

**Innovation and Multinational Companies from Emerging Economies:  
The Search for New Explanations**

Paz Estrella Tolentino  
Lecturer in International Business  
School of Business, Economics and Informatics  
Birkbeck, University of London  
[p.tolentino@bbk.ac.uk](mailto:p.tolentino@bbk.ac.uk)

Paper presented at the Third Copenhagen Conference on “Emerging Multinationals’:  
Outward Investment from Emerging Economies”, Copenhagen, Denmark, 25-26 October  
2012

## **Abstract**

A novel theoretical approach examines the emergence and evolution of the innovation capacities of MNCs, including emerging market MNCs (EMNCs), using a technological accumulation perspective that is embedded within a macroeconomic theory with distinctive patterns of national (industrial) development of home countries at core. Three differentiated patterns of national economic development across different 'types' of home countries are considered, which is determined by natural resource endowments, the size of the domestic market and the type of development path pursued in achieving industrial development. Using case studies of various MNCs from different home country 'types', the argument rests on the influence of the pattern of national economic development of home countries on the emergence and evolution of innovative capacities of indigenous firms, the types and the industrial course of outward FDI in a path-dependent but not path-determined process. The research results carry implications for the ongoing debates regarding the innovative capacities of EMNCs.

## 1. Introduction

The paper concerns the competitive entry of multinational companies (MNCs) from developing economies as a significant feature of the globalisation of markets in the world economy. For over 30 years, international business research has evolved along with the labels attached to them from “Third World Multinationals” (Heenan and Keegan, 1979; Ghymn, 1980; Wells, 1983), “New Multinationals” (Lall, 1983), “Multinationals of the South” (Khan, 1986), and Newly Industrialising Economy (NIE) Multinationals to “Dragon Multinationals” (Mathews, 2002) and “Emerging Market Enterprises” (Luo and Tung, 2007). Scholars have been searching for a deeper understanding of *inter alia* the characteristics of these firms, the determinants of their international expansion, their ownership advantages, and their impact on global competition, as well as the dynamic changes in all these factors over time. The topic of innovation of Emerging Market MNCs (EMNCs), the focus of the current paper, helps to integrate these key themes in the international business literature. The topic also happens to be the focus of the 3<sup>rd</sup> Copenhagen conference on ‘Emerging Multinationals’: Outward Investment from Emerging Economies.

The current paper seeks to advance the contours of three conceptual debates in the international business literature relating to the innovation capacities of EMNCs over the last 30 years. The first relates to the characteristics of, and sources of, the innovative capacities of EMNCs. The second relates to whether the innovative capacities of EMNCs are similar or different with MNCs from the developed countries. The third relates to the relative importance of asset exploitation versus asset augmentation in the emergence of EMNCs. The next section outlines the alternative theories which have tried to explain the innovation capacities of EMNCs. A novel theoretical approach is introduced in the third section which considers the emergence and evolution of the innovation capacities of MNCs, including EMNCs, using a technological accumulation perspective that is embedded within a macroeconomic theory with distinctive patterns of national development of home countries at core. It is suggested that home countries may fall in one of three ‘types’: resource abundant countries, resource scarce large countries and resource scarce small countries. The fourth section discusses case studies of MNCs from a range of developed and developing countries belonging to each country ‘type’. The concluding section looks at the

study's conceptual and empirical implications in light of the ongoing debates, limitations as well as avenues for further research.

## **2. Alternative theories explaining innovative capacities of EMNCs**

The theoretical foundations explaining the innovation capacities of EMNCs have been laid in the 1980s with the product cycle model and the theory of localised technological change. Wells (1977, 1983) and Lecraw (1977) extended the use of Vernon's product cycle model to explain "Third World Multinationals". To Jenkins (1986), Wells (1983) "...presents a useful synthesis of what may be described as conventional wisdom on Third World TNCs..." (p. 459). At the core of this model is a pecking order of countries based on their different production costs and abilities for technological innovation. Hence, the international expansion of "Third World Multinationals" through exports and outward foreign direct investment (FDI) follows the earlier international expansion of MNCs from the more developed countries. In this view, the competitive advantages of "Third World Multinationals" are distinctive from developed country MNCs as they derive from, and respond to, the peculiar nature of their home markets. Wells (1981, 1986) provides a full description of their distinctive features. First, these firms are engaged in industries characterised by low R&D expenditures and low product differentiation. Second, these firms develop small-scale, labour-intensive processes and products and have a higher propensity to source inputs locally. Third, these firms develop technology for manufacturing in small volumes, which may result from genuine process innovation or may represent adaptations of large-scale technology for small-scale processes. Fourth, most small-volume plants designed by these firms have greater flexibility. He concludes that the innovation capacities of these firms are exploitable in foreign markets, particularly in lesser developed countries.

In acknowledging the capacity of "Third World Multinationals" for technological innovation, the product cycle model allows for a narrower scope which is limited to the imitation and adaptation of technology in accordance with the requirements of markets and production conditions in developing countries. Wells (1983) suggests that they may have advantages that come from adapting technology to the circumstances of smaller plant and smaller firm size, as well as a technological advantage in utilising locally available natural resources rather than imports. Although some firms may have more complex forms of innovative

capacities, the downscaling of technology in the manufacture of traditional products and the use of local natural resources as novel inputs in the production process more generally equate to a limited level of innovative capacities on the part of “Third World Multinationals” whose activities are generally confined to the later stages of the product cycle. What is more, there seems to be little *a priori* reason why developing country affiliates of American or European MNCs cannot imitate and copy the technological improvements achieved by these developing country MNCs, given their broader experience of adapting technologies. The innovative activities can be viewed simply as a different way of adapting an essentially foreign technology and product development.

The alternative theory supposes that firms from developing countries are capable of a broader scope of innovation. Based on a model of localised technological change, the idea advanced by Lall (1983a) has its roots in the evolutionary theory of technological change of Atkinson and Stiglitz (1969), Nelson and Winter (1982), Stiglitz (1987), Arthur (1989), among others. The model provides a framework in which to analyse the proprietary or firm-specific advantages of the “New Multinationals” which derive from their ability to innovate on essentially different lines from firms in developed countries, that is, innovations that are based on lower levels of research, technology, size and skill. While the competitive assets of MNCs from developed countries derive from frontier technologies and sophisticated marketing skills, those of the “New Multinationals” derive from widely diffused technologies, special knowledge of marketing relatively undifferentiated products or special managerial or other skills. Some “New Multinationals” may be able to reproduce efficiently certain technologies possessed by developed countries, but they are unable to compete in the frontiers of innovation because they do not have a large size or a rich reservoir of technological resources and their capabilities rests very firmly on the conditioning and experience of their home countries. Their advantages may have resulted from either some adaptation or improvement in the product or process technology (otherwise known as ‘minor’ innovation) which would be costly for other firms to produce or from a cost advantage in providing standardised technologies, or both. They may also derive strengths in marketing a particular product (not necessarily involving a highly advertised brand name) or some historical accident which enabled them to reap first-mover advantages (Lall, 1983b).

