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STRENGTHENING PRODUCTIVE CAPACITIES IN EMERGING ECONOMIES THROUGH INTERNATIONALISATION: EVIDENCE FROM THE APPLIANCE INDUSTRY

by

Federico Bonaglia and Andrea Goldstein

Research area: Policy Coherence and Productive Capacity Building



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PREFACE

The emergence of new sources of international capital flows is one of the characterising features of the current phase of globalisation. That countries that were hitherto only receiving international investment are now home to multinational enterprises testify to the fact that globalisation is not a one-way street. These developments are generating social and political anxieties in OECD countries. Knowledge about this relatively new phenomenon, however, remains quite scarce and the risk of taking uninformed decisions based on scanty and shaky evidence is correspondingly high. Moreover, as multinational enterprises from developing countries now start to invest in other developing countries, the impact of their behaviour on the host economies becomes by itself worth of additional analysis, as it bears important consequences both for the private sector and policy makers in developed and developing countries alike.

This paper, which is part of the on-going Development Centre's programmes of work on export diversification and productive capacity-building in developing countries, contributes to this debate in two ways. Firstly, it presents an analytical framework for better understanding the internationalisation process of developing-country enterprises. Secondly, it applies that framework to analyse the experiences of three such enterprises. Although less studied than other industries that are often portrayed as epitomising globalisation – car, electronics or apparel, to name a few – manufacturing of household appliances is also increasingly moving towards emerging economies, either through off-shoring processes from OECD-based companies, or through the emergence and rapid internationalisation of original brand manufacturers in emerging countries themselves.

The experiences reviewed here contribute towards a better understanding of the varieties of corporate strategies and of the drivers behind the internationalisation process. A staggering and distinctive characteristic of this new wave of internationalisation is the speed of the process and the ability of the latecomer firm to leverage on the opportunities for learning offered by a more interconnected economy. This phenomenon challenges the traditional view held about internationalisation strategies, based on ownership, location and internalisation advantages. Latecomer firms from emerging economies, the authors claim, internationalise to capture resources and build their competitive advantages – a reversal of the traditional perspective.

The successful stories described here, while providing some encouraging evidence on the ability of developing-country firms to upgrade and expand their operations, also raise the question of sustainability. To what extent these strategies are sustainable and replicable by other firms? What upwards and downwards linkages do they establish with firms in the recipient economy? What are the implications of their behaviour for domestic firms in the home country,

in terms of adoption of best practice technology and organisation structure? How effective are they proving as instigators of changes? Is there any notable difference in their behaviour compared to those of traditional OECD enterprises? Are these firms adopting entirely new strategies? Can't it be that what we are currently observing is simply a transitory phenomenon, where emerging multinationals, leapfrogging the traditional steps, will eventually mature and converge towards a more conventional pathway? This paper and companion analysis being undertaken at the Development Centre on the internationalisation strategy of firms from emerging economies and other developing countries aim at providing some enlightenment to these crucial issues.

Prof. Louka T. Katseli Director OECD Development Centre July 2007

RÉSUMÉ

L'émergence dans plusieurs secteurs industriels d'une « deuxième vague » d'entreprises multinationales (EMN) issues de pays en développement constitue une des caractéristiques de la mondialisation. Contrairement à leurs prédécesseurs, ces nouvelles EMN n'ont pas attendu d'être une grande structure pour s'internationaliser, bien souvent elle se sont internationalisées à travers une stratégie de négociation directe d'entreprise à entreprise. Beaucoup d'entreprises se développent avant de s'internationaliser. Au contraire, les EMN s'internationalisent pour s'agrandir. Ce schéma interpelle car, si confirmé, il démontre que les entreprises des pays en développement ont eu une approche singulière à l'internationalisation. L'autre hypothèse intéressante consiste à d'étudier dans quelle mesure ces entreprises, à l'origine fournisseurs des entreprises établis dans les pays développés, ont su tirer profit de leur statut de « retardataire » pour accélérer leur internationalisation.

Ce rapport explique comment des EMN émergents pourraient être amenées à suivre des schémas tout à fait différents pour intégrer la compétitivité mondiale, ou du moins s'en rapprocher. C'est une analyse qui démontre en particulier comment trois EMN « retardataires » (latecomers) ont mené à bien leur croissance mondiale par le biais d'une internationalisation accélérée, accompagnée d'une innovation stratégique et organisationnelle. Haier (en Chine), Mabe (au Mexique) et Arçelik (en Turquie) ont émergé comme des dragons multinationaux dans l'industrie de produits électro-ménagers (aussi dénommés « marchandises blanches »). Il s'agît d'une chaîne de valeurs mondiale, du type chaînes « mues par les producteurs », qui se caractérise par technologie mûre et une délocalisation rapide vers les pays en développement, où non seulement les coûts de pénétration de marché sont inférieurs, mais où le taux de croissance de la demande est aussi plus élevé, créant ainsi un avantage considérable pour ces EMN retardataires.

Haier, Mabe et Arçelik ont accru leur partenariat stratégique avec des EMN de pays plus développés pour améliorer leur niveau de production, de la conception de produits simple à de nouvelles lignes de produits à travers un design, une image de marque et une stratégie marketing qui leur est propre. La recette de leur réussite réside dans leur capacité d'aborder la concurrence mondiale comme une opportunité de développer des compétences, s'introduire dans des secteurs industriels plus rentables et adopter des stratégies visant à transformer le statut de retardataire en source d'avantage compétitif. Par ailleurs, leur expérience prouve qu'il existe diverses stratégies et trajectoires pour s'internationaliser.

ABSTRACT

The emergence of a "second wave" of developing-country multinational enterprises (MNEs) in a variety of industries is one of the characterizing features of globalisation. These new MNEs did not delay their internationalisation until they were large, as did most of their predecessors, and often become global as a result of direct firm-to-firm contracting. Many grow large as they internationalise; conversely, they internationalise in order to grow large. This is a striking pattern which, if confirmed, indicates that enterprises from developing countries have pursued distinctive approaches to internationalisation. It is a further interesting hypothesis to investigate to what extent such firms, born as suppliers of established incumbents, have leveraged on their "latecomer" status to accelerate their internationalisation.

This paper documents how emerging MNEs may follow quite different patterns to reach, or at least approach, global competitiveness. In particular, it investigates how three latecomer MNEs pursued global growth through accelerated internationalisation combined with strategic and organisational innovation. Haier (China), Mabe (Mexico) and Arçelik (Turkey) emerged as *Dragon Multinationals* in the large home appliances (so-called "white goods") industry. This is a producer-driven global value chain, characterized by mature technology and rapid delocalisation to developing countries, where not only input costs are lower, but demand growth rates are higher – giving a decisive latecomer advantage to these MNEs.

Haier, Mabe and Arçelik leveraged their strategic partnership with established MNEs to upgrade their operations, evolving from the production of simple goods, into new product lines developed through their own design, branding and marketing capabilities. The recipe of their success has been the ability to treat global competition as an opportunity to build capabilities, move into more profitable industry segments, and adopt strategies that turn latecomer status into a source of competitive advantage. At the same time, their experiences show that there are many strategies and trajectories for going global.

JEL Classification: F23, M2

Keywords: Internationalisation; global value chains; emerging economies; multinational enterprises; latecomer; white goods; Haier; Arcelik; Mabe.

INTRODUCTION

"Despite the centrality of the business firm to economic growth and economic development, development economics has given relatively short shrift to the firm as the agent of economic development" (Teece, 2000, p. 105).

The contribution of inward Foreign Direct Investment (FDI) and Multinational Enterprises (MNEs) to development has long been debated in both academic and policy circles (e.g. Moran *et al.*, 2005). The positive impact of FDI on the host economy, which mainly works through the adoption of new technologies and knowledge transfer, is recognised as depending on the host economy's absorptive capacity. Absorptive capacity reflects, *inter alia*, the stock of human capital, technological capabilities and financial market development of the host economy¹.

Less explored are the questions of how firms from developing countries and emerging economies manage to internationalise, including through outward FDI (OFDI), and the implications of OFDI on their performance and, more broadly, on their home country. Indeed, large-scale OFDI from developing countries is a recently new phenomenon (UNCTAD, 2005). Aykut and Goldstein (2006) have discussed the developmental consequences of the emergence of "Southern MNEs" and more specifically South-South FDI flows.

