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Firm Internationalization and Subsidiary Roles: The Case of Hyundai Motor Company*

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Abstract and Key Results

- By linking the field of firm internationalization with the literature on subsidiary roles and knowledge flows in MNEs, the paper develops a new conceptual model of firm internationalization to understand and predict the rapid global expansion of the late-comer emerging-market multinationals.
- The model characterizes firm internationalization as a heterogeneous process of strategic development of subsidiaries overseas and delineates peculiar roles played by subsidiaries in pursuit of the headquarters' internationalization strategies.
- We further operationalize the model to make sense of a concrete empirical case. We demonstrate that the existing perspectives, taken in concert, offer best explanation of the rapid internationalization of Hyundai Motor Company (HMC) beyond exporting since the 1990s.
- Showing a path-independent feature of international expansion, the HMC experience shows a pluralistic character of firm internationalization. HMC's internationalization strategies also define the corresponding roles of its overseas subsidiaries and shape the knowledge-flow patterns within the company's global operations.

Key Words

Heterogeneous Internationalization, Subsidiary Roles, Hyundai Motor Company

Introduction

Instead of having largely run its course in international business (IB) research (Buckley 2002), the field of firm internationalization seems to have re-gained its momentum recently with a cluster of studies published in major IB journals (e.g. Gassmann/Keupp 2007, Luo/Tung 2007, Weerawardena *et al.* 2007, Zhou 2007, Zucchella *et al.* 2007, among others). Many of these new studies concentrate on advancing our understanding of the unconventional international expansion of emerging market firms (Yiu *et al.* 2007, Elango/Pattnaik 2007, Filatotchev *et al.* 2007, Weerawardena *et al.* 2007, Zhou 2007). But like the traditional approaches, they implicitly assume that firms adopt one uniform strategic approach towards international expansion of their operations. We argue that this assumption does not reflect the true character of firm internationalization especially since the 1990s. Firms engage in international operations in different parts of the world for different purposes and, as a result, the internationalization process is more complex and pluralistic than can be captured by any single theoretical approach alone. As its first goal this paper aims to integrate existing theoretical perspectives into a new model that can help us better understand and predict the rapid global expansion of emerging-market multinational enterprises (MNEs).

Second, the existing literature examines the firm internationalization process almost exclusively from a headquarters' perspective and fails to recognize the central role of subsidiaries as the agent of MNE's global expansion. Our model develops a taxonomy that not only explores the different internationalization strategies pursued by the headquarters but also the corresponding roles of foreign subsidiaries. Consistent with recent studies on Asian firms' rapid internationalization (e.g. Child/Rodrigues 2007, Mathews 2006), the paper focuses on the levels of internationalization beyond exporting at which firms are managerially engaged with foreign operations.

Third, we attempt to operationalize the model by using it to make sense of an empirical concrete case of Hyundai Motor Company (HMC). We show that HMC' rapid international expansion since the 1990s has

a path-independent feature due to the heterogeneous strategies toward subsidiary development. We further delineate peculiar roles played by HMC subsidiaries in pursuit of the headquarters' heterogeneous motives for global expansion. We also demonstrate that the HMC's approaches towards overseas subsidiary development shaped the pattern of knowledge flow within the company's global operations. The HMC case thus pinpoints the existence of a relationship between firms' internationalization strategies and subsidiary roles in relation to the patterns of knowledge flow. The paper not only advances a more realistic conceptual model of firm internationalization to understand the global expansion of firms—especially those emerging-market MNEs—but also contributes to the field of firm internationalization by linking its conceptualization with the literature on subsidiary roles and knowledge flows in MNEs.

The rest of the paper is organized as follows. By drawing upon existing theoretical approaches towards firm internationalization, Section 2 presents a new conceptual model and develops an Internationalization Matrix to illustrate the model. Section 3 further refines the model by developing the conceptual links between internationalization strategies and subsidiary roles in relation to the patterns of knowledge flow within MNEs. Following the description of research method in Section 4, Section 5 uses the model to examine the internationalization process of the Hyundai Motor Company. Section 6 concludes with a discussion on the broader implications of the new conceptual model.

Towards a new conceptualization of firm internationalization

The field of firm internationalization provides alternative theoretical explanations to the motives and the process by which firms expand operations overseas. This section first reviews the three broad approaches to firm internationalization and then combines them together to present a new conceptual framework.

Literature on firm internationalization

Against an environment of relatively closed national markets (Mathews 2006), early theorizing explained firms' international expansion in terms of their desire to exploit home-based firm-specific assets (FSA) in overseas markets (Rugman 2005). The theoretical underpinning of this asset-exploiting/market-seeking approach is the transaction cost-internalization theory of MNEs – due to market imperfections in the sale of knowledge and in the exchange of final and intermediate products involving asset-specific investments, a national firm possessing FSA is forced to 'close' the market across borders through internalization and become an MNE (Buckley/Casson 1976, Hennart 1982, Rugman 1981).

Recently, a number of attempts have been made to account for some unconventional internationalization processes. Luo and Tung (2007) presented a springboard perspective to account for internationalization of emerging market enterprises. Weerawardena *et al.* (2007) used the dynamic capabilities approach to conceptualize the internationalization process of born global firms. Drawing on a knowledge-based view of the firm, Gassmann and Keupp (2007) analyzed what enables small and medium biotechnology enterprises (SMEs) to internationalize early and rapidly. Drawing on international entrepreneurship literature, Zhou (2007) investigated the effects of entrepreneurial proclivity and foreign market knowledge on early internationalization of young entrepreneurial firms. While these recent studies contribute to the field of firm internationalization by enriching the theoretical underpinnings, they all share one thing in common, that is their explicit recognition that knowledge-seeking (rather than seeking additional markets for exploiting existing FSA) may be the central reason for becoming an MNE (Moore 2001). Hence these approaches may be bundled together and labeled as the asset-seeking approach or asset-augmentation approach (Li 2003, Yiu *et al.* 2007). While the asset-exploiting approach has been employed mainly to account for the internationalization of large and resource-rich Western MNEs, asset-seeking perspective has

been used to explain the international expansion of firms from emerging economies (Makino *et al.* 2002, Mathews 2002).