The capability of a developing country firm to innovate for a unique proprietary asset stems from the nature of technical progress, which although largely determined by the market and scientific advances, is localised at the micro level, path dependent and irreversible. Such localisation of technical change means that firms only undertake a limited range of techniques which depend upon the existing conditions of production since any shifts on a theoretical production function require substantial costs. The path dependence and irreversibility of technical change arises from the way in which technical change affects not only the innovating firm but also a broad range of linked industries. There would be inefficient reproduction or transfer of older technologies once an entire industry has progressed to new technologies, and become firmly established.

Lall (1983a) further chips away at the conventional wisdom from a methodological standpoint in advocating that the evidence presented by Wells to support the existence of distinctive features of these MNCs vis-à-vis MNCs from developed countries amounts to little more than casual empiricism. His research showed that down-scaling is not a particularly prominent aspect of the process of technological adaptation by the “New Multinationals”, and there is doubt over the greater labour intensity of their foreign subsidiaries or their tendency to introduce more appropriate undifferentiated, price-sensitive products in developing host countries compared to developed country MNCs. From the standpoint of the model of localised technological change, the product cycle model view of advantages of developing country MNCs in small-scale, labour-intensive technologies using locally available inputs only applies in specific circumstances. This is when these technologies are more efficient than those offered by competitor firms or when they result from the actual process of technical change within these firms, which other firms or MNCs cannot reproduce or transfer without costs. This happens, for example, when firms achieve cost reductions (by process improvements or factor substitution), attain raw material/ component substitution, adapt products to specific markets or engage in product innovation, all as part of their indigenous efforts to generate their own technologies. It also happens when they have changed the scale or otherwise altered or improved a foreign but obsolete technology resulting in a substitution of raw materials or components, or the extension of the life or the uses of imported capital goods or equipment. Thus, unlike Wells,

Lall (1983a) projects a favourable assessment of the future prospects of the “New Multinationals”: “The growing technological and entrepreneurial dynamism of large numbers of Third World enterprises leads us to believe that many will flourish as international firms.” (p. 286)

The model of localised technological change is an idea implicit in the more general theory of firm and the MNC based on technological accumulation. Although the different type of innovation pursued by EMNCs requires a broader view of technology creation outside the sphere of research and patenting activity, the theory of technological accumulation is still a useful means of analysing the international growth of manufacturing from quite different environments, and at different stages of technological development and capacity (Cantwell and Tolentino, 1990).

### **3. The search for new explanations**

It is clear that in both the product cycle model and the model of localised technological change the innovation capabilities of developing country MNCs generally rests very firmly on the conditioning, experience and peculiarities of their home country markets. The model of localised technological change allowed for home country-specific variations. Lall (1983b) provided compelling evidence that the overseas ventures of the leading developing countries in outward FDI in manufacturing (Argentina, India, Hong Kong and Singapore) display varying extent of indigenous embodied (capital goods) and disembodied (know-how, managerial skills, marketing, and so on) technologies. These reflect the size of the capital exporting economy, the diversity of its industrial base (in particular, the development of the capital goods sector) and its level of indigenous technological development.

A complementary view is provided by the theoretical perspective of comparative institutionalism which attributes institutional differences between market economies to the variations in the innovative strategies and patterns of innovative performance between countries. Whiteley (2000) considered that variations may arise between country ‘types’. He concluded that the six major forms of economic organisation or business systems, which are developed or reproduced in particular institutional contexts in market economies (of which there are six ‘types’: fragmented, coordinated industrial district, compartmentalised,

collaborative, highly coordinated and state organised) are associated with distinctive innovation strategies (of which there are five 'types': dependent, craft-based responsive, generic, complex and risky, and transformative).

The current research pursues these themes by analysing the emergence and evolution of the innovation capacities of MNCs, including EMNCs, using a technological accumulation perspective that is embedded within a macroeconomic theory with distinctive patterns of national development of home countries at core. I propose that the innovation capacities of MNCs relates closely to the phase of MNC expansion which in turn is associated with the distinctive patterns of national development (or industrial development) of their home countries. This dictum has antecedents in the eclectic paradigm of Dunning (1981, 1988), Swedenborg (1979), Clegg (1987), Wilkins (1988), Porter (1990) and Lane (1998) among others. In the analysis of ownership-specific advantages in the eclectic paradigm, Dunning distinguishes between those advantages that are determined by country-specific factors (i.e. those that accrue to all firms of one nationality over those of other nationalities), in addition to those that are determined by industry-specific factors (i.e. those that accrue to all firms within a given industry) and firm-specific factors (i.e. those that enable a firm to compete successfully with other firms within their own industry both in domestic and international markets). The country-specific factors may be generated by the size of a country's market, level of income, resource endowments, educational system, government policy toward R&D, patent and trade mark legislation, etc. Swedenborg (1979) considered such home country characteristics as firm-specific knowledge, size of the home market, resource endowment, distance to major markets, etc. as relevant determinants of both the industrial and geographical distribution of outward FDI. Similarly, Clegg (1987) cited country-specific variations in licensing, exports and outward FDI which are explained by the indigenous environment and resource advantages of home countries and also its institutions, government policy and the maturity of firms in international economic involvement. Furthermore, Wilkins (1988) argued that all companies with outward FDI have been shaped by economic and other conditions in their home country, and only subsequently by economic and other conditions in their host countries. Unique national characteristics in each home country have thus an impact on the nature and extent of the outward FDI of firms. This includes factor costs, level and pace of industrialisation, areas of technological



expertise, size and nature of the domestic market, relationships between banks and industries, national endowments of and requirements for natural resources, the availability of professional education, the country's position as an exporter or importer of capital, government policies, geographical position, trade patterns, emigration, and culture and taste. Porter (1990) also proposed that the national environment plays a central role in the competitive success of firms and industries. In that view, the home nation influences the ability of its firms to succeed in particular industries. This relates closely to the theory of Lane (1998) that the extent of embeddedness of MNCs to their home countries and in particular their degree of implantation into national economic and policy networks and national business systems influences their internationalisation strategy – the degree of outward FDI undertaken, the kind of competitive advantages the MNCs possess and the kind of competitive advantages MNCs derive from FDI, as well as the way in which nationally based and globally based activities are combined. Fortanier and van Tulder (2009) argued of the important differences as well as important similarities between China and India in the role of home country regulation and institutions in influencing but not fully determining firms' internationalization trajectories.

In examining the relationship between national economic development and the development paths of outward FDI in this research, countries are classified into 'types' in the way that Cantwell (1997) had described when analysing developmental paths of *inward* FDI. The justification is that sectoral or industrial patterns of outward FDI bear a close analogy to that of inward FDI in an earlier period. The analogy emerges partly from the role of inward FDI as a major modality of technology transfer to the host country (Findlay, 1978; Lall, 1983a), as a result of which there may be developmental upgrading of innovative domestic industries and the enhancement of indigenous technological competence of host country firms that are able to respond competitively to the presence of foreign based MNCs through their own international expansion at a later stage (see Dunning and Cantwell, 1982; Tolentino, 1993).

