important aspect of evaluating the developmental impact FDI, since, as we have already noted, investment on infrastructure is highly dependent on public funds. MNEs strategies in LDCs affect the latter in two ways.

5.2.1. Reduced spillover and linkage effect

First as the discussion of the literature in Section 4 has already indicated, a consequence of the current MNE strategies is that the ‘quality’ of FDI flows to LDCs has declined. The prospect that efficiency seeking FDI may promote economic growth is rather discouraging. The reduced spillover and linkage effects associated with the dominant pattern of FDI in LDCs imply a low value added multiplier (Bende-Nabende & Ford, 1998; Mirza & Giroud, 1998).

4 There was an upsurge in infrastructure FDI in developing countries in the early 1990s, overwhelmingly in the form of the acquisition of privatization assets in public utilities (largely water and power). As Ramamurti and Doh (2004) have argued this reflected specific conditions, notably a perception on the part of MNEs that infrastructure projects were losing their ‘natural monopoly’ characteristics and that first movers could benefit handsomely from the globalization of this sector (p. 151). However these expectations were subsequently disappointed and consequently (after 1997) infra-structural FDI in developing countries declined to its historically low levels (Ramamurti, 2004).
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<tr>
<td>Alsan et al. (2006)</td>
<td>Cross-country comparison, panel data, 74 industrialized and developing countries</td>
<td>Gross inflows of FDI positively influenced by population health in low- and middle-income countries</td>
<td>Health an integral component of human capital in developing countries. Health significantly enhances FDI benefits.</td>
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<td>Bende-Nabende and Ford (1998)</td>
<td>Taiwan as a relatively advanced emerging economy</td>
<td>FDI promotes growth</td>
<td>Growth is highly sensitive to infrastructure improvements. Effect of FDI on economic growth is dependent on the level of human capital available in the host economy.</td>
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<td>Borensztein, De Gregorio, Elmawazini, Saadi, Globerman and Kosack and Tobin (2005)</td>
<td>FDI flows from industrial countries to 69 developing countries over the last two decades</td>
<td>FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. However, the higher productivity of FDI holds only when the host country has a minimum threshold stock of human capital.</td>
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<tr>
<td>Elmawazini, Saadi, and Ngouhouo (2005)</td>
<td>Conceptual approach, building on literature relying on firm-level data and industry-level data, mostly single-country studies</td>
<td>Recent empirical models indicate that the impacts of FDI on productivity growth in developed countries are generally not significant, and are less than in the developed countries.</td>
<td>The weakness of technological capabilities of local firms and human capital level are key challenges for developing countries to benefit from foreign direct investment inflows.</td>
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<tr>
<td>Globerman and Shapiro (2002)</td>
<td>Governance infrastructure comprises public institutions and policies created by governments as a framework for economic and social relations. Index data is used from BERI, DRI, HDI, etc.</td>
<td>Governance infrastructure is an important determinant of both FDI inflows and outflows</td>
<td>Investments in governance infrastructure not only attract capital, but also create the conditions under which domestic multinational corporations emerge and invest abroad.</td>
</tr>
<tr>
<td>Kosack and Tobin (2006)</td>
<td>Unbalanced panel of 103 countries—both developed and developing—from 1970 to 1999. Model variables: Aid, FDI, Level of democracy, and co-variates</td>
<td>Aid and FDI affect development differently. Aid contributes to both economic growth and human development. FDI has no effect on economic growth and actually slows the rate of human development in less-developed countries.</td>
<td>No evidence that the degree of democratic responsiveness in government conditions the effectiveness of either aid or FDI, although we do find that democracy independently increases human development in all but the most developed countries. Poor countries need democracy and aid, not FDI.</td>
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<tr>
<td>Kottaridi (2005)</td>
<td>Examines the link between Foreign Direct Investment (FDI) and growth of recipient EU economies for the last two decades</td>
<td>FDI, human capital and trade volume are found to be growth-enhancing factors for a group of EU core countries, this not being the case for peripheral economies on the contrary, domestic investment and employment levels are found to be fuelling growth in the peripheral economies; (3) macroeconomic conditions (here measured by growth persistence and interest rates) are found to be significant growth factors for all economies</td>
<td>Bi-polar EU, higher value-added activities are concentrated in core countries. To enable peripheral economies to attract and maintain FDI, governance conditions should be changed, e.g. by enlarging their human capital basis.</td>
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<tr>
<td>Li and Liu (2005)</td>
<td>Investigation of whether FDI affects economic growth, based on panel data for 84 countries over the period 1970–1999</td>
<td>Significant endogenous relationship between FDI and economic growth is identified from the mid-1980s onwards. FDI not only directly promotes economic growth by itself but also indirectly does so via its interaction terms.</td>
<td>Interaction of FDI with human capital exerts a strong positive effect on economic growth in developing countries, while that of FDI with the technology gap has a significant negative impact.</td>
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<td>Mencinger (2003)</td>
<td>Examination of the impact of FDI on economic growth. Sample of Eastern European EU accession candidates, in post-transition period</td>
<td>FDI growth enhancing effect contingent on domestic firm absorptive capacity</td>
<td>Actual size of productivity spillovers from FDI should not be overrated. Absorptive capacity is a correlate of human capital.</td>
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Table 1 (Continued)