Based on the experience of Swedish multinationals, Johanson and Vahlne (1977) developed a stages model of the internationalization process. Starting with exporting via an agent, later establishing a sales subsidiary, and ending with direct investment in foreign production, firm internationalization is portrayed as a process of exploiting existing home-based FSA and the incremental build-up of new capabilities to overcome the liabilities of foreignness (Zaheer 1995). Thus the model captures elements of both asset-exploiting/market-seeking and asset-seeking. But the model differs from the asset-exploiting/market-seeking approach in two areas. First, it stresses the incremental and evolutionary character of the internationalization process. But the asset-exploiting approach is more static in that it adopts a transaction costs-comparative contracting framework to compare the relative efficiency of different internationalization strategies (e.g. international trade, international licensing, international subcontracting and FDI) to exploit their home-based FSA. Second, the stages model assumes the lack of knowledge (not just the possession of knowledge) as part of the trigger for incremental internationalization. On this second aspect, the model shares common concern with the asset-seeking approach. The model can therefore be used to explain not only internationalization that seeks overseas markets for firms' existing products and knowledge but also the development of international operations as a way to acquire knowledge. But the model also differs from the asset-seeking approach on two fronts. First, in the stages model, the purpose of the gradual accumulation of new resources and capabilities is to better serve the host market. While in the asset-seeking approach, knowledge gained from the host market is often used by the parent firms to facilitate their global operations (Cantwell *et al.* 2004). Second, the stages model stresses the incremental build-up of new knowledge and capabilities, while the asset-seeking approach emphasizes the rapid access and assimilation of knowledge-based assets often through acquisitions. The incremental nature of the stages model thus has limited predictive value for accelerated internationalization of firms from the emerging economies (Mathews 2006).

A new conceptualization

Despite their contributions, none of the above approaches alone can capture the internationalization process by the increasing number of late-comer MNEs. For example, while the asset-seeking approach explains well the expansion by East Asian MNEs in developed countries (Peng/Wang 2000), it fails to explain the equally rapid pace of expansion of the same companies in other developing countries, a process clearly not driven by technology-seeking. The 2006 World Investment Report shows that inflows of foreign investment into many least developed countries come primarily from other developing countries, notably East Asian economies excluding Japan (UNCTAD 2006). These late-comers seem to jump the stages to become MNEs without a clear growth path as described by any existing theoretical approaches, each of which explains only one dimension of a firm's overall internationalization process.

Combining the existing theoretical approaches, we develop a multi-dimensional conceptualization of internationalization, as depicted by the matrix below. The two-by-two matrix, named Internationalization Matrix (Figure 1), explicitly acknowledges that firms' internationalization strategies differ substantially across the four strategic contexts. First, we broadly categorize the drivers for firm internationalization into two dimensions on the vertical axis (market-seeking) and horizontal axis (asset-seeking). Second, overseas countries differ in their strategic importance as potential markets for exploiting home-based products and technology and in their capacity to provide valuable resources and assets (Ghoshal/Bartlett 1998). We therefore incorporate these two aspects in the analysis to create four cells, each representing a particular route to internationalization. The model suggests these distinctive routes (asset-seeking, market-seeking and hybrid routes) can co-exist. Firms expand into different regions with different motives and therefore adopt different internationalization strategies in their overseas operations. The matrix can also capture the evolution of firm internationalization strategies over time. Consistent with recent evidence that MNEs' activities around the world are largely region-based rather than global-based (Collinson/Rugman 2007, Rugman/Verbeke 2004),

this re-conceptualization captures the pluralistic character of internationalization especially by late-comer MNEs from rapidly developing Asian economies.

Figure 1. The Internationalization Matrix

Asset Exploiting/Market Seeking Level of Importance of local market High Low	1 Route 1: Market-seeking	2 Route 2: Hybrid
	4 Route 4 Hybrid	3 Route 3: Asset-seeking
	Low	High
	Level of local resources availability Asset Seeking	

The Role of Subsidiaries in Firm Internationalization

The conceptual model shows a diversity of the ways firms organize their operational units in different countries. Such a conceptualization has significant implications for our understanding of the role of subsidiaries in the process of firm internationalization. This section further refines the model by linking firm internationalization with subsidiary roles. First, we review the relevant literature on subsidiary roles. Second, we elaborate on the corresponding roles subsidiaries will play in pursuit of MNE headquarters' internationalization strategies. We also investigate how the idiosyncratic development of overseas subsidiaries will influence the patterns of knowledge flow.

Literature on subsidiary roles

Subsidiaries are defined as any operational units controlled by the MNE and situated outside the home country (Birkinshaw 1996). Many studies have contributed to a better understanding of subsidiary roles by developing a variety of typologies to reduce the complexity of MNE organizational reality (Harzing 2000). The “subsidiary role perspective” essentially argues that the roles of subsidiaries are dictated by the parent strategies (Ghoshal/Nohria 1989, Jarillio/Martinez 1990). A stream of literature that is most relevant to the present study classifies subsidiary roles based on knowledge flow. Based on the extent to which subsidiaries engage in knowledge transfer and whether subsidiaries are the provider or receiver of knowledge, Gupta and Govindarajan (1991) distinguish four types of generic subsidiary roles: *Local Innovator*, *Implementer*, *Integrated Player* and *Global Innovator*. Focusing on R&D subsidiaries, Nobel and Birkinshaw (1998) developed a different classification of *Local Adaptor*, *International Adaptor* and *Global Adaptor*. Corresponding to the two dimensions of The Matrix developed above, Ghoshal and Bartlett (1998) suggested four subsidiary roles dependent on the strategic importance of the local market and the level of local resources.