The country 'types' vary according to the distinctive patterns of national economic development of *home countries* which take into account endowment of natural resources, the size of the domestic market and the type of development path pursued in achieving

industrial development. Three country 'types' are described: resource-abundant countries, resource-scarce large countries (with resource-intensive production) and resource-scarce small countries (with non-resource-intensive production) (Table 1).<sup>1</sup> The organisation of countries in these 'types' facilitate the identification of the dominant form of the earliest outward FDI, as well as the type of locally based firm that initiated outward FDI. This assumption rests on the premise that since patterns of national economic development are distinctive between country 'types', the distribution of firm-specific knowledge across industries in different countries would also tend to differ – and particularly so in the early stages. This means that there may be a peculiar home country-specific element to the analysis of outward FDI since ownership advantages – although these may remain the property of firms – vary in a systematic manner between countries (Clegg, 1987) owing to differences in national economic structures, values, cultures, institutions and histories. The generation and maintenance of competitive advantages thus tends to be a localised process (Porter, 1990).

The evolution of outward FDI, i.e. its development path, is closely associated with domestic industrial development regardless of country 'types' according to patterns of national development. However, the precise form of the relationship varies among country 'types' (Table 2). Thus, while locally based MNCs from *resource abundant* countries can be expected to diversify from an initial concentration in resource extraction towards downstream processing of natural resources in resource-rich host countries, locally based MNCs from *resource scarce large* countries are expected to upgrade their international production steadily from resource processing towards more capital- and technology-intensive industries. The rapid evolution of outward FDI is associated with industrial upgrading and the generation of strong production and export position in the home country. Finally, the evolution of outward FDI by locally based MNCs from *resource scarce small* countries are expected to be far more limited and although there may be some industrial upgrading, there is a marked tendency towards greater service orientation. Locally based MNCs from these resource scarce smaller countries are thus expected to have

---

<sup>1</sup> There was a necessity to divide the group of resource-scarce countries into small and large countries, while there was no necessity to do so for the group of resource-abundant countries (Cantwell, 1997).

significant FDI in the service industries owing to the development of their home countries as service economies.

Thus, the argument is that the pattern of domestic industrial development influences the emergence and evolution of local technological competence of leading national firms in a process of technological accumulation. The emergence and evolution of local technological capacities of leading national firms will be expected to vary according to patterns of national development of home countries and influence the type of outward FDI and its industrial course over time (Table 3).

#### **4. Case studies**

This research looks empirically at the changing innovative capacities of MNCs in the broader context of the emergence and evolution of MNCs from a number of home countries. The cases to be examined encompass MNCs from a broad range of home countries to include resource abundant home countries, resource scarce large home countries and resource scarce small countries. The selection of a variety of home countries was necessary to demonstrate the relevance of the inter-relationships between the evolving innovative capacities of MNCs, the developmental process of outward FDI, and distinctive patterns of national development. The inclusion of MNCs from a developed and developing country for each distinctive country 'type' also helps to determine whether analysis of comparisons and contrasts between MNCs from developed and developing countries should more usefully proceed in accordance with distinctive home country 'types'.

##### **4.1 Resource abundant countries**

The earliest outward FDI of MNCs based in the resource abundant home countries such as the United States and Brazil tended to predominate in one of two principal activities. The first principal activity has been in resource extraction and sometimes resource processing in agriculture, forestry, petroleum or minerals in resource-rich host countries. This can be linked to the presence in the home country of rich and abundant natural resources which enabled indigenous firms to develop management and organizational skills and technologies in natural resource extraction and processing which were exploited profitably abroad. The second principal activity in their earliest outward FDI has been the establishment of sales

and production subsidiaries in large foreign markets by firms in the engineering industries comprising metal manufactures, machinery and transport equipment in which firm-specific knowledge has been generated from an abundance of mineral resources in the home country. This fostered a well-entrenched tradition of industrialisation based on metals processing, the technical and metallurgical know-how of which spilled over into related sectors of the engineering industry such as machinery and transport equipment. This is a seemingly common pattern of emergence of MNCs based in resource abundant countries (Tolentino, 2000).

However, some fundamental differences arise in the evolutionary pattern of MNCs based in the resource abundant larger countries of United States and Brazil. Considering the manufacturing sector alone, American MNCs have emerged first in metallurgical industries, and then evolved in the 1920s in industries that competed on the basis of product differentiation (such as food and drink, textiles and clothing) as well as in industries with distinctive products. American industries with worldwide technological leadership gained from the transfer abroad of techniques in product design, engineering and organisation of production (electrical industry, motor vehicle industry, certain metal products, petroleum), as have companies with advanced marketing methods (motor vehicles, metal products, petroleum). The kinds of American manufacturing enterprises that invested abroad in later decades closely resembled the investors of earlier years: these were leading firms in their industries in the United States that had advantages in technology, unique products and a long history of international economic orientation. The fact that an industry was technologically advanced did not *ipso facto* guarantee large FDI, but it generally meant that leading companies in that industry would in time, after finding exports could not continue to fulfil foreign demand, show an interest in extending their investments abroad. The American companies whose entrepreneurs exhibited far-sighted leadership grew rapidly and made the most far-ranging investments in foreign countries (Wilkins, 1974). These features describe consistently the growth of American MNCs over time, particularly in the manufacturing sector.

Although Brazilian manufacturing MNCs – like those of the United States and other large countries generally – have also been involved in a wide breadth of industries to include food products, textiles, clothing and footwear, paper packaging, wood and furniture,

bicycles, lifts, electrical products, steel products and capital goods, motor vehicle parts, and aircraft (Guimaraes, 1986; White, 1981; Villela, 1983), these firms do not compete on the same basis as American MNCs. Brazilian manufacturing companies in metalworking, mechanical engineering and electrical equipment have fairly advanced foundry skills and skills in the organisation of production, but these firms did not feature prominently in trademarked or branded merchandise widely advertised in Brazil. Some of the outward FDI of Brazilian MNCs such as Copersucar and Gradiente Electronics was geared to penetrate the markets of developed countries by acquiring an established trade name abroad. Neither has any Brazilian industry or firm attained significant worldwide technological leadership (the closest it had achieved was the approach to the world technological frontier where this was fairly stable in some metalworking and mechanical engineering industries) nor developed sophisticated technological advantages and advanced marketing methods (Tolentino, 2000)

#### 4.2 Resource scarce large countries

Although the dominant form of the earliest outward FDI of MNCs based in resource scarce large countries has also been in resource extraction and sometimes resource processing in agriculture, forestry, petroleum or minerals in resource-rich host countries, the driving factor differed fundamentally from that of MNCs based in resource abundant countries. Outward FDI in resource based activities by MNCs in the resource scarce large countries such as the United Kingdom, Germany, Japan, South Korea and Taiwan was provoked by the demand of domestic processing industries for minerals, energy and other raw materials and the demand of domestic consumers for agricultural produce. Owing to their countries' resource scarcity, the vital needs of industries and consumers could not be met in the home country or only inadequately. The shortage of natural resources became the driving force to search and gain control over new or additional sources of natural resources in resource-rich foreign countries. This explains much of the FDI by firms from the United Kingdom and Germany in the nineteenth century, as well as Japan in the 1950s and South Korea and Taiwan in the 1960s and 1970s (Tolentino, 2000).