The analysis of what drives firms to internationalise through FDI and the implications for the home economy has focussed almost exclusively on firms from industrialised countries (see Box 1). This paper aims to investigate two broad questions pertaining to the internationalisation trajectory of Southern MNEs. Firstly, what factors explain the successful internationalisation of firms from developing countries? Secondly, what lessons can be derived from these successful experiences for other firms in these countries? To what extent is the

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^{1.} Absorptive capacity is directly related to the level of economic development of the host country. Since these characteristics are also amongst the key determinants of FDI inflows, there might be a vicious circle, where more advanced economies not only receive more FDI, but also benefits the most of it. Less advanced economies would receive less FDI and its contribution to growth would be smaller. Since MNE can concretely contribute to improving some key feature of the absorptive capacity (e.g. through training of the labour force), there is a strong case for policies to provide incentives to this end, to transform the vicious circle into a virtuous circle. See Miyamoto (2002) for further discussion.

experience of the still few companies from the developing world that have become MNEs useful (replicable) for other firms struggling to move up the value-added and technology ladder?

Box 1. Outward FDI: Impact on the home economy

The impact of outward FDI on the home economy can be modelled as the combination of (i) a "substitution/complementarity effect" on home employment levels and skill-composition and (ii) a "spillover effect" working through productivity improvements from the foreign affiliates to the parent company and from the parent company on other enterprises in the home economy.

- (i) While overseas production may reduce the demand for domestic labour, it can also lead to enhanced competitiveness and expand exports and employment. OFDI can enhance domestic exports through a variety of channels. First, foreign production may have important demand enhancing effects in host countries by creating local goodwill and customer loyalty. Second, when the production process is fragmented into stages and only downstream assembly is transferred abroad, then the demand for parts and components by the newly-established assembly plant can be met by exports from suppliers in the home country. Third, affiliate production established by a parent firm in a host country may serve as an export platform to third countries in a particular region. These output effects might well compensate the possible reduction in domestic production (and employment) associated with overseas investment. OFDI might also induce some changes in skill composition of employment in the parent company, e.g by relocating labour-intensive stages of production abroad while maintaining the skill-intensive ones (including supervision and coordination of foreign affiliates) in the home country.
- (ii) Dynamic, learning effects from investing abroad on the parent company can also be relevant, as can be proximity or spill-over effects from the MNE on other home-country domestic firms, being them suppliers/clients (vertical spillovers) or competitors (horizontal spillovers). These effects can work through imitation and adoption of best technological or organisational practises. Although possible in theory, there is so far a lack of empirical assessment about the spillover effects of OFDI in the home country context. The existing studies mostly focus on the own-firm productivity effects of OFDI or reverse knowledge spillovers, e.g. through technology sourcing.

Empirical assessments of the impact of OFDI on the home economy have predominantly focused on multinational employment (both level and composition) in the home country. Results vary depending on the type of FDI (horizontal or vertical) and the level of development of the destination country. Barba Navaretti and Venables (2004) and Lipsey (2002) provide an exhaustive survey of the literature.

Sources: Fukasaku (2002); Lipsey (2002); Vahter and Masso (2006).

We focus on emerging-market multinational enterprises (EM-MNEs) in the white goods industry – a mature industry where latecomer MNEs might be able to make their mark through initial Original Equipment Manufacturer (OEM) contracts leading to internationalisation *via* various kinds of partnerships². We document the rise of Mabe, Arçelik, and Haier (from Mexico, Turkey, and China, respectively), as successful examples of latecomer firms that managed to upgrade their operations, evolving from the production of simple goods, generally as OEM subcontractors, into new product lines developed through their own design, branding and marketing capabilities. One hypothesis to be explored is that these firms did not delay their internationalisation until they were large, as did most of their predecessor MNEs from North

^{2. &}quot;White goods" include washing machines, fridges, dishwashers, ovens, and cookers. Major household appliances used outside the kitchen, such as video and audio systems, are known as "brown goods".

America, Europe or Japan. Instead, many of the enterprises from developing countries grow large as they internationalise; conversely, they internationalise in order to grow large. This is a striking pattern which, if confirmed, indicates that enterprises from developing countries, both those that are still small and those that are growing large, have pursued distinctive approaches to internationalisation.

It is a further interesting hypothesis to investigate to what extent such firms have made use of the interconnected character of the globalizing economy in order to accelerate their internationalisation, through both acquisition and strategic alliances to acquire new brands, technological assets and other sources of competitive advantage that expand and diversify their competence base. In particular, and to the extent that most current internationalising firms from developing countries were born as suppliers of established incumbents, they may have used their arrival as "latecomers" on the global stage (Hobday, 1995) to capture advantages associated with being late, such as the new possibilities for linkage and leverage of knowledge and market access available through globalisation³.

We first present the outlines of a framework for understanding EM-MNEs' internationalisation process – as grounded in the extensive available literature on FDI and now-incumbent MNEs. We then sketch the main characteristics of the global white goods industry, to highlight how market, technology, and regulation dynamics may be opening up new opportunities for incumbents. A case study approach is used to shed light on the factors explaining the success of the three firms and link such features to the theoretical framework. We conclude with some digressions on the extent to which the experience of these firms is useful (replicable) for other firms struggling to move up the value-added and technology ladder.

^{3.} The "latecomer firm" is a resource-poor firm (both in terms of technology and market access) seeking some connections with the technological and business mainstream (Mathews, 2002). For a latecomer perspective on internationalisation of Chinese firms, consistent with our usage, see Child and Rodrigues (2005).

I. INTERNATIONALISATION BY EMERGING-MAKRKET MNE

The rise of Multinational Enterprises (MNEs) from emerging economies, so-called emerging-market MNEs (EM-MNEs), is one of the most interesting outcomes of globalisation. Recent years have seen the rise of a growing number of MNEs in a variety of industries, from economies as diverse as Brazil, China, Korea, India, Malaysia, Mexico, Russia, Singapore, Chinese Taipei, and Turkey. These firms are part of a "second wave" of developing-country MNEs, after the "first wave" documented by such scholars as Kumar and McLeod (1981), Wells (1983) and Lall (1983). Second-wave MNEs appear to be driven directly by firm-to-firm contracting in a global setting – as would be expected in an epoch of multiplying global inter-firm connections that offer more possibilities for firms (even quite small firms) to be drawn into the global economy. Their contemporary internationalisation (in terms of rising ratios of sales, assets, and employment abroad) may be said to be one of the notable outcomes of globalisation: just how EM-MNEs may utilize the multiple connections of the globalised economy to gain a distinctive advantage vis-à-vis incumbents, remains a topic to be explored in depth.

The vertical fragmentation of manufacturing production into discrete activities that can be performed in different locations by different firms is possibly the most distinctive feature of the contemporary global economy. This fragmentation has multiplied developing countries' links with global production networks for a wide range of products. The global value chain (GVC) phenomenon – which is associated to the reduction in transport costs and trade barriers, as well as advances in technology, mainly though not exclusively the diffusion of information and telecommunications technologies (ICT) – has been widely documented in the case of car and apparel (e.g. Memedovic, 2005). Virtually all consumer products sold by developed-country retailers today are made entirely or to a significant extent in offshore factories located in developing countries (Feenstra, 1998; Gereffi and Sturgeon, 2004). Even products that require precision manufacturing, like hard disk drives and many kinds of semiconductors, are becoming "high-tech commodities" made in capital-intensive facilities in Southeast Asia and elsewhere.

For firms in developing countries, manufacturing for others initially allowed them to capitalise on their cheap labour while avoiding the expense and risk of marketing, distribution and research and development (R&D). However, expectations of a fast upgrading of such firms, partly due to the "death of distance", have proved naïve. Not only do economic activities continue to concentrate in given locations, but the contribution of large firms to innovation, as well as to the branding and marketing of products, is seemingly becoming larger, as suggested on a global scale by the experience of a number of OECD economies such as Finland, Sweden, and Switzerland.

This however does not mean that, as countries such as Brazil, China, India, Mexico or Turkey are emerging as industrial powers in their own right, the best of their consumer-goods firms may not also start to outgrow this supporting-actor role. Growth in their home markets over the past few years has been extraordinary. A few firms headquartered in developing countries and transitional economies have made the transition from OEMs selling their own products with a foreign firm's brand affixed, to Original Design Manufacturers (ODMs), and a much smaller number have further progressed into Original Brand Manufacturers (OBMs). The sources of corporate strength have gone from the ability to minimise cost for a given output level, to knowing "how to learn and how to combine and recombine assets to establish new businesses and address new markets" (Teece, 2000, p. 106).

But the "upgrading pattern, although straightforward in concept, is often far from smooth in practice", as companies discover that they are now increasingly exposed to volatility in consumers' preferences, that the competencies required to conquer and maintain brand recognition are intimately different from those associated to subcontracting work and post-architectural, detailed design, and that developing own brand products imperils their status as contact manufacturers (Lester and Sturgeon, 2004).

