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The role of innovation in the effective international expansion of an emerging-country firm: The case of Arçelik

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Abstract

Successful international expansion by emerging-country firms is often predicated on technological capability and organizational restructuring that facilitates innovativeness. In the case of Turkey's leading home appliance manufacturer Arçelik, international expansion appears to have been to a large extent impinging on the development of technological and innovation capabilities. This paper aims to show how this emerging-country firm has utilized technology and innovation management to catapult itself to the ranks of regional players in the global home appliance industry and delineates the specific ways in which it has accomplished this. The paper contributes to international marketing literature by examining the role of organizational and product innovation in the internationalization of an emerging-country firm.

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1. Introduction

Over the last twenty years, Turkey has significantly increased its international trade in manufactured products. It is possible that this has been built on the basis of its lower labour costs compared with those of developed countries and the willingness of both Turkish national companies and multinational enterprises (MNEs) to invest in Turkey. While the basic evidence of Turkish trade development is clear, there has been only limited research on the business logic behind such growth, the reasons for choosing particular forms of expansion and the outcomes of such strategies at the present time for Turkish companies.

In order to explore these issues, we have undertaken a study of the Turkish manufacture and export of home appliances companies. This paper argues that effective international expansion of an emerging-

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market company is predicated on technological capabilities and effective innovation management. We have chosen to study Arçelik, the market leader in Turkey's home appliances industry, because this is a company that has adopted international expansion as a strategy for ten years and, as Turkey's patent champion for years, made innovation an integral part of that strategy.

We hope to make several contributions. First, we investigate the importance of research and development capabilities and innovation in effective international expansion of an emerging-country firm, and second, we examine how a large firm manages innovation so as to minimize the effects of bureaucratization, indicated in the literature as a factor that hinders innovative activities in larger firms (Lewin and Massini, 2003; Penrose, 1959; and Schumpeter, 1942, as cited in [38]).

The remainder of the paper is organized as follows: First, we provide a review of the theoretical background and literature on emerging-market internationalization and innovation. Second, we describe the data collection, analysis and results of the study. Third, we discuss the implications of the results, along with limitations of the study and possible future directions for research.

2. Literature review and research framework

Although the literature in international business research is extensive and continues to grow [63], Axinn and Matthyssens (2002) [7] have argued that most theories on international strategies focus on explaining the behaviour of large firms from developed countries. They do not provide the same insights into the behaviour of firms from developing nations in the international market place. Given the emergence of companies from new international trading nations like India, China, and Turkey, the authors claim that it is imperative to look at new empirical evidence, rather than rely on existing theories of international trade. Equally, Buckley (2002) [14] commented that the entry of developing countries as major players in the global economy may give new impetus to such research. This is echoed by other scholars' calls for research into strategies for firms from emerging economies [52]. We have chosen to summarize the main strands of the literature in the table below on the assumption that readers will be broadly familiar with the relevant papers, and we focus instead on drawing out the main highlights.

Table 1: Research framework – Strategic issues

Strategic issues	Some references
International business expansion	[27], [63]; [7]; [14], [36]
Global strategy and related issues in regional strategy	[41]; [21]; [33]; [65]; [25]; [26]; [30]; [31]; [58], [59]
Turkish international strategy – including routes to development	[61], [11]; [12]; [13]; [18], [37]; [57]
Strategic process	[56]; [54]; [51]; [15] – who identify four routes
Entry and expansion strategies of MNEs	[27]; [20]; [29]; [10]; [22]
Company resource management – international decisions and expansion	[24]; [49]; [23]; [9]; [53]; [48]; [34]; [45]

While international expansion represents opportunity for firms from emerging markets, it also presents significant challenges. These challenges come in the form of inexperience, lack of resources and capabilities, the market dominance of well-established rivals, and consumer loyalty to existing brands (For a discussion of the disadvantages faced by developing country multinational enterprises see for example [19]). It is interesting, therefore, to explore how, given their relative disadvantages, firms from emerging markets are able to compete successfully against their more established rivals in developed markets.

Research into international expansion by emerging-country firms has recognized the importance of a variety of factors as necessary precursors. Technological capability and innovation are considered to be among the most important of these factors (e.g., [68]; [28]; [42]; [60]; [66]; [44]; [17]). Porter (1990/1998) [55] has argued that firms achieve competitive advantage in international markets through innovation. Furthermore, a number of studies have argued that research and development capability leads to better firm performance (for example, [35]; [43]). This paper aims to highlight the role of technological and innovative capability in international expansion of emerging-country firms and illustrate the ways in which one such firm manages innovation. This is an area of scarce research, and this paper is an attempt at redressing this research gap.