Apart from resource-related activities, manufacturing was also an important sector in the origins of MNCs from the five resource scarce large countries although the manufacturing

FDI that emerged across the five countries differed in the kinds of industries that spawned the earliest MNCs, the kinds of firms that initiated international production, the determinants of such international production and their principal host countries. The international production of a significant number of British manufacturing MNCs emerged in branded consumer goods (Dicken, 1992; Chandler, 1986) which was a reflection to a large extent of the comparative advantages of the United Kingdom in labour intensive, capital neutral and human capital-scarce products (Crafts and Thomas, 1986) and the technological hegemony of the United Kingdom in the industries associated with the First Industrial Revolution. These were textiles or textiles-related industries and consumer goods industries intensive in the use of natural resources. The emergence of Japanese MNCs, Taiwanese MNCs and South Korean MNCs in manufacturing bear a closer resemblance to the pioneering British MNCs in their concentration in industries reflecting a comparative advantage in labour intensive, capital neutral and human capital-scarce products rather than in the higher technological intensity of the early German MNCs. The emergence of the outward FDI of Japan in manufacturing perhaps bears the closest similarity to that of the United Kingdom in their common basis in textiles or textiles-related industries (Tolentino, 2000).

The evolution of Japanese MNCs in manufacturing is in many respects *sui generis* in the growth of modern MNCs. Although the origins of Japanese MNCs can be traced to the late nineteenth century, the early pattern of Japanese FDI remained essentially the same from the period prior to 1914 through to the inter-war period. The early stage of domestic industrial development in which Japan generated MNCs of their own explains why Japanese MNCs from the period of their emergence until the Second World War did not derive their ownership-specific advantages from technological strengths and organisational competence, the possession of brand and trademarks and the ability to supply high-quality differentiated goods which described British and German manufacturing MNCs since their emergence in the nineteenth century. However, the period since the Second World War was associated with the rapid domestic industrial transformation of the Japanese economy accompanied by the rapid evolution of Japanese FDI in manufacturing. In this period more than ever before, Japan's outward FDI was a crucial instrument or catalyst for the rapid process of domestic industrial upgrading (Ozawa, 1985; Kojima and Ozawa, 1985). There has been rapid industrial transformation from a concentration on the primary sector towards

the secondary and tertiary economic sectors, and within the secondary sector from labour intensive light manufacturing and heavy and chemical manufacturing to knowledge intensive, fabricating assembly-based industries and mechatronics-based flexible manufacturing of highly differentiated goods. The continual rapid rise in labour productivity and wages at the end of each phase have led to shifting patterns of production and trade competitiveness for Japanese manufacturing companies as well as evolving patterns of Japanese MNC activities.

To the extent that South Korean manufacturing FDI could be compared with that of Japan since the Second World War, the first and second phases of Japanese FDI in labour intensive manufacturing in textiles, sundries and other low wage goods (the first phase) and in heavy and chemical industries during the Ricardo-Hicksian trap stage of Japanese FDI (the second phase) had been transposed in the case of history of South Korean manufacturing MNCs (see Jo, 1981; Koo, 1984; Kumar and Kim, 1984). This is associated with the prolonged dependency or sustained comparative advantage of the South Korean economy in labour intensive production until the late 1980s. South Korean MNCs had reached the third phase of Japanese FDI in assembly-based, subcontracting-dependent, mass production in foreign markets in the same set of consumer durable industries – cars, consumer electronics and semiconductors – that have been at the core of the global strategies of the South Korean large conglomerate companies (*chaebol*) in the 1980s and 1990s. The South Korean *chaebol* much like their Japanese counterparts – the *keiretsu* – spearheaded the large-scale, import substituting FDI of their countries geared to overcome trade restrictions in the developed countries. The emergence and growth of the *chaebol* and the *keiretsu* had been fostered by the effort of their respective governments to accelerate domestic industrial development in large-scale, complex and technologically advanced industries through high industrial concentration. A common theme in Japan and South Korea is the leading role of their governments in directing shifts in their countries' dynamic comparative advantage (see also Aggarwal and Agmon, 1990). Towards this end, the development of indigenous skills and technological capacities was emphasised, and growth was based on knowledge-based industries (Crawford, 1987).

Despite the arrival of South Korea at the third phase of Japanese FDI in manufacturing, there are important differences between Japanese MNCs on the one hand and South Korean MNCs on the other. There is a broader range of more technologically advanced consumer durable goods produced by Japanese *keiretsu* in their international production networks worldwide from around the mid-1970s onwards combined with their advanced marketing capabilities (high brand name recognition, product differentiation, extensive distribution channels, high advertising and promotion expenditures, etc.). This contrasted with the much narrower product range, less technologically advanced and far less advanced marketing capabilities of South Korean MNCs in major markets in the 1980s and 1990s. The current evolution of the South Korean firm, Samsung, is noteworthy. Now considered the “world’s biggest technology manufacturer” (*The Economist*, 1 September 2012), its gadgets are Apple iPhone’s nearest rivals.<sup>2</sup>

#### 4.3 Resource scarce small countries

A common pattern of growth of MNCs from resource scarce small countries such as Switzerland, Singapore and Hong Kong lies in the importance of the services sector in outward FDI – a feature of the development of their home countries towards service-based economies. The closest parallelism can be drawn in the growth and development of outward FDI in trading, banking, finance and insurance in these three economies. In the case of Switzerland, this arises from the country’s well entrenched historical position as a trading, commercial and financial power (Bergier, 1968). This was favoured by the country’s central geographical location on major European trade routes and political neutrality that allowed its firms to benefit from the maintenance of commercial contacts with each of the major European power centres (France, Germany and Great Britain) even during times of conflict. Its central location in Europe and well entrenched position in trading and commerce in turn helped it to foster its expertise in banking and insurance (Porter, 1990). The importance of general business services and personal services for Switzerland generally and as industries for Swiss MNCs stem from the highly advanced pattern of domestic demand for these services associated with the high per capita income of the Swiss economy and its position as a location of the regional headquarters of foreign firms and international organisations.

---

<sup>2</sup> Apple vs Samsung: iPhone, uCopy, iSue. *The Economist*, September 1st 2012.



The growth of significant outward FDI in banking and financial sectors by Hong Kong in particular is resonant of the growth and development of Swiss MNCs in these sectors. It draws from a similar historical position of Hong Kong as an entrepôt trade in its region facilitated by the local establishment of large British companies in the banking and finance, trading and services industries starting in 1841 with the inception of Hong Kong's colonial history. The process of deindustrialisation combined with the country's small size also led to the growth of the domestic economy as a services-based economy and its transformation from a British colonial entrepôt into a leading trading and financial centre in the region (Ho, 1992). The growth of Hong Kong's outward FDI in the other services industries (hotels, property, leisure services, construction) is linked to the development of Hong Kong as a services-based economy.