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<td>Noorbakhsh, Paloni, and Yousef (2001)</td>
<td>FDI inflow has largely been restricted to a limited number of countries only. LDCs might enhance their location attractiveness with appropriate policies. Uses panel data based on three-year averages, FDI, human capital and control variables.</td>
<td>Human capital is a statistically significant determinant of FDI inflows; it is one of the most important determinants; and its importance has become increasingly greater through time.</td>
<td>The level of human capital in host countries affects the geographical distribution of FDI. LDCs can increase their attractiveness for FDI by investing in human capital.</td>
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<td>Nunnenkamp and Spatz (2004)</td>
<td>Empirical studies on FDI and economic development demonstrate inconclusive evidence because of aggravated data used. Use sectorally disaggregated FDI data for large number of host economies. Data from Bureau of Economic Analysis.</td>
<td>Positive growth effects of foreign direct investment are not guaranteed automatically.</td>
<td>Link between FDI and economic growth varies according to country classifications based on human capital.</td>
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<td>Nunnenkamp (2004)</td>
<td>For FDI to help alleviate poverty and stimulate economic growth in LDCs, these countries need to be attractive to investors. Also, the host-country environment in which foreign investors operate must be conducive to favorable FDI effects.</td>
<td>In particular, the empirical evidence suggests that host-country conditions typically prevailing in poor countries, including weak institutions and an insufficient endowment of complementary factors of production, constrain the growth-enhancing and poverty-alleviating effects of FDI. The crux is that creating an environment in which FDI may deliver social returns will take considerable time exactly where development needs are most pressing.</td>
<td>It is more difficult to benefit from FDI than to attract FDI. The mobilization of domestic resources is more important than attracting FDI for financing investment and stimulating economic growth. High inward FDI is no guarantee for poverty alleviation and positive growth effects.</td>
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<td>Todo and Miyamoto (2006)</td>
<td>Examines whether there are differences in spillover effects between R&amp;D-performing and non-R&amp;D-performing foreign firms using plant-level panel data for the Indonesian manufacturing sector for the period 1994–1997.</td>
<td>Results indicate that the effect of R&amp;D performing foreign firms on domestic TFP growth is positive, statistically significant, and quantitatively large, whereas the effect of non-R&amp;D-performing foreign firms is insignificant. Hence, foreign knowledge spills over from R&amp;D-performing foreign firms but not from non-R&amp;D-performing foreign firms.</td>
<td>Although FDI has been considered a major channel of technology transfer to less developed countries, FDI promotion has significant spillover effects only when FDI is associated with local R&amp;D activities. Hence, to benefit from FDI, more local R&amp;D is necessary.</td>
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<td>Xu (2000)</td>
<td>Investigates US multinational enterprises MNEs as a channel of international technology diffusion in 40 countries from 1966 to 1994.</td>
<td>Technology transfer provided by US MNEs contributes to the productivity growth in DCs but not in LDCs.</td>
<td>Countries need to reach a minimum human capital threshold level in order to benefit from the technology transfer of US MNEs.</td>
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<tr>
<td>Zhang (2001)</td>
<td>Empirical assessment on the link between FDI and economic growth in LDCs, using data for 11 economies in East Asia and Latin America.</td>
<td>The extent to which FDI is growth-enhancing appears to depend on country-specific characteristics. FDI tends to be more likely to promote economic growth when host countries adopt liberalized trade regimes, improve education and thereby human capital conditions, encourage export-oriented FDI and maintain macroeconomic stability.</td>
<td>Institutional and political governance factors determine the benefit which can be accrued from FDI.</td>
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2004) in the economy and ceteris paribus a reduced ability to increase public revenue through taxation.