Recent attempts by MNEs from emerging economies to expand through M&A in OECD countries have spurred both interest and anxiety. Understanding what drove their successful internationalisation, to what extent their experiences are sustainable and replicable, and the implications of their behaviours on the host economies is a highly relevant, though underexplored, area of research⁴.

While the conceptual and theoretical frameworks developed in the international business literature to account for outward FDI and the sustainability of MNEs are well established, the nature of the strategies that these latecomer MNEs have pursued, and their specificity compared to those developed earlier by now-incumbent MNEs, remains a relatively neglected topic (Bartlett and Ghoshal, 2000). The ownership/location/internalisation (OLI) theory is squarely based on the experiences of large, predominantly Anglo-American, successful international firms that can easily find the resources and the capabilities to expand internationally if they wish to do so. Dunning (1981; 1988) brought together the advantages that international firms drew from extending their operations abroad, in terms of three characteristics or sources. There was the potential advantage derived from extending their proprietary assets abroad, such as brands or proprietary technologies, bringing greater fire power to bear on their domestic competitors in host markets (the "ownership" advantage). There was the potential advantage of being able to integrate activities across sectors of the world with very different factor costs and resource costs (the "location" advantage). Finally there were the potential advantages derived from building economies of scale and scope through internalizing activities spread across borders that would otherwise be dispersed between numerous firms (the "internalisation" advantage).

As contrasted with the case of the so-called Uppsala school (Petersen and Pedersen, 1995), the path of expansion is slow and incremental, with frequent loops of experimental learning. When they decide to invest overseas, the new breed of MNEs rarely have at hand resources such

^{4.} See Goldstein (2007) for an exhaustive discussion of the main issues.

as proprietary technology, financial capital, brands, and experienced management. Moreover, for EM-MNEs the luxury of waiting does not seem to exist anymore as protection at home is eroded by market liberalisation, time-to-market is reduced, and production runs must increase continuously to control costs⁵.

Dunning and other adherents to the OLI framework have sought to adapt it to accommodate striking developments such as the rise of international mergers and acquisitions, the rise of international joint ventures and collaborative alliances, and not least the rise of fast expanding "newcomers" that appear to lack all the trappings traditionally associated with the MNE (Dunning, 1995; Rugman and Verbeke, 2004). Still, the striking feature of internationalisation by latecomer MNEs from emerging economies is that they do not have these OLI advantages to start with. They have to internationalise, in new conditions created by globalisation, in order to capture the resources needed. They internationalise in order to build their advantages – a reversal of the traditional perspective. Thus the considerations that apply to international expansion in the pursuit of resources (and customers) not otherwise available can be expected to be quite different from those that apply to expansion which is designed to exploit existing resources.

Utilizing a perspective that focuses on firms' resources in an international setting (Peng, 2001) we adopt an approach to internationalisation that views it as an increasing level of integration within the global economy. We also draw on recent studies, centred on the competence-based theory of the firm, which have argued that the nature of the competence creation process has changed. The emergence of international production networks has favoured a closer integration of the process of capability accumulation, so that the internationalisation strategy becomes heavily intertwined with technological and product diversification strategies (Cantwell and Piscitello, 1999). Analysing how EM-MNEs master this process can therefore also offer interesting insights into the broader debate on the relationship between corporate diversification and internationalisation.

One interesting facet of the internationalisation of EM-MNEs is in the way that they use and leverage various kinds of strategic and organisational innovations in order to establish a presence in industrial sectors already heavily populated with world-class competitors. In doing so, they benefit from a narrow window of opportunity available to them as latecomers. Firstly, they all internationalise very rapidly – so accelerated internationalisation is a distinctive feature that calls for analysis. Secondly, they have been able to achieve this accelerated internationalisation not through technological innovation, but through organisational innovations that are well adapted to the circumstances of the emergent global economy, providing linkages with incumbents in innovative ways. They have been able to implement these approaches through strategic innovations that enable them to exploit their latecomer and peripheral statuses to advantage (Mathews 2002; 2006). Thirdly, these firms have often invested in brand-building, to upgrade their status to branded manufacturers, and build or acquire a key competitive asset. A closely related question is, of course, the sustainability of this process.

^{5.} As Haier's CEO noted, "Margins are low here. If we don't go outside, we can't survive," quoted in "Haier's purpose", The Economist, 18 March 2004.

Accelerated internationalisation

In both advanced and emerging economies, accelerated internationalisation is a novel feature of the global business economy (Schrader et al. 2001). Latecomers in particular internationalise very rapidly, by making use of prior international connections, leveraging their own expansion through making use of these – as in the case of expanding abroad as contractor to an existing MNE, or being carried by a global customer into new markets (Andersen et al. 1997). It was as if these firms executed a "gestalt switch" from domestic to multinational (regional, and in very few cases, global) player – even if their actual pattern of internationalisation is incremental. Thus they benefit from surprise in creating their global presence, equipped as they usually are with a 'geocentric' management perspective (Perlmutter 1969). A firm without this "gestalt switch" sees the international economy in terms of adding one foreign country to its domestic market, then another, and another in incremental expansion. In such a process, a "global perspective" emerges only slowly, if at all. Trade-offs between country operations, and the rotation of product strategies through the most relevant countries, are barely discernible as potential strategies.

Organisational and strategic innovation

Latecomers and newcomers can be expected to adopt a variety of global organisational forms, such as web-like integrated global operations. In most cases they dispense with conventional "international division"-style organisation, which demonstrates that they begin their internationalisation already equipped with a global outlook. The effect is that such firms do not tend to suffer from well-known "subsidiary-headquarter" problems of morale and initiative (Andersson and Forsgren 1996). The counterpart to this local responsiveness is the issue of maintaining global coherence and integration. Mathews (2006) documents one of many possible trajectories in building new organisational structures.

As newcomers and latecomers, these firms had to find innovative ways to make space for themselves in markets that were already crowded with very capable firms. Viewed in their own terms, the firms found new ways to complement the strategies of the incumbents through offering contract services, licensing new technologies, and forming joint ventures and strategic alliances. It is plausible that newcomers and latecomers were able to win a place in the emergent global economy through the implementation of these complementary strategies – not on the basis of their existing strengths, but of their capacity to leverage resources from the strengths of others⁶. These internationalisation strategies, designed to enhance firms' resource base rather than to exploit existing assets, represent a fundamental departure in thinking by firms about what "globalizing" means and how it can be accomplished. It takes the firms beyond earlier stages of multinational expansion, characterized by what Perlmutter (1969) described as ethnocentric and polycentric management attitudes, straight to a geocentric strategic perspective. This turns out to be an advantage of being a latecomer or newcomer.

^{6.} This strategy parallels a similar approach to leveraging technological capabilities by latecomers from incumbents, as described in Mathews and Cho (2000).

Branding

Nowadays, virtually all consumer products sold by developed country retailers are made entirely or to a significant extent in offshore factories located in developing countries (Feenstra, 1998; Gereffi and Sturgeon, 2004). Yet, the development of global value chains assigned firms from developing countries a largely supporting-actor role. In the modular production network that characterize consumer durables and capital goods, in particular, lead firms concentrate on the creation, penetration, and defence of markets for end products — and increasingly the provision of services to go with them — while manufacturing capacity is shifted out-of-house to globally-operating turn-key suppliers (Sturgeon, 2002). Becoming ODMs and further progressing into OBMs, either through the firm's own efforts or through brand acquisitions from incumbents, is hence the most difficult phase for any latecomer or newcomer MNE. Manufacturing companies demand designers with strong creative skills who are capable of both identifying new ways in which people can interact with technology and strategies to design a creative identity. Although a key challenge for companies from emerging economies, this aspect receives preciously little emphasis in the EM-MNE literature.

II. THE GLOBAL WHITE GOODS SECTOR

The production of white goods (SIC 363) constitutes a mature and increasingly global industry. We focus on this industry for a number of different reasons. The white goods sector shows common characteristics with other producer-driven global value chains, although relatively few scholars have analyzed it (e.g. Nichols and Cam, 2005, Paba, 1986, Perona *et al.*, 2001). Insofar as it is a mature and global industry, we would expect to see the emergence of EM-MNEs. Products are relatively similar and simple to produce, although assembling different parts and subsystems requires the combination of knowledge domains ranging from mechanics to electronics and plastic moulding (Sobrero and Roberts, 2002). Although environmental and energy savings concerns, as well as the development of wireless technologies and connectivity, are pushing towards convergence with other technologies (domothics), the basic production technology is also mature (Granstand *et al.*, 1992; Ferigotti and Figuereido, 2005). There is therefore strong pressures to delocalize sourcing and assembly to developing countries where not only input costs are lower, but demand growth rates are higher as ownership of major home appliances is strongly correlated to economic development and urbanisation.