Another distinctive feature in the growth of MNCs from resource scarce small countries – that is unlike that of MNCs from the resource scarce large countries – is the relatively lower significance of outward FDI in resource extraction, processing and associated service investments particularly for MNCs from Hong Kong and Singapore. This stems from the specialisation of their economies in a narrower range of industries that did not involve the large-scale development of domestic processing industries. The marked exception is Switzerland that spawned highly successful firms such as Alusuisse-Lonza, von Roll, Georg Fischer and other firms in the processed metal products industries in which Switzerland developed a highly competitive position (Tolentino, 2000). These strengths in metals processing cannot be attributed to the relatively few natural resources that Switzerland possesses, with the exception of its capability to generate relatively inexpensive hydroelectric power useful in the reduction of alumina to aluminium (Alusuisse). Switzerland is therefore an exception to the general tendency of resource scarce small countries to pursue non-resource intensive domestic production.

Swiss MNCs have emerged in a broader range of manufacturing industries which mirrors the broad breadth of Swiss domestic industries. Swiss MNCs have emerged first in the textiles industries of cotton, silk and straw in the eighteenth century, and then evolved in the nineteenth and twentieth century in processed metal products, machinery, electro-technical

and electro-chemical industries, processed food products (milk products, baby foods, chocolates, jams and preserves), speciality chemicals and pharmaceuticals, paper and graphics and so forth (Wavre, 1988). By contrast, the much narrower range of manufacturing industries that constitute Hong Kong's manufacturing sector explains the narrower breadth of industries that Hong Kong MNCs emerged and evolved. The domestic economy of Hong Kong continues to be dominated by the labour intensive production of clothing and textiles and to the extent that there had been some industrial diversification of the manufacturing sector, it is evident in the increased importance of other labour intensive industries in the country's domestic production and exports of manufactured goods – electronics and watches, clocks and other precision instruments – whose share increased over the last 40 years (Tolentino, 2000).

However, the source of competitiveness of the country and constituent firms differs between Switzerland and Hong Kong. The products of Swiss industry – whether manufacturing or services – have generally been focused on quality or based on extensive R&D and technical expertise (Schröter, 1993). The broad breadth of Swiss industries that are technologically advanced helps to explain both the much larger scale of their outward FDI, and the greater propensity of the leading companies in those industries to engage in international production should exports prove incapable to fulfil, or continue to fulfil, foreign demand. By contrast, the products of indigenous firms based in Hong Kong derive their competitiveness from lower cost labour or access to lower cost labour. The indigenous firms in Hong Kong demonstrate relatively weaker capabilities in capital intensive industries and more technologically intensive industries.

The research findings on the pattern of MNCs based in different country 'types' are broadly consistent with the hypothesis contained in Table 2 describing the *potential* development path for outward FDI, and their association with local industrialisation for the different 'types' of home countries. The more detailed *actual* development path is shown in Table 4.

#### 4.4 Technological accumulation and the national course of outward FDI

Table 5 charts the course of the form of technological competence of leading indigenous firms in relation to the corresponding types and industrial course of outward FDI by three

distinctive 'types' of home countries. An indication of the current stage of evolution of MNCs based in a number of home countries is also provided.

Regardless of observed variations in the pattern of the early stages and developmental paths over time of outward FDI across different 'types' of countries, there seems to be some convergence in the type and the industrial course of outward FDI in the most advanced stages of MNC expansion. Multinational companies from the more industrialised countries regardless of home country 'type' are commonly involved in more research-related investments in manufacturing and services and in the integration of their international networks. Such convergence has resulted partly from the cross-penetration of national markets by MNCs and the growing importance of the economies of large-scale production, cross investments and intra-industry trade and production.

Yet firm-specific knowledge has been generated and sustained in industries in which each country has a comparative advantage to a relatively large extent, and the industrial course of their outward FDI over time have tended to be correlated closely with the upgrading of a home country's domestic industrial structure consistent with the attainment of dynamic comparative advantage. There are long waves in the industrial specialisations of countries reflecting the stability in national industrial strengths which span many decades and sometimes even centuries. Accordingly, there are similarities within each distinctive group of home country in the corresponding types and industrial course of outward FDI as well as the extent of the progression of MNCs along a continuum from being nationally embedded MNCs to more globally oriented MNCs. These reflect the differentiated patterns of national economic development across different 'types' of home countries.

The core competencies or ownership advantages of firms and MNCs during the period of their emergence and early evolution reflect the distinctive patterns of national economic development of their home countries. However, during the later period of their evolution, the advantages of firms and MNCs become also determined by more firm-related factors such as the extent of multinationality of firms and the nature of technological development which tend to favour the retention of advantages within each firm. In the framework of the eclectic paradigm of international production, more mature MNCs would derive their asset

ownership advantages – their ownership or exclusive or privileged access to proprietary or intangible assets – not only from their home base but increasingly from their crossborder network of international production. This is the case particularly of knowledge- or learning-based firms with several home bases, as demonstrated, for example, in the case of Swedish companies that benefit from crossborder product, process or technological specialisation and learning from producing in different environments (Håkanson and Nobel, 1989). The aggressive and risk-taking investment behaviour in search of entrepreneurial rent and the effective policy of managing technology development rather than the overall economic development of their home country contributed to the extraordinary achievement of Samsung Electronics in developing its dynamic capabilities in semiconductors (Lee and Slater, 2007). This could entail accelerating the development of non-location based firm-specific advantages for EMNCs through asset-seeking behaviour as country-specific advantages become less important (Klein and Wöcke, 2007). Access to international financial and technological resources supported the internationalisation of product markets by Indian pharmaceutical firms, and helped to improve their innovative capacity and R&D intensity (Chittoor *et al* 2009). These are manifestations of the “springboarding” (Luo and Tung, 2007) internationalization strategies of EMNCs, but not for large Chinese and Indian firms currently whose dominant motive to internationalise prevail in the search for markets rather than assets (Fortanier and van Tulder, 2009).

Not only does the capacity of MNCs to generate asset ownership advantages augment with increasing multinationality through ‘reconfiguration, transformation and learning’ (Lee and Slater, 2007), the firm also gains sequential ownership advantages of the transaction cost minimising kind derived from the common governance of separate but inter-related activities located in different countries, and the way in which their assets are coordinated with assets of other firms and with the locational advantages of countries (Dunning, 1998). From a technological accumulation standpoint, the specificities of innovation across locations and firms increases the complexity of the process of technological development of firms, while the intra-firm utilisation of a distinctive type of technology generated within each firm explains the extension of the MNC network across national borders and the direct control of the MNC over such network as a whole (Cantwell, 1989). This explains increasing heterogeneity in the specific innovative capacities among firms in the same industry and

home country over time, given the somewhat path-dependent but not path-determined nature of innovation. However, there may be closer similarities in the evolving innovative capabilities of indigenous firms and MNCs belonging to the same country 'type' than between those belonging to different country 'types'.

Indeed, firm-specific factors play an important role in enabling the exploitation of country-specific advantage as well as enhancing it. By broadening its geographical scope, MNCs gain from the use of their unique line of technological development in new environments, while the exposure to new environments in turn extends the firm's unique path of technology generation in new growth directions. Should MNCs change as a result of the process of internationalisation, the extent and pattern of such change will be path-dependent and reflect their national context, including historical legacies and current institutional linkages (Whitley, 1998) as well as changes in these institutional linkages (Chittoor *et al*, 2009).