Despite their different emphases, these typologies are highly correlated with each other in terms of the patterns of knowledge flow they try to describe (Liang/Nicholas 2007). For example, *Local Innovator* in Gupta and Govindarajan’s typology corresponds largely to the *Local Adaptor* in Nobel and Birkinshaw’s typology, both referring to those subsidiaries that do not engage in substantial knowledge flows (both inflow and outflow) with HQ and peer subsidiaries. *Strategic Leader* in Ghoshal and Bartlett’s model largely corresponds to the Gupta and Govindarajan’s *Integrated Player* in that both types of subsidiaries engage in substantial knowledge transfer to other units and at the same time receive knowledge flows from other units (Harzing/Noorderhaven 2006). Similarly, *Implementer* (Gupta/Govindarajan 1991; Ghoshal/Bartlett 1998)

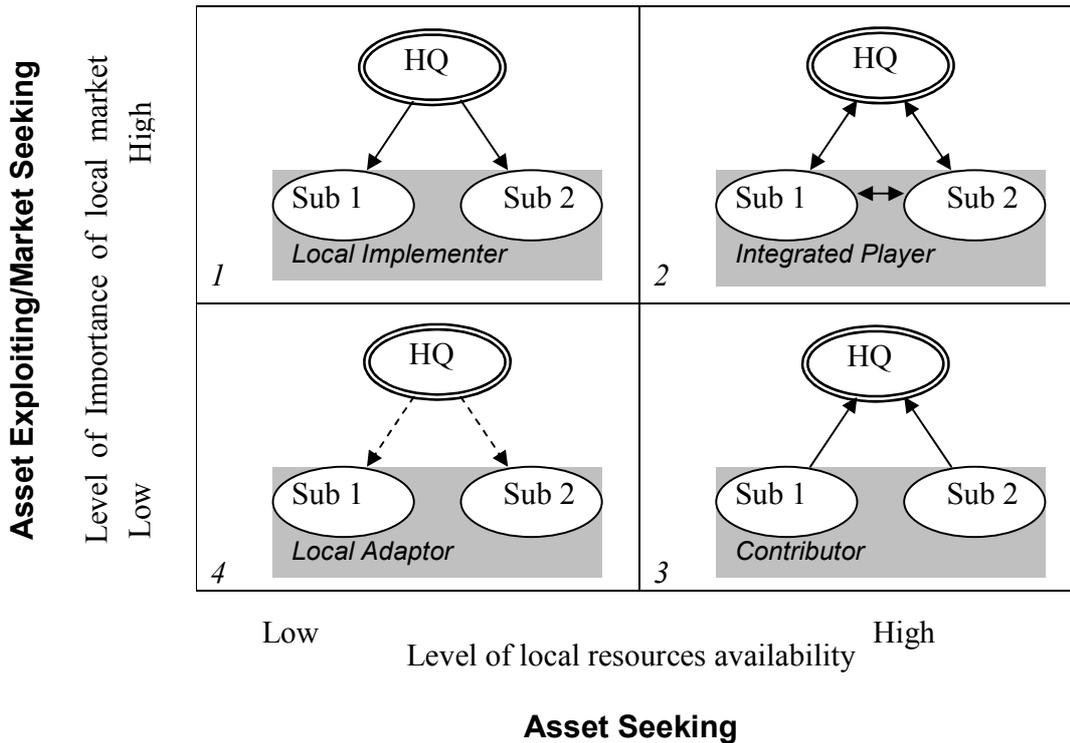
and *Local Implementer* (Birkinshaw/Morrison 1995) basically describe the same kind of subsidiaries that are dependent on knowledge inflows from either HQ or other subsidiaries but provide little knowledge to MNEs' other organizational units. Finally, *Contributor* in Ghoshal and Bartlett's typology can be seen as equivalent to *Global Innovator* in Gupta and Govindarajan's classification (1991), both engage in extensive knowledge transfer (outflow) but receive little knowledge inflow from other organizational units within MNEs.

Firm Internationalization and Subsidiary Roles

Though the typologies are highly correlated, there is a lack of conceptual integration (Harzing 2000, Macharzina/Engelhard 1991). In addition, the literature investigating the relationship between subsidiary roles and internationalization strategies is surprisingly scarce. To remedy the problems, we integrate these typologies into a new taxonomy to derive mutually reinforcing characteristics that are linked to the firm internationalization process. In Figure 2, we position the new taxonomy in the Matrix to examine how firms' heterogeneous internationalization paths will shape a diversity of subsidiary roles and the pattern of knowledge flow.

Cell 1 denotes a market-seeking route of internationalization. This route will lead firms to venture into overseas countries which provide an important market for firms to exploit home-based technologies and products. But the countries' importance as a source of new technology or other knowledge-related assets is relatively low. Therefore, the corresponding role the local subsidiary should play is that of *Local Implementer* (Birkinshaw/Morrison 1995), which requires substantial knowledge inflows from HQ but not vice versa (Gupta/Govindarajan 1991), depicted by an one-directional arrow.