World demand for major white goods is projected to increase over three per cent annually through 2009, exceeding 380 million units. Strong growth in developing economies shall compensate the sluggish demand in OECD countries, where market penetration is high (above 90/95 per cent) and the market is driven primarily by demand for replacements. This is a market where China has grown into the world's largest supplier of white goods, nearly tripling production from 1994 to 2004, especially in the refrigerator, air conditioning and microwave oven segments.

International trade tends to take place within geographically proximate and relatively homogeneous markets. Given the heavy weight of most appliances, transportation costs are high. In addition, in different areas consumers have different preferences. Another issue is the presence of widely different standards: safety/environmental, energy efficiency, and testing procedures. These standards had traditionally created entry barriers that served to fragment the industry by country.

A lesson emerging from leading white goods manufacturers is that success depends on firms' internal resources as much as it does on the collective efficiency of the cluster in which they operate and are embedded (Sori, 2005). In fact the choice of off-shoring location is driven not only be demand and costs considerations, but also by the presence of suppliers of specialized components.

Outsourcing, once limited to neighbouring firms in the industrial cluster, has expanded geographically, thus creating OEM opportunities for firms in emerging economies. Maytag dishwashers use Chinese motors and Mexican wiring and are assembled in the US. OEMs in developing countries are also producing on behalf of Western OBMs. The processing is now moving further as the world's white goods – and not simply their components – are indeed increasingly being made in emerging markets. Electrolux, which at February 2005 had 27 of its 44 white goods factories in high-cost countries, switched about 20 of them from Western Europe and the US to lower-cost countries such as Hungary, Mexico, Poland Russia and Thailand, and increased significantly its imports of parts from Asia (Knudsen, 2006). Premium brand Miele opened a Czech factory for horizontal-axis top loader washers for the French market. Whirlpool closed its Quebec plant, retrenched staff in Italy, and is moving much of its production from Arkansas to Mexico. Indesit is adding new capacity in Poland and Russia. The biggest Asian players are also building new plants in Central Europe and Russia.

On the other hand, since household appliances are experience goods (i.e. products whose characteristics and quality can only be ascertained upon consumption) and reputation matters, brand loyalty is a very important competitive factor in this market (Paba 1986). It acts as an information-based barrier to entry, reduces the amplitude of short-run demand shifts and allows firms to experiment (brand reputation cannot be brushed away by a single product innovation failure). For some products, moreover, consumers are still willing to pay higher prices for goods produced in a specific country.

A major recent change in the industry has been the simplification and standardisation of production platforms that allow using standard engineering frameworks to which parts can be added or subtracted (Nichols and Cam, 2005). The development of common platforms also allows to speed up product renewal and time to market, which are necessary to avoid price erosion. The introduction of computer aided manufacturing (CAM) and flexible techniques, including just-in-time, have allowed to reduce production costs. These again are technological and organisational innovations of which latecomers, without the prior routines that drag down incumbents, can take advantage, and which help to drive their successful internationalisation. The search for greater efficiency, rather than pure price competition, had a dramatic impact on the plant organisation of labour. Flexibility means that a production line can process different models without any special tooling up time or pauses in the production flow. It also implies the minimisation of on-process and finished products stocks. Producers and buyers order more frequently in smaller lots and expect to track their shipments so that they can synchronize deliveries with their own production schedules and with a minimum of warehousing. Again we would expect to see latecomers taking full advantage of such tendencies.

At the corporate level, the world home appliances industry is still rather fragmented with no single manufacturer commanding more than 10 per cent of the world market. Fragmentation reflects the high incidence of transport costs, persistent differences in consumers' preferences and brand loyalty. The world's top ten manufacturers, ranked by sales, include three US companies, four Japanese ones, and one each from Sweden, Germany, and China (Table 1). Only a few offer the whole product range and are present in all key markets. In fact, only Whirlpool, General Electric (GE), and AB Electrolux have a truly global orientation (UNCTAD, 2005a).

Others have a strong regional position or are leaders in specific product niches (often of high quality). As the market remains largely regional, there is scope for firms to become regional champions using a few strong brands to keep the product range manageable.

Table 1: Competitive orientation of major household appliance manufacturers

Global Players	Whirlpool (U.S., 1906), AB Electrolux (Sweden, 1910), General Electric (U.S., 1907)
Global Aspirants	Bosch-Siemens (Germany, 1886), Haier (China, 1984), LG Electronics (Korea, 1958)
Strong Regional Players	Matsushita/Panasonic (1950), Sharp (1970), Toshiba (1960), Hitachi (1960) (Japan),
	Samsung Electronics (1969) and Daewoo Electronics (1983) (Korea) in Asia
	Maytag (U.S., 1907) in North America
	Miele (Germany, 1927), Candy (Italy, 1945) and Indesit (Italy, 1958) in Western Europe
Strong Local Players with	Arçelik (Turkey, 1955), Mabe (Mexico, 1950), Multibras (Brazil, 1994), Fisher & Paykel
Some Regional Presence	(New Zealand, 1934)
Domestic and Niche Players	Sub Zero/Wolf (U.S., 1945), Guangdong Midea Group (China, 1980)

Note: in parenthesis the approximate year when the company entered into the household appliance industry. *Source*: Hunger (2003) for the classification, Sori (2005) and company sources.

Research methodology

This study employs a case-study approach, in order to generate a depth of findings that would be unavailable initially in a larger quantitative study. The case study is "a research strategy which focuses on understanding the dynamics present within single settings" (Eisenhardt, 1989, p. 534). The process of building theory from case studies is strikingly iterative. One of its strengths is its likelihood of generating novel theory, but this can also lead to weaknesses. The result can be theory which is very rich in detail, but lacks the simplicity of overall perspective and is narrow and idiosyncratic. Data was gathered from face-to-face interviews with Arçelik executives (Istanbul in December 2004 and Bucharest in May 2006), Mabe (Mexico City in August 2005), and three consulting firms working with the companies under examination (Milan in April 2005, Tokyo in July 2005 and Madrid in September 2005)'. The interviews consisted of open-ended questions gathering views and opinions, as well as factual data-gathering. Specific questions concerned the motivation and pattern of internationalisation, as well as the role of strategic partners and the competences acquired throughout the process. In addition to the primary data, supplementary data was collected from secondary sources such as other published case studies, company brochures, financial newspapers, trade magazines, and other media reports. In what follows we present the three cases in the order of their globalisation - from the slowest and longest established, to the most recent and most highly accelerated form of internationalisation.

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^{7.} In addition, UN-ECLAC kindly provided transcripts of MABE interviews conducted in August 2005.

III. EMERGING MULTINATIONALS: MABE, ARÇELIK, HAIER

Mabe

Mabe was founded in Mexico City by Basque immigrants in 1947 to make metal kitchen cabinets. Today it is one of the leading home appliances manufacturers in Central and Latin America, producing more than 12 million appliances per year, employing about 18,000 employees in 14 factories (ten of which are in Mexico, one in Colombia, one in Ecuador and two in Brazil) and selling products worth about \$2 billion in 70 countries. The company ranks 146th in 2004 in terms of revenue amongst the top 500 Latin American companies and is ranked 66th in Mexico⁸.

Anticipating the opening up of the Mexican economy, in 1987 Mabe signed a joint venture agreement with General Electric (GE). In exchange for a 48 per cent equity share, GE became Mabe's main business partner and largest customer: it contributed the refrigerator component spun off from its joint venture with Grupo Industrial Saltillo, plus \$25 million in cash, and a commitment to provide management training and technological support (Vietorisz, 1996). Pursuant to this joint venture agreement, GE licensed trademarks and patents, provided technology and technical advice and distributes Mabe's OEM products in the US, while Mabe retained entire management responsibility. In 1987-88 Mabe rounded out its own major appliance lines (refrigerators and washing machines) by purchasing IEM Westinghouse from government and the entire capacity of the GE-Grupo Industrial Saltillo. As a result of the joint venture, MABE and GE built a stove factory in San Luis de Potosí to serve the US market and an R&D Centre in Queretaro.