Table 6 also sets out the current stage of evolution of MNCs from different countries. It is evident that MNCs have evolved regardless of home country type. However, MNCs from developing countries remain at an earlier stage of evolution than those from more developed countries, despite similarities in the evolutionary path of the outward FDI of MNCs of the same home country 'type'. Even the truly large Chinese and Indian companies still have low levels of multinationality, and certainly in comparison with their western counterparts. They have a persistent strong home market orientation and only a very select set of large Chinese and Indian firms grew faster than firms in developed countries in their degree of internationalisation (Fortanier and van Tulder, 2009). This is not to preclude the capacity of developing economies to generate a few globally competitive MNCs who may challenge established MNCs from the developed economies (Chittoor and Ray, 2007).

## **5. Conclusion**

The current research examined the emergence and evolution of innovative capacities of MNCs, including EMNCs, theoretically and empirically. A novel theoretical approach was introduced, using a technological accumulation perspective embedded within a macroeconomic theory with distinctive patterns of national development of home countries at core. The findings may contribute to re-defining the contours of the ongoing debates

about EMNCs in the international business literature over the last 30 years. The first relates to the characteristics of, and sources of, the innovative capacities of EMNCs. The second relates to whether the innovative capacities of EMNCs are similar or different from those of MNCs from the developed countries. The third relates to the relative importance of asset exploitation versus asset augmentation in the emergence of EMNCs.

The evidence does seem to suggest that the broader scope of innovation allowed for in the theory of localised technological change enables it to hold sway in explaining the emergence and evolution of innovative capacities of EMNCs rather more than the product cycle model. However, the theory of localised technological change does not consider the influence of the phase of MNC expansion and the distinctive patterns of national (or industrial) development of home countries on the emergence and evolution of the innovation capacities of MNCs, including EMNCs, associated with the process of technological accumulation. The research considered three differentiated patterns of national economic development across different 'types' of home countries, which is determined by natural resource endowments, the size of domestic market and the type of development path pursued in achieving industrial development. The influence of the pattern of national economic development of home countries on the emergence and evolution of innovative capacities of indigenous firms, the types and the industrial course of outward FDI is a path-dependent but not path-determined process. There are closer similarities in the evolving innovative capabilities of indigenous firms and MNCs belonging to the same home country 'type' than between those belonging to different country 'types'. There is a resemblance within each distinctive 'type' of home country in the corresponding types and industrial course of outward FDI as well as the extent of the progression of MNCs along a continuum from being nationally embedded MNCs to more globally oriented MNCs. Taken in this light, it may be more useful to compare the emergence and evolution of innovative capacities of EMNCs vis-à-vis MNCs from the developed countries of the same rather than different home country 'type', let alone compare EMNCs with MNCs from developed countries more generally.

But just as there are to some extent divergent pathways to international expansion by MNCs depending on home country 'type', there is to some extent convergence, at more

advanced phases of MNC expansion, in the type and the industrial course of outward FDI of MNCs regardless of home country 'type'. However, there is increasing heterogeneity in the innovative capacities among firms in the same industry and home country over time. The specificities of innovation across locations and firms increase the complexity of the process of technological development of firms as globalisation proceeds. Entrepreneurial expectation and firm-specific methods of organising and coordinating resources may result in the heterogeneous behaviour of firms in the same industry (Tokuda, 2004).

Regardless of home country 'type', EMNCs are at an earlier stage of evolution than those from more developed countries. Even the truly large emerging market companies remain strongly home market orientated and only a very select set have grown faster than firms in developed countries in their degree of internationalisation. This is associated with their less complex forms of ownership-specific advantages which lie in sophisticated engineering practices, basic scientific knowledge, and less complex organizational methods rather than in the more science-based, advanced engineering, and more complex organizational methods characteristic of MNCs in the developed countries. The more facile transfer of knowledge and skills across firms and the growth of markets which lowered the absolute cost advantages of first-mover MNCs from the developed countries may have contributed to the competitive entry of EMNCs in international business. However, EMNCs have not yet attained the absolute cost advantages of first movers themselves because of their smaller size or less abundant reservoir of technological resources and capabilities which still rests firmly on the conditioning and experience of their home countries. The evolving global competitive dynamics as a result of the entry of EMNCs in new markets expands the scope of their closer interaction with large established MNCs from developed countries, and broadens the opportunities for the mutual enhancement of their ownership advantages.

The evidence gathered in this research shows that the process of asset augmentation follows the process of asset exploitation in EMNCs (see Klein and Wöcke, 2007 and Chittoor and Ray, 2007 for confirmation). Yet asset-seeking FDI is still not a dominant motivation for the international expansion of EMNCs, or at least some large Chinese and Indian MNCs (Fortanier and van Tulder, 2009), which puts paid to the idea that asset augmentation is the driving force behind the outward FDI of EMNCs (Li, 2007; Mathews, 2006).

The research adopted the view that business organisations are intrinsically related to their environments, and explained specifically how economic factors related to the home country could play an influential role in the emergence and evolution of MNCs. Further research could refine the current approach or explore how EMNCs reflect other social, organizational, historical and institutional dynamics of their settings. But it is also important to bear in mind the limits of explanations using nation-specific contexts.



Table 1 Variations in the early stages of outward direct investment across different 'types' of country

<i>Categorisation of national development</i>	<i>Examples of countries</i>	<i>Dominant form of earliest outward FDI</i>	<i>Type of locally based MNC</i>
Resource-abundant countries	Brazil Bolivia (tin) Chile (copper) Indonesia Malaysia Philippines Thailand Canada Sweden Russia (oil) United States	Resource oriented, and local market oriented in large countries	Resource-based firms
			Manufacturing firms, backwardly integrating
Resource-scarce large countries (with resource intensive production)	Argentina South Korea Taiwan Germany Japan United Kingdom	Local market oriented, trade related	Trading companies
			Manufacturing firms, serving local markets
Resource-scarce small countries (with non-resource intensive production)	Hong Kong Singapore Belgium Netherlands Switzerland	Export oriented, service based	Offshore producers
			Service firms (trade, shipping, finance)

Table 2 Potential development paths for outward direct investment, and their association with local industrialisation across different 'types' of country

<i>Categorisation of national development</i>	<i>Link between domestic development and the growth of outward FDI</i>	<i>Type of locally based MNC</i>
Resource-abundant countries	Related diversification (for example from mining), downstream processing (for example, metal processing, wood products, petrochemicals, agribusiness), with some other upgrading of industry in large countries	Resource-scarce firms
		Manufacturing firms
Resource-scarce large countries	Industrial upgrading and export growth (as wages rise following productivity growth)	Manufacturing firms
	Growth in importance of services	Services firms
Resource-scarce small countries	Shift away from simpler manufacturing activity to some industrial upgrading	Manufacturing firms, relocating activity
	Shift towards a greater service orientation	International service companies

Table 3 Technological accumulation and the national course of outward direct investment