Figure 2. The Firm Internationalization and Subsidiary Roles



Cell 2 represents an internationalization route pursuing a mix of market-seeking and asset-seeking. The host countries in Cell 2 often provide a strategically important environment for both market opportunities and knowledge source. Consequently, subsidiaries in these countries play the role of *Integrated Player*, not only receiving knowledge inflows from the HQ and other peer subsidiaries but also transferring knowledge to other units (Harzing/Noorderhaven 2006). We use the double-head arrow to represent the two-way knowledge flow between the HQ and the subsidiaries as well as among peer subsidiaries.

Cell 3 describes the pure asset-seeking approach towards internationalization. Because of the high level of resource availability (including financial, managerial and production assets), country operations in this cell are used by MNEs to develop new capabilities and/or augment the current resource-base. For example, emerging market MNEs use international expansion in developed countries as a springboard to achieve quick access and absorption of sophisticated technology or advanced manufacturing know-how (Luo/Tung 2007). Charged with the responsibility of tapping into local knowledge assets and becoming a

fountainhead of knowledge for other units (Gupta/Govindarajan 1991), the subsidiaries in this cell play the role of *Contributor* (Ghoshal/Bartlett 1998). The knowledge obtained in these countries may be passed on by the HQ to other country subsidiaries, but the direct transfer of knowledge from the *Contributor* to other peer subsidiaries is limited due to mostly region-based rather than global-based operations among large Asian MNEs (Collinson/Rugman 2007).

The host countries in Cell 4 do not present attractive market potential nor do they possess substantial useful local knowledge, or the local knowledge is too idiosyncratic to be of much use in other units (Harzing/Noorderhaven 2006). MNEs entering Cell 4 countries often for the purpose of trade-seeking, looking for locations that offer favorable production conditions such as low cost labor as well as additional market opportunities in the regional trading blocks (Dunning 1993). Acting as *Local Adaptors* (Nobel/Birkinshaw 1998), subsidiaries may need to transfer some basic management and production systems to the host countries for operations, but typically do not receive substantial knowledge inflow nor do they transfer knowledge to other units within the MNE's network. For these subsidiaries, they will produce matured products at low costs for exports to other countries, and only a small amount of knowledge inflow from the HQ is needed for local operations, as denoted by the one-direction dotted line in Figure 2.

Research method

The theorizing on firm internationalization is often supported by empirical observation of the process by which domestic firms expand overseas and become MNEs. However, studies using aggregate data tend to generalize findings that mischaracterize the true process of firm internationalization. Rich qualitative descriptions of important but under-explored phenomena can help identify compelling empirical insights that stimulate the theory development (Hambrick 2007). Though it is acknowledged that one of the most efficient ways to advance managerially-relevant knowledge is for important facts to be reported (Hambrick 2007), the

real experiences of accelerated internationalization by emerging-market multinationals are rarely documented. Following recent attempts to trace the emerging-market MNEs' trajectories for going global, the paper employs a case study approach to generate a depth of findings that would be unavailable in a larger quantitative study (Bonaglia *et al.* 2007). We provide a comprehensive analysis of Hyundai Motor Company (HMC) to shed light on the theoretical perspectives that explain the firm internationalization and to assess the extent to which the HMC experience can be explained by the proposed conceptual model.

We chose HMC for the case study for a number of reasons. First, MNEs from South Korea are not only among the largest in the developing world but also more successful than those from other developing countries.¹ In 2004, HMC was one of the five companies from developing economies that were listed in the top 100 largest non-financial transnational corporations (TNCs) measured by foreign assets and it was also among the best performers both in terms of sales-to-assets ratio and the sales-to-employment ratio (United Nations 2006). Second, the Internationalization Index (II), referring to the intensity of foreign operations according to the number of foreign affiliates, is the highest for TNCs from developing countries in the automobile industry (United Nations 2006). Insofar as automobile is a mature and increasingly global industry, we expect to see the emergence of new global competitors from other emerging markets. Therefore, an examination of HMC case is appropriate both to better understand internationalization strategies of the most prolific MNEs from the developing world and also predict how other emerging-market multinationals will pursue their international expansion.

Data was gathered mainly from interviews with current and past senior executives at the HMC headquarters. Following recent case study research on the similar topic (Bonaglia *et al.* 2007), we employed open-ended questions to gather factual data and solicit views and opinions concerning the motivations of internationalization, the roles of overseas subsidiaries and the patterns of knowledge flow. In total, xx

interviews were conducted with 12 HMC executives between 2003 and 2007. In addition, two interviews were carried out with prominent Korean academics (one sociologist and one economist) specialized in the business history of Korean automobile industry. Finally, supplementary secondary data was collected from previously published data in media reports and company brochures etc. (see Table 1 for the list of primary and secondary data source).

Table 1. The primary and secondary sources of the case study data

Primary data source		
Interviewees	Positions	
HMC Executives		
1	C. G.	Development Project Manager
2	C. M-S.	Deputy General Manager Corporate Product Planning & Strategy Division
3	J. S-S.	Senior Vice President International Business Operations
4	K. H-G.	General Manager Overseas Manufacturing Engineering Team
5	Kim, H. C.	General Manager North American Team, International Business Division
6	K. D-W.	General Manager Overseas Project Support, Corporate Procurement Division
7	K. Y. Y.	General Manager Electric Parts Development, Corporate Procurement Division
8	P. B. J.	former CEO and Vice Chairman, HMC
9	P. S.	Deputy General Manager, Corporate Marketing Division
10	S. K. A.	General Manager Global Command and Control Center
11	Y. K. Y.	Deputy General Manager, China Business Group
Korean Academics		
12	J. H. J.	Professor of Sociology, University of Ulsan
13	L. J-K.	Professor of Business Administration, University of Ulsan
Secondary data sources		
1	<i>Korea Economic Daily</i>	
2	<i>Seoul Economic Daily</i>	
3	<i>Maeil Business Newspaper</i>	
4	<i>Money Today</i>	
5	<i>Hyundai Motor Company News</i>	
6	<i>Hankyora Sinmun</i>	
7	<i>Motors Line</i>	

*For purposes of confidentiality, initials are used to stand for interviewees

The Case of Hyundai Motor Company

Hyundai Motor Company (HMC) was established in 1967, assembling American designed cars for local consumption. By 2005, the company had become the sixth largest automobile producer in the world (Treece 2006). HMC's global expansion can be divided into two stages: the export stage and the stage of foreign production. Until the 1980s, HMC's production was carried out mostly in Korea and only in the 1990s HMC began its overseas production. This section focuses on the second stage – the company's internationalization beyond exporting.