Through the 1990s Mabe pursued an internationalisation strategy in Central and South America. Through a series of targeted acquisitions, it gradually established a production base to serve the Andean region. In 1993 Mabe acquired a Venezuelan manufacturer of washing machines and gas ranges (Menaca, subsidiary of Dutch CETECO) and a manufacturer of refrigerators in Colombia (Polarix). The deals were made on behalf of the investors on the Mexican side of the Mabe-GE joint venture, but with a Mabe management contract. In 1995 the expansion into Central and South America continued with the purchase of a ½ stake in Durex in Ecuador, of rights to the "Centrales" brand in Colombia, and with the establishment of distribution organisations in Guatemala and Costa Rica. With the aim of better integrating operations across Andean countries, Mabe regrouped its activities into Corporación Mabe Andina, which commands a 70 per cent share of the regional market. With technological and

^{8.} Data come from America Economia and Expansión, respectively

commercial support from GE, MABE replicated in these countries the strategy that led to the leadership at home. Local, well-known brands were kept and the product range completed by expanding production capacity to sell own brand appliances.

NAFTA has driven the growth of Mabe, and of the Mexican home appliances sector, over the past decade. Following the collapse of the Mexican peso in December 1994, Mabe, with strategic advice from GE, quickly accomplished a major substitution of imported components by Mexican-supplied components. Mexican exports of refrigerators jumped from less than \$100 million in 1994 to about \$230 million in 1999. By the early 2000s, more than one-third of all gas ranges and mini-refrigerators sold in the United States were being manufactured in Mabe plants (Hunger, 2003). Mabe and GE claim that their side-by-side refrigerators can be found in one every four American homes ⁹.

In 1998 it consolidated its operations in the Andean region, creating Mabe Andino, and entered South America. It established a joint venture with Spanish Fagor in Argentina, to buy a leading refrigerator producer. In Brazil, it bought, jointly with GE, Dako the stove manufacturer. In 2003 it gained full control over the latter and acquired the CCE refrigerator business. Today Mabe Mercosur accounts for more than half of the group's foreign sales. In 2005, a further acquisition was made in Canada, of Camco, which is intended to increase Mabe's production capacity in North American and enlarge product and brand range. With annual sales of Cn\$643 million (\$550 million) in 2004, Camco manufactures clothes dryers and dishwashers under OEM arrangements with various companies including GE, which was its largest shareholder.

Table 2: Milestones for Grupo Mabe

1945	Mabe founded; starts producing kitchen furniture in 1948
1959	Mabe is Mexico's leading exporter of kitchen appliances
1986	Mabe-GE JV formed
1989	Mabe expands production capacity and range (IEM and GE-Grupo Industrial Saltillo)
1990	Mabe-GE opens new stove factory and its R&D Centre in Queretaro
1991	Mabe-Ceteco JV to produce appliances in Venezuela, expanding in 1993 to Colombia (Polarix)
1994	Mabe Sanyo Compressor established
1995	Mabe expands into Brazil and Ecuador (Durex)
1998	Mabe-Fagor JV formed to produce appliances in Argentina
2003	Mabe acquires GE-DAKO in Brazil
2005	Mabe acquires Camco in Canada

In 12 years, since 1986, Mabe was producing through JVs in five external countries, all concentrated in South America, and it continued to build a strong presence in South and Central America, as a regional force. Brands: Mabe, Easy and IEM (Mexico); Regina (Venezuela); Durex (Ecuador); Inresa (Peru); Centrales (Colombia); Dako (Brazil); Patrick-Fagor (Argentina).

Arçelik

Arçelik was founded in 1955 by Vehbi Koç, founder of the eponymous group, to produce metal office furniture. Koç Holdings, Turkey's largest multinational, owns 57 per cent of Arçelik shares; another conglomerate, the Burla Group, controls 20 per cent, and the remaining

^{9.} GE transferred production of low-margin minibar fridges to China in 2000. Mabe also closed its washing machines plant in Monterrey in 2003 and moved production to San Luís Potosí.

23 per cent are publicly traded on the Istanbul Stock Exchange¹⁰. Arçelik moved quickly into home appliances, manufacturing Turkey's first washing machine in 1959 and first refrigerator in 1960. By the early 2000s it had seven production plants in Turkey to produce a complete range of home appliances. In 2005 Arçelik produced 7.9 million units and had sales of €3.1 billion, making it the leading firm in Turkey's consumer durables (53 per cent of domestic sales and 54 per cent of exports) (UNCTAD, 2005b; company annual reports). Its 2005 international sales amounted to €1.2 billion.

In the 1980s Arçelik started exporting on an opportunistic basis to neighbouring countries. As Turkey agreed a schedule of phased tariff reductions with the European Community in 1988, exporting gained in importance to counter the increase in imports and make the most of heavy sunk investments in new machinery and equipment. The firm licensed technology from GE and Bosch-Siemens that could be used for domestic production only. An OEM contract in the United States was secured with Sears Roebuck in 1988 to supply refrigerators under the Kenmore name, followed nine years later by a similar, but much larger, European deal with Whirlpool for dishwaters. As a condition of these deals, Arcelik committed not to sell similar products in Europe under own brands. In 1996, 50 per cent of washing machines' exports and 30 per cent of refrigerators' were under OEM contracts.

To get around these contractual restrictions and support its internationalisation, Arçelik started investing in the development of its own technology and brand, as well as the acquisition of foreign ones. Significant investment in R&D in the 1990s led to the development of own appliance designs, often resulting in significant cost reduction with respect to the licensed technologies (Root and Quelch, 1997). Following the reorganisation of Holding appliance division between 1998 and 2001, the five existing firms were brought together to form Arçelik A.Ş. It was then decided to export white goods and TV under the Beko brand, since this was already known in major European markets and according to brand managers it conveyed a more 'high tech' image¹¹. In light of the different market structure, Arçelik decided to develop as an OBM in the UK and in France, leveraging on the Beko name, while continuing to operate as an OEM in Germany. Sales offices were opened in all such markets in the second half of the 1990s.

The 2000s saw the flowering of Arçelik's internationalisation strategy, aimed at expanding brand portfolio, market penetration and product mix in Europe. A joint venture signed with LG of Korea in 1999, with financial support from the International Finance Corporation (IFC), the private sector arm of the World Bank Group, led to the first air conditioner manufacturing facility in Turkey. Arçelik then bid for Brandt, a French company in receivership. Although it lost to ELCO, an Israeli competitor, building on the failure Arçelik made major purchases of brands in 2002 – Blomberg (a subsidiary of Brandt) in Germany, Elektra

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^{10.} The holding is controlled by the Koç family; it is an industrial and financial conglomerate consisting of 106 companies, with total assets of \$14.2 billion, consolidated sales of \$16.2 billion, exports of \$5.7 billion, and 62 thousand employees in 2004 (UNCTAD, 2005b). The Ramstore chain of supermarkets and retail outlets plays a key role in the group internationalisation strategy.

^{11.} Beko Elektronik is one of Europe's largest television OEM/OBM producers. The Beko brand was introduced in Turkey in 1956 and used for "brown goods".

Bregenz and Tirolia in Austria, and Leisure (cookers) and Flavel (appliances and TV sets) in Britain. In Romania, Arcelik acquired the refrigerator producer Arctic, invested to modernize the company's operations and expand the product range, and made the subsidiary the largest production site for cool appliances for the EU market. In 2004 Arçelik acquired the brand name Gründig, after the German firm went bankrupt (Beko Elektronik had been an OEM supplier to it previously). Expansion eastwards started in 2005, when Arcelik launched the construction of a refrigerator and washing machine plant in Russia, which is expected to yield \$150 million revenues in 2007. The corporate investment program is partly supported by the IFC, which signed a €160 million loan. In 2006, it started exporting to the US and to China, where it is also considering whether to begin production.

Over the last four years the company has doubled its turnover. By 2006, foreign sales represented 48 per cent of total turnover (up from 16 per cent in 1997), and approximately two thirds of sales corresponded to own-brand products. Arçelik became in 2006 the thrid-largest European producers of white goods and shall pass the bar of \in 4 billion turnover in 2007 after its consolidation with Beko (Arçelik, 2007). The strategy is paying off in terms of larger market shares, especially in European countries, which make up 86 per cent of overall international sales ¹². Management has set the ambitious target to achieve \in 6 billion revenue by 2010, with at least 50 per cent of it coming from international sales. In addition to its strategy of organic growth, Arçelik is actively searching for acquisition targets, especially to acquire a new high-end brand to complement its international Bloomberg (middle-segment) and Beko (lower-segment) brands.

Table 3: Arcelik milestones

1955	Establishment of Arcelik
1959	Production of first washing machine in Turkey
1960	Production of first refrigerator in Turkey
1988	Start of OEM exporting to US (Kenmore brand for Sears Roebuck)
1991	Establishment of R&D Centre
1997	Start of OEM exporting to Europe (Whirlpool)
1998	Promotion of 6-sigma quality program and reorganisation of Koç Holding household
	appliances division
1999	Arcelik-LG Klima JV established
2000	Adoption of Beko brand for exports
2001	Unsuccessful bid for French Brandt
2002	Acquisitions in EU (Blomberg, Elektra Bregenz, Leisure and Flavel)
2002	Romanian household appliance company Arctic acquired
2005	New chest freezer production line established at Arctic
2006	New production line in Russia; exports to China and US; consolidation with Beko.