A second effect which we have not yet considered, relates to the rising cost of attracting FDI. This will be discussed in the following sub-section.

5.2.2. Attracting FDI: rising costs and administrative ‘crowding out’

MNE strategies and the consequent general pattern of FDI flows generate competition between countries to attract footloose FDI which bids up the ‘price’ that MNEs can extract for locating activities in a particular country or region within the country. The price is further bid up if LDCs have to compete with (the poorer regions of) developed economies whose governments have much greater resources to subsidies incoming FDI (Dunning & Narula, 2004, p. 30). An important manifestation of this is the increase in the incentive elasticity of FDI flows (Esson, 2001; Mutti & Grubert, 2004; Taylor, 2000; UNCTAD, 2003). In their review of the empirical literature on the link between FDI and taxation, de Mooij and Ederveen (2003) report a median tax elasticity (across 23 studies) of −3.3 (i.e. a 1%-point reduction in the host-country tax rate raises foreign direct investment in that country by 3.3%). Easson observes that while MNE executives used to downplay the role of
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<th>Poverty and Infrastructure relationship</th>
<th>Context</th>
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<tr>
<td>Abu-Ghaida and Klasen (2004)</td>
<td>As growing empirical literature suggests that gender equity in education promotes economic growth, reduced fertility, child mortality, and under nutrition. Millennium development goals therefore set target is the achievement of gender equity in primary and secondary education by the year 2005 in every country of the world.</td>
<td>Countries that are off track MDG achievement, are likely to suffer lower per capita growth rates, will have more children per woman, higher rates of under five mortality, and higher prevalence of underweight children under five</td>
<td>MDGs cannot be seen as narrow objectives with uni-dimensional interventions. Promotion of equity in education requires investment in education but at the same time other infrastructure investments (e.g. transport, water, health)</td>
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<td>Adato, Carter, and May (2006)</td>
<td>Explores The lack of social capital and social mobility, which will act as building blocks, for slow pace of development in South Africa.</td>
<td>A dynamic asset poverty threshold is identified that signals that large numbers of South Africans are trapped at a low-level poverty trap without a pathway out. Active social capital and networks are more helpful for non-poor households. For the poor, social capital at best helps stabilize livelihoods at low levels and does little to promote upward mobility.</td>
<td>Elimination of the polarized economic legacy in South Africa requires proactive efforts to assure that households have access to a minimum bundle of assets.</td>
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<td>Agenor, Bayraktar, Moreira, and El Aynasou (2006)</td>
<td>Assesses a macro model which captures key linkages between foreign aid, public investment (disaggregated into education, infrastructure and health), the supply side and poverty in Sub-Saharan Africa. Key MDG indicators (malnutrition, infant mortality, life expectancy) are correlated.</td>
<td>Discusses model outcomes. (A) Effects of an increase in foreign aid on the MDGs, under the assumption that public investment is relatively efficient. (B) Same policy experiment in the alternative case where public investment is less efficient.</td>
<td>Model provides strategy implications for decision makers in terms of the level and area of foreign aid and their implications on the MDG.</td>
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<td>Ahmad, Gorman, and Werhane (2004)</td>
<td>Case study from the 1970s, describing marketing activities of Hindustan-Lever in India and a then unknown entrepreneur Nirma. Lever focused on urban middle-class and elite while ventured to become the second largest seller in terms of volume by focusing on the poor</td>
<td>Bottom-of-pyramid (BOP) market segmentation can have a psychological impact on marketing strategy formulation, over and above the real effects of absent infrastructures.</td>
<td>Mental sets regarding market segmentation and positioning can help determine success. BOP can be a base-camp from which an MNC can launch a very effective attack upon all levels of the pyramid.</td>
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<tr>
<td>Boadi, Kuitunen, Raheem, and Hanninen (2005)</td>
<td>In Africa, high population growth and inadequate infrastructure coincide in urban areas with increasing urbanization. This pressures the health and well-being of urban residents</td>
<td>Urbanization has eroded the subsistence base of rural agricultural communities and further ignited rural urban migration. The failure of industry to absorb the increasing labor force has created massive unemployment and deepening poverty crisis in urban centers.</td>
<td>Poverty alleviation implies infrastructure investments, creating job opportunities, enhancing education and training, International development aid, and democratization.</td>
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<td>Fay et al. (2005)</td>
<td>Analysis of the determinants of three child-health outcomes related to the Millennium Development Goals: the infant mortality rate, the child mortality rate, and the prevalence of malnutrition. Data from Demographic and Health Surveys.</td>
<td>Apart from traditional variables (income, assets, education, and direct health interventions), better access to basic infrastructure services has an important role to play in improving child-health outcomes.</td>
<td>Investments in infrastructure service improve child-health related MDG.</td>
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<tr>
<td>Fedderke, Perkins, and Luiz (2006)</td>
<td>Examination of the relationship between investment in economic infrastructure and long-run economic growth in South Africa, time-series context.</td>
<td>Investment in infrastructure leads economic growth in South Africa and does so both directly and indirectly. There is weak evidence of feedback from output to infrastructure; while the finding of an infrastructure growth impact is robust.</td>
<td>Productive public expenditure (such as roads, transportation, and housing) can play an important role in promoting economic growth and encouraging private investment.</td>
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incentives, they now readily acknowledge their increasing importance for investment decisions (Easson, 2001, p. 272). The World Investment Report (UNCTAD, 2003, p. 125) puts recent findings in perspective, noting that locational incentives have become more important as the mobility of firms has increased. Econometric studies that previously found incentives ineffective, now find that they have become more significant determinants of FDI flows. The study by Mutti and Grubert (2004) puts emphasis on the variability of (tax) incentive sensitivity across different activities and countries: “empirical estimates indicated that investment geared towards export markets, rather than the domestic market, is particularly sensitive to host-country taxation, that this sensitivity appears to be greater in developing countries than developed countries, and that it is becoming greater over time” (Mutti & Grubert, 2004, p. 337, emphasis added). MNEs’ increasing sensitivity to incentives is itself in part a function of unregulated and uncoordinated competition between countries. As incentives become ever more generous, their weight in the investment calculation of MNEs inevitably increases. As Easson has noted, decisions that would not have been influenced by a ‘mere’ two year tax holiday may well be swayed by a 10 year holiday (Easson, 2001, p. 372).