	<i>Stages of national development</i>		
	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>
<i>Form of technological competence of leading indigenous firms</i>	Basic engineering skills, complementary organisational routines and structures	More sophisticated engineering practices, basic scientific knowledge, more complex organisational methods	More science-based advanced engineering, organisational structures reflect needs of coordination
<i>Type of outward direct investment</i>	Early resource- or market-seeking investment	More advanced resource-oriented or market-targeted investment	Research-related investment and integration into international networks
<i>Industrial course of outward direct investment</i>	Resource-based (extractive MNCs or backward vertical integration) and simple manufacturing	More forward processing of resources, wider local market-oriented and export-platform manufacturing	More sophisticated manufacturing systems, international integration of investment

Table 4 Actual developmental paths for outward direct investment, and their association with local industrialisation across different 'types' of country

<i>Categorisation of national development</i>	<i>Link between domestic development and the growth of outward FDI</i>	<i>Type of locally based MNC</i>
Resource abundant countries	Related diversification from resource extraction towards downstream processing (i.e. metal processing, wood products, petroleum processing and petrochemicals, agribusiness, etc.)	Resource-based firms
		Manufacturing firms
	International production in metallurgical industries resulting from the rapid development of domestic technologies, sometimes linked to mass production	Manufacturing firms, typically exporting firms
	Growth of international production in other manufacturing industries as a result of expansion of domestic firms and industries with trade-marked or branded merchandise or firms with distinctive products and techniques in product design, engineering and organization of production or advanced marketing methods.	Manufacturing firms, typically exporting firms
	Further industrial upgrading towards the services sector in the domestic economy and associated growth of exports and outward FDI in services	Services firms in a diverse range of industries
Resource-scarce large countries	Changing comparative advantage of the home country for labour intensive activities as wages rise following productivity growth.	Manufacturing firms, small and medium-sized
	Domestic industrial upgrading and export growth in processing industries, in industries related to new consumer needs and in fabricating industries embodying greater capital- and technology intensity and sometimes linked with mass production	Free-standing firms
		Manufacturing firms
	Further industrial upgrading	Services firms, including

	towards the services sector in the domestic economy and associated growth of exports and outward FDI in services	trading companies, banks and financial institutions
Resource-scarce small countries	Position of the home country as a trading and financial centre	Prominent families, trading companies, banks and financial institutions
	Growth of domestic production and exports in simple manufacturing typically labour intensive industries leading to international production due to trade barriers in major export markets, rising production costs, shortage of domestic labour or restrictive legislation in the home country	Manufacturing firms, small- and medium sized
	Domestic industrial upgrading in a broad range of industries both capital intensive and technology intensive, some of which are protected by trademarks and patents	Manufacturing firms, horizontally integrating
	Limited opportunities for growth due to the small size of the domestic market	Manufacturing firms and services firms, searching new markets
	Development of their home countries as service economies	International service firms, banks and financial institutions

Table 5 Technological accumulation and the national course of outward foreign direct investment

	<i>Stages of national development</i>		
	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>
<i>Form of technological competence of leading indigenous firms</i>	Basic engineering skills, complementary organisational routines and structures	More sophisticated engineering practices, basic scientific knowledge, more complex organizational methods	More science-based advanced engineering, organizational structures reflect needs of coordination
<i>Type of outward foreign direct investment</i>			
Resource abundant countries	Trading, railroads, early resource-seeking and market-seeking, services	More advanced resource-oriented or market-targeted investment in manufacturing and services	Research-related investment and integration into international networks
Resource-scarce large countries	Early resource-seeking, market-seeking or export-oriented investments in manufacturing and services	More advanced resource-oriented or market-targeted or export-oriented investments in manufacturing and services	Research-related investment and integration into international networks
Resource-scarce small countries	Trading, commerce, banking, insurance, labour intensive and natural resource intensive manufacturing	Resource oriented, market-targeted or export-oriented investments in more advanced manufacturing and services	Research-related investment and integration into international networks
<i>Industrial course of outward foreign direct investment</i>			
Resource abundant countries	Trading, railroads, resource based (extractive MNCs or backward vertical integration),	More forward processing of resources, or growth of fabricating industries for local	More sophisticated manufacturing and services systems, international integration of

	manufacturing, construction and consulting engineering	markets or exports; growth of services	investments
Resource-scarce large countries	Resources based (extractive MNCs or backward vertical integration), simple manufacturing, trading, banking, insurance, transportation and construction	More forward processing of resources, or growth of fabricating industries for local markets or exports; growth of services	More sophisticated manufacturing and services systems
Resource-scarce small countries	Services based and simple manufacturing	Growth of fabricating industries targeted to local markets or more complex export-oriented manufacturing; growth of services	More sophisticated manufacturing and services systems
<i>Current stage of evolution</i>			
		Brazil Taiwan South Korea Hong Kong	United States United Kingdom Japan Switzerland

## References

- Aggarwal, R. & Agmon, T. (1990). The international success of developing country firms: Role of government-directed comparative advantage. *Management International Review*, 30(2): 163-180.
- Atkinson, A.B. & Stiglitz, J.E. (1969). A new view of technological change. *The Economic Journal*, 79(315), 573-578.
- Arthur, W.B. (1989). Competing technologies, increasing returns, and lock-in by historical events. *The Economic Journal*, 99(394), 116-131.
- Bergier, J-F. (1968). *Problèmes de l'histoire économique de la Suisse*. Berne.
- Cantwell, J.A. (1989). *Technological innovation and multinational corporations*. Oxford: Basil Blackwell.
- Cantwell, J.A. (1997). Globalization and development in Africa. In J.H. Dunning and K.A. Hamdani (Eds.), *The new globalism and developing countries*. Tokyo and New York: United Nations University Press.
- Cantwell, J.A. & Tolentino, P.E. (1990). Technological accumulation and Third World multinationals. University of Reading Discussion Papers in International Investment and Business Studies, No. 139. Reading, UK: University of Reading Economics Department.
- Chandler, A.D. Jr (1986). The evolution of modern global corporation. In M.E. Porter (Ed), *Competition in global industries*. Boston: Harvard Business School Press.
- Chittoor, R. & Ray, S. (2007). Internationalization paths of Indian pharmaceutical firms — A strategic group analysis. *Journal of International Management*, 13(3): 338-355.
- Chittoor, R., Sarkar, M.B., Ray, S. & Aulakh, P. (2009). Third-World copycats to emerging multinationals: Institutional changes and organizational transformation in the Indian pharmaceutical Industry. *Organization Science*, 20(1), 187-205.
- Clegg, J. (1987). *Multinational enterprise and world competition: A comparative study of the USA, Japan, the UK, Sweden and West Germany*. London: Macmillan.
- Crafts, N.F.R. & Thomas, M. (1986). Comparative advantage in UK manufacturing trade, 1910-1935. *The Economic Journal*, 96(383): 629-645.
- Crawford, M.H. (1987). Technology transfer and the computerisation of South Korea and Taiwan – Part I: Developments in the private sector. *Information Age*, 9(1): 10-16.
- Dicken, P. (1992). *Global shift*. (2<sup>nd</sup> ed.). London: Paul Chapman.