3. Research method

At this stage in our research, we have taken an eclectic approach to the gathering of data. We have been more concerned to see where the strands of information might lead us than to address specific hypotheses. Our approach has therefore been to examine the existing trade and company data in Turkey from an international development perspective.

In addition to undertaking a statistical analysis of the Turkish home appliances industry, we have also, on a historical basis, conducted 23 face-to-face interviews over a period of 31 months in order to gain a historical and in-depth perspective on the trends in the industry. The interviews were also undertaken to develop an understanding of why various strategies were adopted. For reasons of confidentiality, we do not identify the individual managers and the senior industry representatives that we interviewed beyond their titles. However, we are confident that the insights offered by these senior Turkish figures throw new light on the international development strategies of the Turkish domestic appliance industry.

Prior to the interviews, we identified the relevant senior executives and made appointments to see them. The interviews each lasted one-and-a-half to two hours. Twenty-one interviews were tape-recorded, and two interviews were documented by written notes. For the tape-recorded interviews we hold the full evidence and have used this in the research material. The respondents are designated by letter, and the list is provided in the note at the end of this paper.

4. Research evidence on Arçelik

Arçelik is the leading manufacturer in Turkey's home appliances market with over a 50% market share (Arçelik Annual Report 2008, p. 26). In fact, the company's two main brands, Arçelik and Beko, have maintained a combined market share of around 50% for well over a decade [32, p. 1]. In 2010 the company produced nearly 10 million units (interview note) and had sales of 3.49 billion Euros (Arçelik

Annual Report 2010), making it the leading firm in Turkey's consumer durables. Koç Holding, Turkey's largest conglomerate, owns 40.5% of Arçelik; the Birla Group controls around 17.6%, other Koç companies hold another 16.7%, and the remaining 25.2% are publicly traded on the Istanbul Stock Exchange (Arçelik Annual Report 2010, p. 17). The only Turkish company in the World Intellectual Property Organization's first 100 league [64], Arçelik spent around 60.5 million Turkish liras (or around 30.6 million Euros) on R&D in 2010 [67], which amounted to nearly 1% of its net consolidated sales for that year. In fact, the company's international patent applications to the WIPO has been following a largely steady increase since 1996 (Company records).

Founded as Turkey's first home appliances manufacturer in 1955 and enjoying the largest share of the home appliances market in Turkey, Arçelik could perhaps be thought of as a company that did not need to expand beyond its home market. Apparently, so did Arçelik – as it did not seem to have engaged in a planned expansion effort until about the mid-1990s. Several factors then seem to have collaborated to accelerate the company's internationalization process. Among them are the opening up of the home market to foreign competition post-Customs Union with the European Union in 1996; recessions in the home market that severely contracted demand for home appliances; and the company's increasing capabilities. Today Arçelik is Europe's third largest manufacturer of home appliances (Koç Holding Annual Report 2010: 2). In fact, the company has 11 production plants in four different countries, has a sales and marketing organization in 19 different countries, and offers its products and services to more than 100 countries (Arçelik Annual Report 2010, p. 23). In July 2011 the company agreed to purchase Defy Appliances in South Africa from Franke Holding AG [6, p. 14], which added three more production plants to the company's roster. Moreover, in the year 2009 an important landmark was achieved in the company's internationalization venture: That year, for the first time, Arçelik's international sales accounted for the majority of the company's total sales, or 52% (Arçelik Annual Report 2009).

What were the roles of technology and innovation in the achievement of these results? To explore the answer we now use the evidence from our research interviews (Please see the Note at the end of the paper for a list of the respondents).

4.1. Upgrading quality

Already in the 1980s, demand contraction in the home market led Arçelik to the realization of the necessity of a more market-oriented strategy and of upgrading quality. From its earlier export experience – which had started out sporadically in the late 1960s – the company had inferred the necessity of upgrading quality to be successful in international markets. Now exportation appeared to be a means of diversifying away from the fluctuations of the domestic market, and exportation of production depended on quality improvements [47, p. 267]. In 1983 an export department was established [47, p. 320], which engaged a series of original equipment manufacturing contracts in the 1980s and 1990s to American and European manufacturers. By 1996, 50% of washing machine exports and 30% of refrigerator exports were under OEM contracts [11, p. 22]. The OEM experience taught the company the standards to produce to in order to be able to sell in foreign markets, the packaging, and the logistics of volume exporting [47, p. 310]. Until the 1990s the company improved the quality of its processes and products through strategic alliances with foreign companies.