Within five years of globalisation initiated, in 2000 production established in six countries. Foreign sales account for 44 per cent of total sales. Brands: Arcelik; Beko; Blomberg; Elektrabregenz; Arctic; Leisure; Flavel; Altus.

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^{12.} Arcelik/Beko holds a 7 per cent share of the European free-standing appliances market and 5 per cent of the OBM market. Beko products account for approximately ¾ of Arçelik international sales and are among the top brands in many markets – including the UK (14 per cent share in refrigerators and 7 per cent share in washing machines) and Poland (5 per cent share).

Haier

Founded (in its present form) in 1984 as the Qingdao Refrigerator Factory (the former name of the company) in Qingdao, a port city south of Beijing, Haier first business was the manufacture of refrigerators based on technology transferred from the Germany company Liebherr¹³. Haier's white goods sales have grown by 70 per cent a year on average over the past two decades to reach \$1.84 billion in 2004 (up from \$583 million in 2000)¹⁴.

Haier's internationalisation strategy constitutes an example of carefully planned market-and asset-seeking growth through FDI. It initially focused on Southeast Asia, with investments in Indonesia, Philippines and Malaysia to produce refrigerators and air conditioners (Liu and Li, 2002). In 1999 Haier became the first Chinese company to operate a US manufacturing facility in Camden, South Carolina¹⁵. From its \$15 million American headquarters in mid-town Manhattan – the 1924 landmark Greenwich Savings Bank Building – Haier also runs a design office, employing another 400 people.

Haier also invested £80 million in Europe in 2001-04. It purchased the 250,000 units per year refrigerator plant belonging to Meneghetti Equipment in Padua, also buying Meneghetti-produced built-in ovens and hobs to market them in China under the Haier brand name. Haier saw this acquisition as providing the opportunity to develop new products from a European manufacturing base. Also in Italy, Haier set up the European headquarter in Varese, at the heart of one of the country's white goods district where Whirlpool and other international companies have large manufacturing facilities. Besides establishing itself in OECD markets, at an earlier stage and at a larger scale than either Mabe or Arçelik, Haier is also present in emerging markets, in Asia and elsewhere. In India, after a disappointing experience in a 30/70 per cent joint venture with tube maker Hotline, Haier already operates two leased factories and five showrooms and is planning to open a new factory with a capacity for one million TV units and a R&D centre. In Africa, where Haier billboards are conspicuous in many cities, Haier operates SODINCO in Algeria and has allegedly opened plants in Egypt, Nigeria and South Africa in 2005, following the establishment of Haier Middle East Trading Company (2001) and of an efficient distribution

^{13.} Other than a technology cooperation agreement, which ended in 2001, the connection with Liebherr ended in 1994. Published case studies of Haier include Liu and Li (2002), Muroi (2005) and Crouch and Rodrigues (2005).

^{14.} We use sales data from Fortune which refer to the 10 companies listed on the Shanghai Stock Exchange, including Qingdao Haier Electronics Group and Qingdao Haier Refrigerator. The sales figures consist primarily of refrigerators and air conditioners, while televisions, personal computers, mobile phones and other products are excluded. The company is part of a larger diversified group, reporting sales in excess of \$12 billion and overseas sales of \$1.2 billion. Although these are often mentioned in the press, they are not certified.

^{15.} In 2006 a \$100 million plan was announced to expand the plant and add 800 jobs, bringing total workforce to 1,000 employees.

^{16.} As other Chinese champions, Haier maintains a close relationship with public sector institutions (Wu and Chen, 2001; Deng, 2004). In June 2005, the International Department of the Communist Party of China Central Committee invited politicians from nine African nations to visit the Qingdao offices. After their visit, they promised to become "volunteer spokespersons" for Haier in Africa.

and after sales service network in the region, a factory was opened in Amman, Jordan, to produce both for the regional market and the EU.

Finally, Haier has tried to acquire the US third-largest producer of home appliances in June 2005, in collaboration with US private equity investors. Although the timing of the \$1.28 billion bid for Maytag was partly imposed by external circumstances – the company was already in negotiations with other interested investors – it proved rather unfortunate to the extent that it coincided with the attempt by another Chinese company, CNOOC, to buy a US oil producer, Unocal. This deal, which did not materialize eventually in the face of strong political resistance, created an environment in which even the purchase of an American company in a mature and hardly high-tech sectors such as appliances was seen as worth the attention of security agencies. Maytag was eventually acquired by Whirlpool. . In 2006, Haier overtook Whirlpool as the world largest refrigerator maker. Building on this strength, it signed a joint venture agreement with Sanyo, to take over Sanyo's refrigerator design and development operations and buy an 80 per cent stake in its flagship refrigerator plant in Thailand. Sanyo will procure the products from Haier on an OEM basis for the Japanese market.

Table 4: Haier milestones

- 1984 Founded as Qingdao General Refrigerator Factory under new CEO Zhang Ruimin
- 1991 Haier is China's leading refrigerator producer; Qingdao Refrigerator Factory merged with Qingdao Air Conditioner General Factory
- 1992 Haier Industrial complex established, Qingdao
- 1993 Haier begins to produce for foreign MNEs under OEM contracts. JV with Mitsubishi Heavy Industries to produce air-conditioners in China.
- 1995 JV in Indonesia with local producer of refrigerators and air conditioners
- 1996 Haier starts manufacturing in Malaysia
- 1997 JVs in the Philippines, with local company LKG, and Yugoslavia for manufacturing air conditioners; sales of own brand products launched in Germany
- 1998 JV with Philips of the Netherlands
- 1999 Establishes manufacturing facility in USA (Camden, North Carolina)
- 2001 JVs in Pakistan and India (Bengal); Meneghetti acquisition in Italy; establishment of Haier Middle East Trading Company in Jordan (JV with Syrian and Lebanese partners)
- 2002 Haier-Sanyo created in Japan; manufacturing JVs in Iran and Algeria
- 2004 Haier recognized as one of world's Top 100 brands (only one from China)
- 2005 Industrial complex established in Jordan; plants opened in Algeria, Egypt, Nigeria and South Africa

From the beginning of its globalisation, in 1995, Haier was active in more than five countries within five years (including USA). According to company sources, by 2005 it had has set up 10 industrial parks worldwide and 22 plants overseas.

IV. GENERAL FEATURES OF THE CASES

How well do Mabe, Arcelik, and Haier fit into the framework of 'second wave' MNEs as discussed above? Pretty well indeed. Since the mid-1990s, these three companies have internationalised through exports, built their own resource capabilities, and rapidly expanded internationally through acquisitions of both brands and production operations, as well as greenfield investments. They have also benefited from the great dynamism of the domestic market, although in a context of trade liberalisation and decreasing margins. They have succeeded in seizing opportunities available in the global economy to generate linkages with existing players, initially through OEM contracts, and built rapidly on them to establish their own brands and production facilities around the world.

Accelerated internationalisation

To varying degrees, the three firms under study have used participation in global value chains and OEM arrangements to overcome problems of market intelligence and uncertainty regarding the quality of knowledge potentially available. These linkages have provided initial involvement in the global economy.

As noted in the milestones documented above, the earliest founded firm under study, Mabe, took the longest to establish itself internationally. Starting with the joint venture with General Electric in 1986, it took Mabe 12 years to expand to seven countries in Central and South America – but it has not expanded as yet beyond its "natural market". It is a good example of what Rugman and Verbeke (2001) and Rugman (2000) call "regional MNEs" as compared with global MNEs.

Arçelik embarked on its globalisation quest later than Mabe, beginning its OEM phase in 1988 and its full-blown globalisation in 2002 with a series of targeted acquisitions and new openings in Europe and Russia to expand its geographical, product and brand range. In 2006 it operated two overseas production plants (Romania and Russia), a design centre in Italy and sold in 101 countries, increasing it share of foreign sales from 16 to 48 per cent (between 1997 and 2006), and being the third largest appliance company in Europe. The strategic target is to reach €6 billion total revenue by 2010, turn Beko into one of the Top 10 global brands in the sector, and control a 2 per cent market share.

The last established firm, Haier has been the fastest to internationalise. It leapfrogged beyond OEM to internationalise through acquisitions and greenfield investments in all regions, starting in Asia in 1995, in the US in 1999 and in Europe in 2001. Within five years of its internationalisation being launched, it was active in five countries (including the US); within ten years, it was actively producing in 22 countries.