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<td><strong>Context</strong></td>
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<td><strong>Poverty and Infrastructure relationship</strong></td>
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<td>Fukuda-Parr (2004)</td>
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<td>Gibson and Rozelle (2003)</td>
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<td>Krishna, Kapila, Porwal, and Singh (2005)</td>
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<td>Levesque, Haddad, Narayana, and Fournier (2006)</td>
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<td>Mirza and Giroud (2004)</td>
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<td>Ruben and Clercx (2003)</td>
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Clearly tax incentives aimed at attracting FDI only become ‘costs’ if a country is successful in attracting FDI. Nevertheless there are other costs involved in competing for incoming FDI which are incurred irrespective of whether a country is successful in actually attracting FDI. Many LDCs have created national and regional investment agencies to promote the country or region to foreign investors. A key aim of such agencies is to help improve the investment climate by reducing bureaucratic and administrative costs for investors. Because MNEs can choose amongst different locations and compare transaction and administrative costs across countries, ‘attracting them requires not just that transaction costs be lowered, but also, increasingly, that they be benchmarked against those of competing host countries’ (UNCTAD, 1999). One measure that many LDCs have adopted to ensure that international investors face minimal costs is to set up one-stop promotion agencies to guide and assist them in getting necessary approvals (UNCTAD, 1999). As the UNCTAD report notes, unless the agencies have the authority needed to provide truly one-stop services, they will not be effective. The authority exercised by such an agency is partly a political issue but it does require having competent administrative leadership and operational manpower. The case study of the development of the ‘one-stop-shop’ investment promotion agency in Egypt suggests that it only became successful after managing to attract a number of highly qualified and experienced administrators to occupy leading positions in the agency (MIGA, 2004). Earlier failure of the agency was partly explained in terms of its staff lacking the ‘knowledge, competency, training and authority to grant approvals or licenses, and so were not able to help investors.