Within ten years between 1993 and 2002, HMC has extended its international reach beyond export to Canada, Turkey, India, China and the US. However, the Canada subsidiary was closed down within five years of its establishment (1989-1993) and there are scarce secondary data available. First hand data was also difficult to collect since all the executives we interviewed (except one) were not involved in the Canada venture. Therefore, we focus on the subsidiaries in Turkey, India, China and the US that are currently in operation.

It is notable that HMC's overseas productions concentrate in its home region. Two of the four countries in which the company has large scale operations are in Asia. As a result, 64 per cent of HMC's sales were in Asia as compared to 25 per cent in North America and 11 per cent in Europe in 2004 (Rugman/Oh 2008). Below, we assess how well the HMC's internationalization process can be explained by our framework first by identifying the internationalization strategies adopted by the headquarters and second by delineating peculiar roles played by the HMC subsidiaries in relation to the patterns of knowledge flow.

The internationalization strategies

In 1993, driven by the market-seeking purpose, HMC established a 50/50 joint venture in Turkey. In the early 1990s Turkey was regarded as a promising car market which HMC forecast would expand to over one

million units by 2001. HMC also wanted a strategic base in Turkey to make inroads into regional markets. Turkey had bilateral treaties with its neighbors in the Middle East and a preferential tariff or tariff exemption applied to Turkish exports to these countries (HMC 1992). Between 1995 and 1997, HMC constructed the completely knocked down (CKD) assembly plant with body, paint and assembly shops to produce the *Accent*, a small passenger car and the *Grace*, a minibus (interviewees 3, 8). However, HMC's foray into offshore production proved problematic. With a capacity of 60,000 units per annum, the Turkey subsidiary's total sales were less than 6,000 units in 1996 and less than 10,000 in 2001 and 2002 because of stagnant demand. (Interviewees 2, 9)

In 1996, HMC undertook another market-seeking international expansion with a green-field plant in India. The location of India between Asia and Europe was also seen as providing a strategic export base for HMC's low-priced vehicles to both continents (Ha/Cha 2002, Yoon 2002). The India plant was self-sufficient and fully-fledged, including production facilities, engine and transmission shops, press, body, paint and assembly shops, and a plastic extrusion unit. It started to sell the *Santra* in the mini passenger car segment (the premium compact segment in the local market) in 1998, and in 1999, the *Santra* was named the "Car of the Year" by the *Business Standard*, an influential Indian newspaper. In the mean time, it commenced the sale of the *Accent*, which was ranked second in terms of quality in the small passenger car segment in the local market (*Maeil Business Newspaper* 2000). As the second largest car manufacturer in India, the subsidiary remitted a US\$25 million profit dividend to HMC headquarters in 2002 (*Korea Economic Daily* 1999).

In 2001, following Chinese government's new Automobile Industry Policy, which encouraged Chinese manufacturers to cooperate with world-leading automobile manufacturers, HMC captured the opportunity and established a 50/50 joint venture with Beijing Automotive Holding Company (Lim 2003). The China subsidiary was highly successful. Expected sales of the *Sonata* in 2003 were 30,000 units.

Halfway through 2003, however, sales already reached 21,000 units with 23,000 secured orders. Consequently, the joint venture raised its sales target for 2003 from 30,000 to 50,000 units, and achieved 52,000, exceeding its break-even point (*Seoul Economic Daily* 2003). The joint venture focused exclusively on the Chinese market and expanded the body, paint, and assembly shops to produce the *Elantra* for the upper small car segment. Attaching a higher importance to the Chinese market than Turkey and India, HMC planned to increase the production capacity of Beijing-Hyundai to 200,000 units by 2005 (*Korea Economic Daily* 2003).

HMC's most recent overseas production facility was established as a green-field plant in the US in 2002, primarily to circumvent the anticipated difficulties in trade relations resulting from its rising exports to the American market. Of automobile manufacturers whose sales were over 200,000 units per annum in the US in 2001, only HMC was without a local production base in the North American Free Trade Area (NAFTA). Hence, HMC decided to construct an American plant (HMC 2002). In April 2002, HMC announced its decision to establish a new subsidiary Hyundai Motor Manufacturing America (HMMA) and commenced the construction of a plant in Montgomery, Alabama with an investment of US\$1.06 billion and began its production in May 2005 (Ward 2005). Though breaking the market entry barrier was a key driving force, the investment was also intended to take HMC to the next level of global production in which advanced technological know-how and innovation flow in both directions – between the headquarters and the US subsidiaries. One key distinguishing feature of HMC's investment in the US plant was its significant investment in the creation of North American R&D, engineering and design facilities to improve the company's technical expertise (HMC 2003). This was seen as necessary for HMC to become a global auto producer as the R&D and technological know-how acquired in the company's American operations can flow to HMC's plants in Korea and elsewhere. (Interviewees 5, 8, 9) Thus, the strategy for the US subsidiary mirrors a combination of market-seeking and asset-seeking.