Strategic and organisational innovation

The critical starting point for the latecomer is that it is focused on the advantages that can be acquired externally. The three latecomer MNEs have all used resource leveraging innovative strategies to secure access to technologies that would otherwise have been unavailable. Mabe leveraged its knowledge of GE corporate culture to behave like a turnaround specialist at its South American subsidiaries, which in most cases it bought either from GE or from the founding family. Sanyo is Mabe's other strategic partner in the area of compressors. Another strategic joint venture was launched with Spanish Fagor in 1998 to enter the Argentinean market.

Arçelik has license agreements with Bosch, Sanyo, GE, LG and compressor supplier Tecumesch. It forged a strategic partnership with Ubicom to develop 'digital living' smart appliances and use Internet processors and networking software that enables device-to-device communication. Its partnerships with European firms and exposure to more developed markets than Turkey's, combined with a long-standing focus on skills training and engineering, led to leading-edge products such as refrigerators that won the European Energy+ Award for outstanding energy-efficient products. This is again a characteristic of latecomer MNEs that can leapfrog their slower incumbent rivals to read incipient market signals (in this case, the preference for greener appliances) and adopt leading-edge technologies.

Haier too has leveraged on its strategic partners (Liebherr, Merloni, GK Design, Mitsubishi) and is entering into numerous parallel alliances in order to secure maximum leverage from advanced technologies. It is working with leading providers of wireless technologies (Helicomm, Ericsson, Metalink) and other appliance makers (Sanyo and Samsung) to co-develop home appliances with in-home wireless networking capability communications. In 2005 it inaugurated a joint power laboratory with ON Semiconductor (one of the world's largest suppliers of power management devices) at its own R&D centre which will focus on providing a single, standardized AC mains input voltage platform that can equip all its next-generation products.

All three firms have invested heavily in R&D and innovation. They all operate an R&D and design centre and have successfully introduced substantial process and product upgrading, as witnessed by numerous national and international awards received over the last years and the number of registered patents¹⁷. In April 2006, Haier became the first Chinese household appliance brand to win the prestigious iF Product Design Awards. R&D investments are also being made abroad. Haier has set up local product-development teams in Tokyo, Germany and the United States to differentiate its line and move up-market. Arçelik has opened a research centre in Italy to strengthen its relationships with Italian specialized suppliers.

In terms of organisational capabilities, the three case firms adopted numerous innovations that have helped to accelerate their globalisation. Arçelik, for example, because of the small size and limited capabilities of many local suppliers, displays a higher degree of

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^{17.} The total number of registered patents as of May 2006 was: Arçelik (8 in US, 51 in Europe), Mabe (3 in US), Haier (30 in US and 3 in Europe). Source: USPTO (http://www.uspto.gov/patft), and European Patent Office (www.ep.espacenet.com), accessed on 8 June 2006.

vertical integration than might be typical in the appliance industry, manufacturing more of its components in-house¹⁸. Arçelik has also made the commitment to product quality and innovation a cornerstone of its expansion strategy. It has introduced a series of quality improvement programs such as Total Quality Management, tripling production with relatively low investment and the same factory floor layout and achieving good ratings from independent test institutes¹⁹. Modern quality and human resource management practice have also been rapidly introduced at the Romanian affiliate, which was granted Total Productive Maintenance (TPM) certification in 2006.

Mabe too is utilizing the most advanced management techniques to boost its latecomer advantages. It characterizes itself as a "low profile, but pragmatic firm", which implemented a "learning by doing" ("aprendizaje en acción") strategy in searching and chasing opportunities for growth, through rapid organisational changes to better adapt to evolving market conditions. Instead of following an incremental pattern, moving from pure trading to distribution and finally to direct investment, Mabe decided to form a group of managers capable of identifying appropriate targets and then buying and managing them. Adoption of modern ICT and training of personnel is considered a priority and, according to company sources, each worker is entitled to at least three weeks of training per year. Senior management maintains that investment in human resource development is a key driver for rapid growth in foreign markets. In Mabe Andina, 5 per cent of working hours correspond to training and skills acquisition. Similar to Arçelik, Mabe has also invested heavily in after-sales service support as this is seen as a key determinant of purchasing decisions for low-income groups. Mabe also contracted one of the leading US providers of dynamic value chain management solutions (i2 Technologies) to develop and implement its eBusiness strategy and optimize supply chain management from manufacturing to distribution, marketing, sales and delivery. Serviplus, the company's product service division, is expanding to provide after-sales support service to customers in all countries where Mabe products are sold (in the US after-sales support to customers is provided by GE).

Likewise Haier has engaged in global consolidation of its operations, employing a strong and unifying geocentric perspective that has enabled it to capture advantages from its global reach and coordination, such as in logistics. The company had been a heavy and early user of ICT. An Enterprise Informatisation Development Plan was formulated in 1992, the enterprise Intranet and Extranet launched in 1997 and by 2000 all raw materials purchases were on the Internet. The personal imprinting of CEO Zhang Ruimin on Haier was a distinctive feature of the company's early trajectory. His "militaristic" style of management is legendary: he once ordered the smashing of 76 faulty refrigerators with a sledgehammer – now preserved for its symbolism

^{18.} The Çayırova plant houses a dedicated tool shop, staffed with 17 CAD/CAM design specialists and 33 operators, serving all other plants, which also contributes to appliance designs. The product development department employs 70 engineers and technicians, some of whom came from Bloomberg (Appliance 2005).

^{19.} In 1992 management decided to approach Total Quality Management globally and systematically and do its first self-evaluation according to the Malcolm Baldridge model. Systematic total quality operations (6 Sigma) and three-year product guarantees were introduced in 1998, when Arçelik first qualified as a finalist in the National Quality Award.

in the company's museum. From that day, 'quality supreme and sincerity forever' became the company slogan and has become a core value on which the company's new routines are formed. In the mid-1990s Zhang introduced the vision to turn Haier into one of the world's top three home appliance manufacturers. To unleash the entrepreneurial energies of the workforce and compete on the basis of knowledge, he constructed so-called "accountability chains" from the market directly into those corporate services that typically never see the customer or feel the market forces, and has developed its "OEC management-control system"²⁰. Starting in 2002, Haier has focused on making every employee a strategic business unit: each employee is an independent profit centre with the responsibility to make profit (Lin, 2005). Haier has an extensive distribution and service network throughout China and uses this to gather data on customers. The company's repairmen, for example, discovered that customers in rural areas used their washing machines not only to launder clothes, but to clean vegetables as well. The repairmen relayed this information to the product managers, who asked engineers to make tweaks to existing products, such as installing wider drain pipes that would not clog with vegetable peels. Haier then affixed large stickers on the modified washers, with instructions on how to wash vegetables safely using the machine. This innovation and others (including a washing machine optimized to make goats' milk cheese) helped Haier to win market leadership in China's rural provinces, while avoiding the cut-throat price wars that plagued the country's appliance industry²¹.

Building global brands

As we argued before, the governance of the white goods industry presents opportunities and challenges to EM-MNEs. If mature technology, supply chain fragmentation and differences in the growth rates of domestic markets all sustain the internationalisation of developing country firms, they may still find it hard to acquire and/or develop brand reputation and consumers' loyalty. Moreover, despite on-going M&As and consolidation, the big players have been in the business for more than 50 years (Table 1). Over this period they have built strong brands, acquired those of competitors, and established trust relationships with retailers. What is therefore interesting in the case studies is the strategic use that the three EM-MNEs have made of both acquisitions and linkages with global economy to build such hard-won reputation. This aspect receives preciously little emphasis in the literature on EM-MNEs. It is possible to identify three mechanisms. First, acquisitions of Western brands, such as was the case of Arcelik/Beko

^{20.} In the acronym OEC, "O" stands for Overall; "E" for Everyone, Everything, and Everyday; "C" for Control and Clear (Lin, 2005). Every employee has to accomplish the target work every day with a 1 per cent increase over what was done the previous day. Every Saturday, the best 80 managers are sent to training courses at Haier University, the company-run executive education arm for its managers, conducted either by CEO or President.

^{21.} Haier's approach to living with its customers has worked surprisingly well abroad, too. In the US, for example, product designers visited the rooms of students put to observe how the undergraduates used their refrigerators (Sull and Ruelas-Gossi, 2004). They discovered that, in cramped dormitory rooms, students put boards across two refrigerators to create a make-shift desk. Haier responded by developing a model with a fold-out table, which enabled the coolers to double as desks. The new product was a hit.

with Blomberg and Gründig (and would have been the case with Maytag had Haier managed to buy it). Such moves can probably work only when the buyers know how to manage a brand identity –Arçelik for example has consistently been ranked Turkey's most widely known brand by AC Nielsen surveys, while Haier is the most valuable brand in China according to a *Financial Times* 2005 special survey.