Attracting MNE through high-powered one-stop-shop probably can entail a degree of administrative ‘crowding out’ in many developing countries, depriving other public policy priorities not only of funding but also of adequate administrative support. This is all the more concerning when we take account of the fact that LDCs typically suffer from a generally low level of (public) administrative resources. The absence of skilled and competent state bureaucracy has been held to be an obstacle to economic development and a key difference between the small group of Asian ‘tigers’ and many other less successful developing countries (World Bank, 1993). In its influential 2001 Report on ‘Attacking Poverty’ (World Bank, 2001) bemoaned the low quality of state apparatus and its lack of responsiveness to the poor, in particular. The report puts stress mostly on the institutional aspect of poor public service to the poor; such as the high level of corruption and the arbitrary and non-transparent decision making of state bodies. However it is clear that the development of physical infrastructure may be similarly constrained by inadequate state funding and low organizational capabilities of the state bureaucracy. Thus we put forward the following proposition:

P1. Attracting FDI diverts resources from public investment in infrastructure and thus constrains basic infrastructure development.

Furthermore as most FDI is probably attracted to the already better off regions of the country, there will be a greater effort to improve infrastructure in these areas, depriving the poorer regions and the rural areas in particular. In China, for example, only 27% of the rural population had access to sanitation 2000, while in India only 15% of the rural population had access to sanitation (Asian Development Bank, 2003). Thus, the opportunity cost of attracting FDI in terms of constraints on public infrastructure is likely to be even greater for the poorer rural areas in LDCs:

P2. The negative impact of attracting FDI on infrastructure development is greater in the rural areas and poorer regions in LDCs more generally.

Finally we note that the impact of attracting FDI is likely to be greater in the large group of non-‘catching up’ economies. China and India are leading members of the ‘catching up’ group of emerging economies which have not only attracted large amount of FDI but have also managed to benefit from it. In this group of economies the likelihood that FDI flows may contribute to economic growth is somewhat greater (Zhang, 2001, 2006) and thus the constraint on infrastructure development is eased. In most other LDCs, it has been much easier to attract FDI than to benefit from it, mostly due to absent or low level of complementary human capital and absorptive capacity (Nunnenkamp, 2004). A focus on the implications of MNE strategies for LDC infrastructure is particularly justified for the larger group of non-catching up counties.

P3. The negative impact of attracting FDI on infrastructure is greater in countries with low levels of human capital.

6 Conclusions and implications for MNE strategies in LDCs

Our arguments regarding the impact of MNE strategies on LDCs can be summarized in the following Fig. 1. As the figure shows, we consider that impacts on infrastructure development are generated from the interaction between MNE strategies and host-country characteristics in terms of existing infrastructure. However, both MNE strategies and LDCs are affected by fundamental environmental changes that can rather roughly be described as ‘globalization’ (Dunning & Naraula, 2004). The key dynamics of globalization include liberalization relating to trade and investment regulation, and technological advance, particularly in information and communication (ICT) technol-

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5 However, it is possible that in anticipation of a take-up of tax incentives by MNEs, the government may reduce planned expenditures in other areas. This effect can become cumulatively important if the tax incentive schemes persist over a number of years.

6 We note that a number of studies have recently examined the impact of globalization on economic development, inequality and poverty in LDCs (Aggarwal, 2006; Bardhan, 2006; Basu, 2006; Harrison & McMillan, 2007; Huq & Tribe, 2004; Ligon, 2006) However these studies do not adopt a specifically IB focus or highlight changing MNE strategies as a major plank of their analysis. Thus they do not specifically inform the question of the effect on FDI flows on poverty. In our study we have adopted a specifically IB perspective.
ogies enabling, inter alia, production modularization and geographical flexibility. In our paper these forces have not been in the forefront of the analysis; we have concentrated on the effects of MNE strategies on infrastructure (see also footnote 6). However, as indicated in Fig. 1, MNE-related effects constraining the development of infrastructure can be magnified, as LDCs also face pressures emanating from the globalization dynamics which effectively reduce the policy 'space' available to their governments (UNCTAD, 2004).

Wade (2003, p. 622) has argued trade and investment liberalization measures (such as TRIMS and GATS) have resulted ‘in the ‘development space’ for diversification and upgrading policies in developing countries being shrunk behind the rhetorical commitment to universal liberalization and privatization. The rules being written into multilateral and bilateral agreements actively prevent developing countries from pursuing the kinds of industrial and technology policies adopted by the newly developed countries of East Asia, and by the older developed countries when they were developing, policies aimed at accelerating the ‘internal’ articulation of the economy’. Similarly fiscal ‘conservatism’ and the demands for macroeconomic stability imply a reduction in the scope for public expenditure (Islam, 2005; Ocampo, 2002). The MNE-related constraints on infrastructural development in a particular country is shaped by its macro context in terms of its ability to adapt to globalization pressures. We have not brought this into the forefront of our discussion as we believe that such country capabilities are themselves influenced by the level of infrastructure development.