In summary, HMC has adopted different internationalization strategies for its four overseas subsidiaries. It pursued a single-minded market-seeking strategy in China (Route 1), employed a mixture of market-seeking and asset-seeking internationalization for the US operations (Route 2), and expanded in Turkey and to a less extent India primarily for local markets but with some considerations of trading opportunities in nearby countries (Route 4). The HMC experience, however, does not reveal a pure asset-seeking strategy (Route 3) for setting up overseas subsidiaries.

Subsidiary roles and knowledge flow

While the HMC headquarters pursued heterogeneous strategies for international expansion, its subsidiaries also played corresponding roles in the process.

The Turkey Subsidiary

In the Turkey subsidiary, all the knowledge and technical know-how, including product design, production and process technology, administration of suppliers, and procurement techniques, were transferred from the HQ. But HMC introduced labour-intensive production technology and used less automated manufacturing processes than in its domestic plants, although, in the processes that most affected product quality, HMC used robots and automated welders. (Interviewees 4, 10).

The Turkey plant's parts localization level remained relatively low, with major components such as engines and transmissions imported from the headquarters in the form of CKD. Most of the local parts were bulky items, such as seats, door trims, carpets, and crush pads. In the JV arrangement, HMC is in charge of the suppliers, parts procurement, production and export (to East Europe and Middle East countries). The local partner provides inputs for domestic sales and marketing in Turkey. (Interviewees 1, 6). The CEO was selected from expatriates by the HQ and the management system has been transferred from the HQ

(Interviewee 1, 2, 6). There were no R&D facilities in the Turkey plant. All the products were developed in Korea with little product design knowledge transferred to Turkey. Parts of after-sale service and logistics were outsourced to Hyundai Mobis and Globis respectively (both affiliated companies of HMC).

Thus, the Turkey subsidiary relied on knowledge inflows from HMC HQ but the relatively simple nature of its operation required only the transfer of basic production and management systems. Nor does the subsidiary provide knowledge outflow. The Turkey subsidiary played the role of a *Local Adapter*. This knowledge flow pattern between HMC HQ and the Turkey subsidiary is illustrated by the dotted one-directional arrow in Figure 3.

The India Subsidiary

Like in Turkey, HMC pursued primarily a market-seeking internationalization in India with some considerations of trade opportunities in the neighboring Middle East countries. The India subsidiary relied on the transfer of basic management and production systems from the HQ to enable local operations, but did not receive substantial knowledge inflow as in the case of the Turkey subsidiary. The production technology is transferred from the HQ yet the amount of knowledge transferred was low. Like in Turkey, lower wage costs in India led HMC to choose labor-intensive production technology and reduce its investment in automation for the plant. Consequently, the automation rate of the India plant was only 20 per cent of that of Ulsan (where the five major Korean plants are located) and productivity was only one fourth to one fifth (Yoon 2002). Product design was conducted in the HQ and transferred to the India subsidiary. Compared to the Turkey plant, however, the India plant generated some local knowledge, with a small scale of R&D facilities taking care of the needs of Indian customers and incorporating the minor changes and modifications in the production of *Santro*.

Unlike in Turkey, HMC adopted a more proactive parts localization strategy for the India plant because of the high tariff on CKD imports. Currently nearly 90 per cent of total parts are locally supplied. However, as a wholly owned subsidiary, the technique and the system of the supply chain management have been transferred from the HQ through the expatriates from Korea to India. Also unlike the Turkey subsidiary, which did not play successfully the intended role of exporting base to the neighboring Middle East and East European countries, the Indian plant started exporting in 2000 to Indonesia and Algeria and later to Morocco, Nepal, and Sri Lanka (Interviewees 3, 9). In addition, the India subsidiary started to strengthen the role of a supply base for core components and low value-added products. For example, it started to export 50,000 engines and transmissions a year from mid-2004 to HMC's plants in Korea and other countries (*Hankyora Sinmun* 2003). Thus, compared to Turkey, there was a less degree of reliance of knowledge inflow from the HQ for local operation and a higher (though not substantial) degree of knowledge outflow to HQ and other organizational units. The India subsidiary is therefore best characterized as somewhere between the *local adaptor and local implementer*, as shown in Figure 3.

The China Subsidiary

Targeting exclusively the huge China market, the Beijing-Hyundai JV played a role of *local implementer* in that there were substantial knowledge inflows from HQ but not vice versa, as depicted by the one-directional arrow between the HMC HQ and the China subsidiary in Figure 3.

Product design and production technology were transferred from HQ to the China subsidiary. Although HMC also adopted a lower level of production technology, in product design, there exists a small scale of R&D facilities to research the needs of Chinese customers. Compared to Turkey and India subsidiaries, there is a higher degree of local knowledge generation in parts and components supply. HMC created a local network of high-quality parts suppliers for the Chinese joint venture and increased the level of parts localization at the joint venture plant to lower manufacturing costs. Localized parts comprised bulky

items with excessive transportation costs, modular and systemized parts to improve productivity, and items with excessive labor cost when produced in Korea (Interviewees 8, 11).

Because the management capacity of the local Chinese partner is limited and consequently the China subsidiary relied heavily on the HMC HQ for techniques and management systems related to procurement (Interviewees 6, 11). Like in Turkey and India, higher value-added activities such as after-sale service and warranty repair have been outsourced to Hyundai Mobis, and logistics handled by Globis, which resulted in the absence of direct knowledge flow between the HQ and the subsidiary in these areas (Interviewees 8, 11).

The US Subsidiary

Signaling HMC's strong commitment to the US market, three subsidiaries were established, with sales and marketing handled by Hyundai Motor America (HMA), production handled by Hyundai Motor Manufacturing Alabama (HMMA), and finance by HMFC (Hyundai Motor Finance Co.).