Second, the three companies have supported this brand-building endeavour through long-term relationships with OECD-based specialists and the pairings seem to depend on the degree of psychic distance. In 2002 Arçelik adopted a new logo designed by the same American corporate graphic studio which had created the Koc Holding logo in 1987, and introduced the popular Çelik character, a technology spokesperson (Enberker and Ergin, 2003). The objective was to signal the transformation of the company into a serious player in a global industry hitherto dominated by Western firms and in which Arçelik wished to compete on the basis of high technology and innovation, as opposed to low labour costs. In its quest to become Latin America's predominant white goods company, Mabe turned to the Madrid office of Wolff Olins in 1995. The goal was to express a fresher, stronger brand presence, both in the category and as a corporation. Saffron replaced Mabe's muted red swoosh-mark, reminiscent of Samsung's oval (but not as strong), with a confident, simpler logo it calls "congenial". Beyond the logo, Saffron provided a visual system of bright Mexican colours, patterns and icons to create an appealing corporate personality "imbued with a bright sense of humour". Mabe is now aggressively targeting the premium segment with new, more appealing products. Haier chose a Japanese firm, GK Design - over, for instance, an American one - because of cultural affinity, although interviews with the former suggests that the latter's ambition to grow rapidly put strains on the relationship, as the haste may imperil attention to factors that GK Design considers important²².

Third, at least two of the firms have chosen sports as the focus of its global marketing effort, a strategy that also characterizes other EM-MNEs such as Emirates, BenQ, or Lenovo. Haier entered in 2006 a marketing partnership with the US National Basketball Association and also sponsors soccer teams in Europe; as Turkey's strongest volley team, Arçelik competes in the European Champions League Men (sponsored by Indesit). EM-MNEs have enthusiastically endorsed this advertising strategy, which seems to be perceived as quicker and more effective channel in overcoming cultural barriers and adding a bit of passion to the company's image, for at least three reasons. Sponsorship offers them a quick and easy way to raise brand awareness and enhance brand recall. Moreover, the exclusive partnership approach provided by sports governing bodies and other commercial partners confers upon them "image transfer" (i.e. acquiring the values of the commercial partners) and other benefits of association (e.g. access to distribution channels). Success in bidding for international sponsorship contracts can also signal competence, availability of resources and market power²³.

^{22.} Interview in Tokyo, 15 July 2005.

^{23.} Although prima facie sports sponsoring seems a high-return investment in terms of awareness raising, it is a complex and challenging undertaking, often undermined by weaknesses and failures and the impact of which is only likely to be optimal when it is used in conjunction with other marketing communications (Chadwick and Thwaites, 2005). Still, sports sponsoring is a form of leapfrogging insofar as it has certain 'propulsive properties' that enables companies to generate instant attention.

CONCLUSIONS

This paper has presented the experience of three latecomer firms which have established themselves as key regional players, in one case with global ambitions. As in the successful cases documented by Bartlett and Ghoshal (2000), the recipe of their success has been the ability to treat global competition as an opportunity to build capabilities, move into more profitable industry segments, and adopt strategies that turn latecomer status into a source of competitive advantage. Internationalising firms from developing countries are pursuing strategies that enable them to catch-up with established players, through leveraging off their latecomer advantages and strategic partnerships with market leaders. As competition intensifies and raw material prices go up, OEM white goods producers see their profit margins squeezed and cannot rely anymore on price-cutting and fast-paced expansion. This puts additional pressure to create new sources of competitive advantage, through investments in innovation, industrial design and branding, and acquisition of technology and brands overseas. The market is increasingly polarised around the premium and the value end and consumers demand higher customisation and services bundled with the appliance they buy (Knudsen, 2006). The three EM-MNEs considered here have all invested in R&D and after-sale services, and two of them have even established R&D or design centres in more advanced economies – although some are simply 'listening posts' – to benefit from the cutting-edge knowledge.

To what extent are these experiences completely new? Although the experience of Italian producers in the 1980s as emergent MNEs suggests that history is repeating itself (Sori 2005; Cam and Sugur 2005), there are differences in terms of speed and strategy.

- Arçelik has remained relatively focused on white goods, despite leveraging the membership in Turkey's largest diversified conglomerate. Its internationalisation strategy has been two pronged buying established brands in "old" Europe and adding manufacturing capacity in "new" Europe. It has also invested heavily in manufacturing, organisational excellence, R&D, innovation and quality.
- Haier has built up an impressive range of product lines and varieties, a choice that can be explained by the fact that China remains a poor country with weak infrastructures and institutions. Vertical integration is therefore an apt strategy to offset the lack of some key markets and associated sunk costs can be better recovered by expanding product range. Although Haier has started investing overseas at an early corporate age, it still relies heavily on foreign components and technology.

— Mabe has made the most of geographical and "psychic" contiguity with the United States, partnering with one of its most celebrated enterprises, General Electric, and building in the process the necessary skills to expand at a later stage beyond Mexico and into South America. The key issue here is scale and capacity to rapidly develop new products as demand starts to grow and become more differentiated. Mabe has been able to interpret the Latin American *gusto*, while at the same time producing stoves to US taste.

The more the world economy becomes interconnected, the greater the pressures on firms to internationalise. Today firms internationalise in order to enhance their competitiveness, such as through attracting global customers. The insights generated are suggestive of trends that make it more plausible to argue that globalisation is being driven not just by the giant incumbent firms (Nolan *et al.*, 2002) but also by emerging firms internationalising from the periphery which capture competitive space from incumbents because of their ability to exploit the linkages available through globalisation and developing a culture of continual cross-border learning and value-addition (Bartlett and Ghoshal, 2000). The giants are still very much tied to a "home base" and to date have demonstrated little appetite for engaging in truly "global" competition. By contrast, newcomers and latecomers – the MNEs from the developing world – are more likely to be global in their outlook and their strategy and organisation. This is giving them rapidly acquired advantages over slower-moving and less-focused incumbents – even in markets that have traditionally been viewed as "global".

Insofar as OEM status has proven to be an effective entry door for developing-country industrial firms, what are the broader development implications? What lessons can be learned that can assist other firms which aim to upgrade to OBM status? If firms from emerging, transition, and developing economies are to grow and enhance their profitability, they will need to vie for the role of first-tier suppliers for lead firms, to operate on a global scale, and, in certain instances, to co-locate plants near the facilities of lead assemblers. Developing research and original design capability can further strengthen competitiveness, enable firms to take responsibility for entire modules, and eventually make a transition to OBM on a regional or global scale. The major risks are related to overstretching, both geographically and functionally, especially in view of the well-documented difficulties that Japanese and Korean investors have had in the past in operating multi-country production operations (e.g. Encarnation, 1999 and Sachwald, 2002)²⁴.

If the story we tell is accurate, is it also replicable? The white goods sector is a mature industry. Although OECD-based MNEs retain the lead in production and innovation activities, countries and firms from the periphery are increasingly involved in production of appliances, and not merely of their components. Moreover, demand growth is much higher in emerging markets than in industrialized countries. Leaders in the white goods industry have prospered by

^{24.} Industrial relations seem to be another area where cultural differences can become a barrier for latecomer MNEs in more advanced countries. Arçelik lost its bid for Brandt mainly because its industrial plan envisaged a larger scale retrenchment than its rival. At Haier, humiliation and ritual embarrassment grew to a company tradition and technique to boost productivity that managers could not transplant to foreign factories in US and Italy.

achieving economies of scale, better control of distribution channels and rather simple innovation. Facing declining prices, they are re-strategizing, investing heavily in R&D and innovation²⁵. Still, in other markets that have traditionally been domestic-oriented, like steel and cement, the peripheral firms are demonstrating how advantages can be secured through globalised operations and service.

Last but not least, as EM-MNEs now start to invest in other developing countries, the impact of their behaviours on the host economies becomes itself worth of additional research attention. How effective are they in establishing upwards and downwards linkages? Is there any notable difference in their behaviours compared to those of traditional MNEs that can back the claim that South-South investment is "development-friendly"? Moreover, how effective are they proving to be in instigating their domestic suppliers to adopt best-practice technology and modern organisation structures? As also noticed by Aykut and Goldstein (2006), these interesting questions remain severely under researched and we trust they will be explored by other scholars as well as by ourselves – all contributing to giving longer shrift to the business firm as the agent of economic development.

^{25.} Whirlpool is a case in point ("Creativity Overflowing", Business Week, 8 May 2006). See also Knudsen (2006) on Electrolux.

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