- Dunning, J.H. (1981). *International production and the multinational enterprise*. London: Allen & Unwin.
- Dunning, J.H. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19(1): 1-25.
- Dunning, J.H. (1998). The changing geography of foreign direct investment: Explanations and implications. In N. Kumar (Ed), *Globalization, foreign direct investment and technology transfers*. London: Routledge.
- Dunning, J. H. & Cantwell, J.A. (1982). Inward direct investment from the US and Europe's technological competitiveness. University of Reading Discussion Papers in International Investment and Business Studies, No. 65. Reading, UK: University of Reading Economics Department.
- Findlay, R. (1978). Relative backwardness, direct foreign investment, and the transfer of technology: A simple dynamic model. *Quarterly Journal of Economics*, XCII(1): 1-16.
- Fortanier, F. & van Tulder, R. (2009). Internationalization trajectories--a cross-country comparison: Are large Chinese and Indian companies different?. *Industrial & Corporate Change*, 18(2), 223-247.
- Ghymn, K-I. (1980). Multinational enterprises from the Third World. *Journal of International Business Studies*, 11(2), 118-122.
- Guimaraes, E.A. (1986). The activities of Brazilian firms abroad. In C. Oman (Ed), *New forms of overseas investment by developing countries: The case of India, Korea and Brazil*. Paris: OECD.
- Håkanson, L. & Nobel, R. (1989). Overseas research and development in Swedish multinationals. Research paper 89/3. Stockholm: Institute of International Business.
- Heenan, D. & Keegan, W. (1979). The rise of third world multinationals. *Harvard Business Review*, 57(1),101-109.
- Ho, Y.P. (1992). *Trade, industrial restructuring and development in Hong Kong*. London: Macmillan.
- Jenkins, R. (1986). Third World multinationals: Rhetoric or reality?. *Journal of Development Studies*, 22(2), 458-463.
- Jo, S-H. (1981). Overseas direct investment by South Korean firms: Direction and pattern. In K. Kumar and M.G. McLeod (Eds.), *Multinationals from developing countries*. Lexington, MA: D.C. Heath and Company.

- Khan, K.M. (1986). *Multinationals of the South*. Lexington, MA: D.C. Heath and Company.
- Klein, S. & Wöcke, A. (2007). Emerging global contenders: The South African experience. *Journal of International Management*, 13(3), 319–337.
- Kojima, K. & Ozawa, T. (1985). Toward a theory of industrial restructuring and dynamic comparative advantage. *Hitotsubashi Journal of Economics*, 26(2): 135-145.
- Koo, B-Y. (1984). Outward investment by Korean firms: Their forms and characteristics. Paper presented at the OECD meeting on new forms of investment in developing countries. Paris: OECD.
- Kumar, K. & Kim, K.Y. (1984). The Korean manufacturing multinationals. *Journal of International Business Studies*, XV(1); 45-61.
- Lall, S. (1983a). *The new multinationals*. Chichester: John Wiley & Sons.
- Lall, S. (1983b). The rise of multinationals from the Third World. *Third World Quarterly*, 5(3), 618-626.
- Lane, C. (1998). European companies between globalization and localization: A comparison of internationalization strategies of British and German MNCs. *Economy and Society*, 27(4): 462-485.
- Lecraw, D.T. (1977). Direct investment by firms from less developed countries. *Oxford Economic Papers*, 29(3), 442-457.
- Lee, J. & Slater, J. (2007). Dynamic capabilities, entrepreneurial rent-seeking and the investment development path: The case of Samsung. *Journal of International Management*, 13(3), 241–257.
- Li, P.P. (2007). Toward an integrated theory of multinational evolution: The evidence of Chinese multinational enterprises as latecomers. *Journal of International Management*, 13(3): 296-318.
- Luo, Y. & Tung, R. L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4), 481-498.
- Mathews, J.A. (2002). *Dragon multinational: A new model for global growth*. Oxford: Oxford University Press.
- Mathews, J.A. (2006). Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management*, 23(1), 5-27.
- Nelson, R.R. & Winter, S.G. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.

- Ozawa, T. (1985). Japan. In J.H. Dunning (Ed), *Multinational enterprises, economic structure and international competitiveness*. Chichester: John Wiley & Sons.
- Schröter, H.G. (1986). A typical factor of German international market strategy: Agreements between the U.S. and the German electrotechnical industries up to 1939. In A. Teichova, M. Lévy-Leboyer and H. Nussbaum (Eds.), *Multinational enterprises in historical perspective*. Cambridge: Cambridge University Press.
- Porter, M.E. (1990). *The competitive advantage of nations*. New York: Free Press.
- Stiglitz, J.E. (1987). Learning to learn, localized learning and technological progress. In P. Dasgupta and P. Stoneman (Eds.), *Economic policy and technological performance*. Cambridge: Cambridge University Press.
- Swedenborg, B. (1979). *The multinational operations of Swedish firms: An analysis of determinants and effects*. Stockholm: Industrial Institute for Economic and Social Research.
- Tokuda, A. (2004). Amending the resource-based view of strategic management from an entrepreneurial perspective. University of Reading Discussion Papers in Economics and Management, No. 18. Reading, UK: University of Reading Business School.
- Tolentino, P.E. (1993). *Technological innovation and Third World multinationals*. London: Routledge.
- Tolentino, P.E. (2000). *Multinational Corporations: Emergence and evolution*. London: Routledge.
- Villela, A. (1983). Multinationals from Brazil. In S. Lall (Ed), *The new multinationals*. Chichester: John Wiley & Sons.
- Wavre, P-A. (1988). Swiss investments in Italy from the XVIIIth to the XXth century. *The Journal of European Economic History*, 17(1); 85-102.
- Wells, L.T. (1977). The internationalization of firms from developing countries. In T. Agmon and C.P. Kindleberger (Eds.), *Multinationals from small countries*. Cambridge, MA: MIT Press.
- Wells, L.T. (1981). Foreign investors from the Third World. In K. Kumar and M.G. McLeod (Eds.), *Multinationals from Third World countries*. Lexington, MA: D.C. Heath and Company.
- Wells, L.T. (1983). *Third world multinationals*. Cambridge, MA: MIT Press.

- Wells, L.T. (1986). New and old multinationals: Competitors or partners?. In K.M. Khan (Ed), *Multinationals of the South*. Lexington, MA: D.C. Heath and Company.
- White, E. (1981). The international projection of firms from Latin American countries. In K. Kumar and M.G. McLeod (Eds.), *Multinationals from developing countries*. Lexington, MA: D.C. Heath and Company.
- Whiteley, R.D. (2000). The institutional structuring of innovation strategies: Business systems, firm types and patterns of technical change in different market economies. *Organization Studies*, 21(5): 855-886.
- Wilkins, M. (1974). *The maturing of multinational enterprise: American business abroad from 1914 to 1970*. Cambridge, MA: Harvard University Press.
- Wilkins, M. (1988). European and North American multinationals, 1870-1914: Comparisons and contrasts. *Business History*, XXX(1): 8-45.