In order to achieve competitive advantage over the Toyota *Camry* and Honda *Accord*, the most popular models in the US, HMC focused on a product localization strategy which involves improving the adaptability of its new products to the American market (*Money Today* 2002). An independent sales and marketing subsidiary, Hyundai Motor America (HMA), was established to facilitate the development of the successor models to the *Sonata* and the *Santa Fe*, with new platforms and engines, and with transmissions with higher power and performance. Other management systems and decisions (for the upper levels) are led by the HMC HQ. Yet, the minute details for the local market are decided by the HMA to ensure the adequate market information feed into the production of HMMA. (Interviewees 1, 5, 6) Thus, substantial market information and knowledge flow between the US marketing and production subsidiaries as well as between the US subsidiaries and the HMC headquarters.

The production plant (HMMA) in Montgomery, Alabama is fully integrated, with engine, press, body, paint, and assembly shops, and several testing facilities. Producing new versions of the *Sonata* and *Santa Fe* models, the plant started with a production capacity of 235,000 and expanded to 300,000 units per annum (*Hyundai Motor Company News* 2002). In contrast to the earlier ventures in Turkey, India and China, the Montgomery plant applied the latest production technology. For example, the newest painting technology Rotation Deeping, which overturns the body during the process of painting and hence allows air pockets to be removed, was first used in HMMA. Enabling the production of four models, the production flexibility of the body shop in the Montgomery plant was substantially higher than those of major global competitors.ⁱ The productivity of the body shop is 60 per cent higher than that at Asan, HMC's top plant in Korea, while that of the paint shop is eight per cent higher. (HMC 2002) However, the technology level of the plants in Korea was lagging behind not because HMC did not possess the state-of-art technology at home but because the plants were simply too old – the main plants in Ulsan were built more than 30 years ago. When the new plants were constructed in the US, the HMC quickly deployed the most advanced technologies and that implies the substantial transfer of technologies from Korea to the US. For example, HMC established simulation assembly lines in its R&D center in Korea as a training facility for key American production engineers and workers (Chappell 2005).

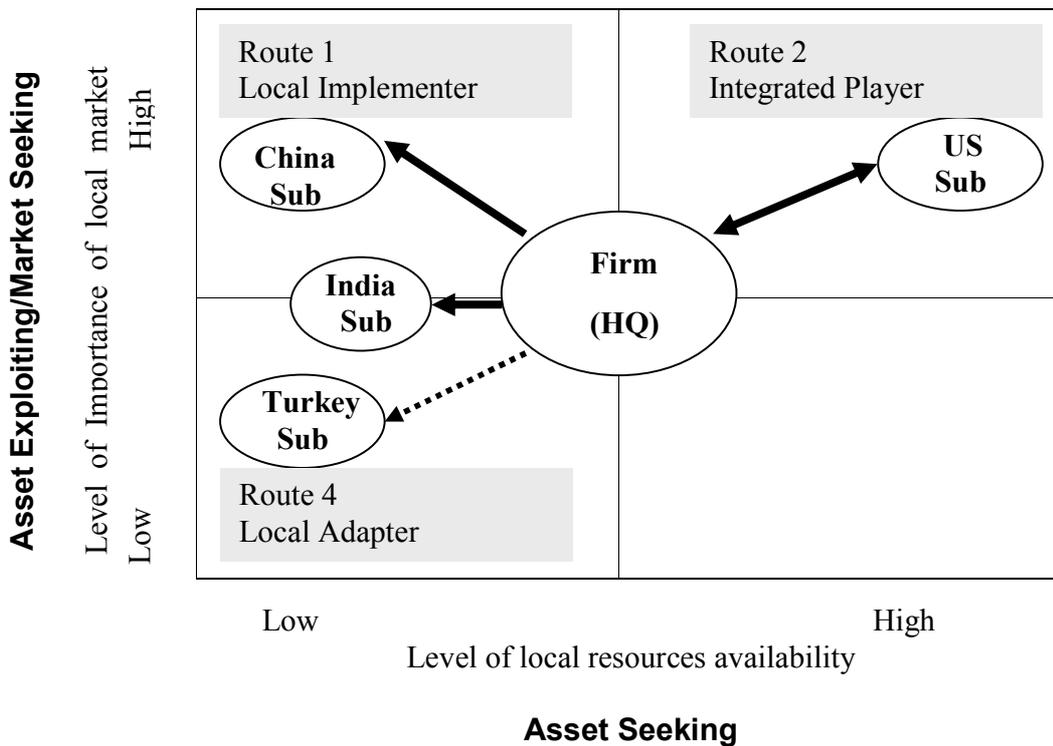
On the other hand, in contrast to the other overseas subsidiaries where know-how flow mainly in one direction from the headquarters to the subsidiaries, HMMA was able to establish a system with product and know-how flows in both directions - between the headquarters and the US subsidiary. For example, while located within HMA, the US R&D Centre need to report to the R&D division of the HQ in Korea, reflecting elements of a typical matrix structure that allows for complex information flows between headquarters and subsidiaries as well as across the subsidiaries. The US R&D Centre was charged with the responsibilities of acquiring new technology and testing new products, the outcomes of which were not only used by the local

plant but also reported to the HQ. Similarly, the US R&D Centre supplies the technology related to new materials (e.g. plastics) and the next generation of fuel and battery to the HQ (Interviewees 4, 7, 10).