In our study, we have endeavored to explore how FDI flows may have negative effects on public investment on basic infrastructure. Our paper essentially attempts to examine the opportunity costs of FDI in terms of the forgone resources that are not devoted to basic infrastructure. More specifically we have argued that shifts in MNE strategy have two related consequences: weaker spillover and linkage effects and greater incentive elasticity of incoming FDI. The first implies a lower income multiplier in the economy and ceteris paribus a reduced ability to increase public revenue through taxation. The effect of the second is to increase competition between actual and potential recipients of incoming FDI and to encourage a more proactive stance with respect to attracting FDI. Thus a relatively greater portion of public revenues and public administrative and related resources are taken up in attracting incoming FDI.

6.1. Implications for MNE strategy

Recent IB discussions of the MNE-development connections have implicitly and – occasionally explicitly – questioned the efficacy of the dominant MNE strategies in the LDCs (Dawar & Chattopadhyay, 2002; London & Hart, 2004; Ramamurti, 2004). The focus on poverty in some recent writings is arguably also a reflection of a critical stance vis-a-vis MNE strategies (Ghauri & Buckley, 2006; Jain & Vachani, 2006; Kolk & van Tulder, 2006). Others have observed the absence of a governance structure to manage the interdependence between LDCs and MNEs (Ghauri & Cao, 2006; Zanfei, 2005). The key point in the recent discussion is not so much that LDCs have not gained...
sufficiently from their engagement with MNEs but that current strategies do not serve the MNEs very well either. Dawar and Chattopadhyay (2002) chastise MNEs for being ‘trapped by their own devices in gilded cages, serving the affluent few but ignoring the potential of the billions of new consumers’. A similar criticism is developed by London and Hart (2004) who recommend a ‘reinvention’ of MNE strategies for LDCs and emerging economies and propose a departure from the current low involvement strategies and operational modalities in LDCs. This is an important observation and one that gains significant credence from the investment behavior of MNEs in developed countries where they have developed collaborative strategies to effectively tap into the created assets of countries and companies (Dunning & Narula, 2004). Recent research on spillovers (Oetzel & Doh, this issue) has suggested that, in cases where subsidiaries are effectively embedded in the host economy there maybe spillovers from the local environment to the subsidiary and hence to the MNE as whole. Nor is such ‘reverse’ spillover limited to developed economies only, as the recent research by Marin and Bell (2006) indicates. Andersson and Persson (2006) show that MNE headquarters direct more investment funds towards those subsidiaries that, through their embeddedness in their local economies, have gained capabilities which are important to the rest of the organization. Interestingly, subsidiary market performance or profitability per se did not appear to be a significant factor in attracting headquarters’ investment. These findings support the notion that the long-term investment behavior of MNEs in developed countries is focused on capability development. In fact, there is a line of analysis that suggests such capability development in the local economy of subsidiaries is an ‘advantage of multi-nationality’ (Regner, 2003; Yamin, 2002).

London and Hart (2004) cite cases of companies succeeding with ‘non-traditional’ strategies in LDCs. These strategies include developing relationships with non-traditional partners, co-inventing custom solutions, and building local capacity. London and Hart (2004) conclude that, these successful strategies suggest the importance of MNEs developing a global capability in ‘social embeddedness’ – in other words policies that are not very different from those already working well in developed economies.

Zanfei (2005) develops a similar point and, applying the prisoner dilemma logic, argues that the dominant MNE strategies in LDCs create a low payoff outcome for both parties. LDCs resources are focused on attracting FDI rather than investing in human capital and infrastructure so as to benefit more fully from incoming FDI. On the other hand current MNE strategies readily ignore the benefits they themselves could derive by helping to develop local capabilities (Oetzel & Doh, this issue; Zanfei, 2005, p. 12). Many LDCs have great potential of becoming strategic markets and in particular may become important sites for developing new products and services, oriented towards large markets with distinctive cultural and institutional patterns. However, as in the typical prisoner dilemma situation, mutually beneficial outcomes in the MNE–LDC relationship are difficult to obtain as these require credible and sustained cooperation between the parties.

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References


Boardi, K., Kuitunen, M., Raheem, K., & Hanninen, K. (2005). Urbanisation patterns. However, as in the typical prisoner dilemma situation, mutually beneficial outcomes in the MNE–LDC relationship are difficult to obtain as these require credible and sustained cooperation between the parties.