In addition, every year, the US R&D centre joins the R&D centers in Europe and Japan in two meetings, during which they present and exchange their existing and newly acquired technology. Through these meetings, the US subsidiary is able to absorb, for instance, the new Diesel Engine technology and Diesel Particle Filter developed in HMC's R&D centre in Europe and the advanced safety technology originated from HMC R&D facilities in Japan. Thus, the US subsidiaries have been engaged in not only the vertical two-way flow of knowledge between themselves and the headquarters but also the lateral know-how exchange with peers in other parts of the world. This is not surprising given the strategic importance of the US both as a market and knowledge source and consistent with the headquarters' mixed strategy of market-seeking and asset-seeking for the US establishment. Consequently, the US subsidiaries played a role of *Integrated Player*, engaging simultaneously in both the exploitation of HMC's existing home-based resources and capabilities and the seeking of new technological assets, as depicted by the double-head arrow between the HMC HQ and the US subsidiaries.

In summary, HMC's subsidiaries played distinctive roles in pursuit of the headquarters' internationalization strategies. HMC's heterogeneous strategies toward international expansion largely define the corresponding roles of its four major overseas subsidiaries, which in turn shape the knowledge-flow patterns within the company's global operations (see Figure 3). The heterogeneous process of its internationalization is also consistent with the company's portfolio management of its products, the technology level of which is higher in the US subsidiary than in Turkey and India operations for example. The HMC case thus pinpoints the existence of links between firms' internationalization strategies and subsidiary roles in relation to the patterns of technology flow.

Figure 3. The HMC case: Internationalization Strategies and subsidiary roles



Conclusion

Since the 1990s, the pace of technological and institutional change has quickened, making the global economy more and more closely interlinked (Mathews 2006). Against the new global business environment, instead of increasing foreign involvement incrementally, many latecomer East Asian MNEs accelerated their internationalization process in both developed and developing countries. However, the current theoretical approaches have been used largely in isolation and fail to provide a comprehensive explanation for the character of the rapid internationalization beyond exporting by these latecomer MNEs. In this paper, we synthesize existing approaches into one framework that characterizes firm internationalization as a heterogeneous process of strategic development of subsidiaries in different countries or regions. We further refine the model to link internationalization strategies with subsidiary roles in relation to knowledge flow. We illustrate our conceptualization by developing an Internationalization Matrix, which serves both a

descriptive model that allows us to examine the idiosyncratic paths of firm internationalization and a prescriptive model that provides guidance regarding strategies for managing internationalization process. The model can therefore guide future empirical work as well as practice.

The empirical evidence from Hyundai Motor Company (HMC) demonstrates the overall explanatory and predictive power of our conceptual model. We show that different theoretical perspectives, taken in concert, offer complete explanation of HMC's accelerated international expansion beyond exporting since the 1990s. Through largely independent paths towards the establishment of overseas production bases, HMC has extended its international reach beyond export to four countries within ten years and achieved regional rather than global status. The HMC experience is consistent with the regional character of Asian MNEs (Collinson/Rugman 2007) in general and Korean multinationals in particular (Rugman/Oh 2008). Thus our study provides the much-needed empirical case support for the emerging regional perspective of MNE strategies (Rugman/Collinson 2008, Rugman/Verbeke 2008, Rugman, 2005).

The case also offers important insights into the broader relationship between internationalization and subsidiary roles. We show the match between HMC's internationalization strategies at the headquarters and the corresponding roles of the subsidiaries as depicted in our conceptual model. This is consistent with previous research that argues MNE subsidiaries operate in accordance with the intended roles as required by the headquarters, especially during the early period of their internationalization (Mintzberg 1978, Birkinshaw/Hood 1998).

The HMC case, however, did not confirm the pure asset-seeking approach in the company's internationalization process. Although it is also often argued that internationalization strategies by emerging-market MNEs are designed to enhance their resource base rather than to exploit existing assets (Mathews 2006), we caution the empirical findings based on aggregate data for the existence of a pure asset-seeking

approach (Peng/Wang 2000). The implication is that the exclusive reliance on any single theoretical explanation may mislead our understanding of the internationalization process in a concrete empirical case. Correspondingly, no subsidiary role of *contributor* was found in the case of HMC. To the extent this subsidiary role has become more important as MNEs move towards a transnational model (Harzing/Noorderhaven 2006), HMC is rather like other Korean MNEs that are more home-region oriented (Rugman/Oh 2008) and does not show a transnational mentality (Bartlett/Ghoshal 1989). This is consistent with the regional character of the early and limited internationalization of Asian multinationals (Collinson/Rugman 2007).

In summary, the paper contributes to the field of firm internationalization in three ways. First, we present a new conceptual model that combines existing theoretical perspectives to understand and predict rapid internationalization of the latecomer MNEs from emerging markets. Second, we establish conceptual links between firm internationalization and MNE subsidiary roles in relation to patterns of knowledge flows. Third, in elaborating our model, we provide a comprehensive analysis of a real-world experience of one of the most prolific MNEs from emerging economies, revealing the insights related to the true process of firm internationalization that are often buried in studies based on aggregate data.

Endnotes

1 South Korea is still classified as a developing country by the United Nations despite its OECD membership.

2 This includes the market share of Kia, which was merged with HMC after the 1997 Asian financial crisis.

3 According to the only interviewee who was involved in the establishment of Canada subsidiary, the decision was completely driven by the mounting pressures for restrictions on HMC's growing imports to North America since the 1980s. The green-field entry was rush and ill-conceived without the support of a local knowledge base. For example, the *Sonata* was developed for Canada and the US market. However, before that the HMC's experience was solely within the small car segment and lacked sufficient knowledge of the North American medium passenger car market. The product development was conducted at the headquarters with little consideration about the needs for customization. Except for a larger engine (3.0 liters as opposed to the smaller 2.4 liter Korean model), the company did not adapt the design of the *Sonata* for North American customers. As a result, HMC failed to satisfy customers' expectations in many areas such as interior design and ride performance.

4 Worldwide automobile manufacturers usually produce two models in their flexible body shops.

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