The impending entry into its largely protected domestic market of major foreign competitors once the Customs Union went into effect was another factor that necessitated quality improvements. As it was, by the late 1980s the major stabilization program introduced earlier in the decade, aimed at curbing inflation,

overcoming the scarcities that hindered production, and reducing the foreign trade deficit through the promotion of exports and trade liberalization [1, p. 174], had started showing its effects. Multinational home appliance manufacturers which had once given manufacturing licenses to their Turkish partners now began forming their own distribution and dealership systems and offered their latest products to the market. In other words, in this liberalized market the obsolete products manufactured under license by local manufacturers were fast losing their chances of finding customers [62, p. 79]. Arçelik also had a number of licensing agreements with foreign home appliance manufacturers, and, when the company wanted to update its products and manufacture them using new technology, it was unable to purchase the technology it needed. This was yet another pressure that drove Arçelik to the consideration of developing its own technology [47, p. 342, p. 344].

While external circumstances appear to have been largely responsible for that decision, the company's internal capabilities obviously were supporting it. "No other company in Turkey does that [at the time]. Arçelik thinks: 'We can do this,'" noted Respondent K, explaining that that confidence stemmed from the company's then already strong technical infrastructure.

4.2. Establishment of a research and development center and organization of the research and development functions

The establishment of a Research and Development Center in 1991 appears to be the most critical decision pertaining to Arçelik's strategy of international expansion. The company's current general manager refers to the event as "a turning point in the history of Arçelik" that paved the way for the company's entry into international markets [2, p. 7]. In the groundwork-laying period some government incentives for research and development were utilized [62, p. 87].

As important as the establishment of a research and development center was the organization of the research and development function. Several key decisions were made in the early 1990s. One was the creation of a two-tier research and development organization. The Central R&D is responsible for developing manufacturing technologies while Product R&Ds at individual manufacturing plants are responsible for product development. Today the company has six research and development centers in addition to Central R&D, with the total number of research and development staff including those at the Product R&Ds exceeding 800 (Respondent S).

Explained Respondent K: "The Central R&D transforms knowledge into technology while the product development management functions – Plant R&Ds – at the individual factories transform technology into products." The main mission of the R&D Center is to develop and utilize in the products technologies "with high efficiency that are sensitive to the environment and that enable savings" [3, p. 37].

Another key decision was to organize the Central R&D along engineering disciplines such as thermodynamics, power electronics, and fluid dynamics rather than product-based divisions. It was precisely the selection of the former structure that encouraged multidisciplinary work: For instance, thermodynamics technology can be utilized both for ovens and for refrigerators (Respondent K). The choice of a multidisciplinary organizational structure for the central R&D department appears to encourage innovation.

By 1995, using a World Bank fund [62, p. 90], Arçelik managed to be the first home appliance manufacturer in Turkey to eliminate CFC gases from its refrigerators – many years ahead of Turkey's 2006 deadline for complying with the Montreal Protocol [4, p. 23].

The R&D Center operates on a project basis with each project having a plant as its customer. “When there is no customer, then there is no project” (Respondent K). “Either there is no need for that project or there is no need for it as yet.” The necessity of having a customer for each project prevents the R&D scientists from pursuing unreachable goals for a long time or from getting lost in details without producing any results. When a project is warranted, explained Respondent K, then even in the face of no customers, the R&D Director owns it up. Once the project is developed, the plant that is the customer of the project takes up the manufacturing.

The two-tier research and development architecture at Arçelik is accorded much responsibility for the company’s achievement of the status of Turkey’s number-one patent champion. The focused approach to R&D in individual manufacturing plants leads to the development of product-specific know-how and mechanical and functional solutions, and that capability is behind Arçelik’s rapid growth (Respondent R).

4.3. The role of innovation in international branding

Among the routes identified for international expansion for companies from developing countries, organic expansion is recognized to be slower and costlier than original equipment manufacturing, joint venturing or acquisitions [16]. In home appliances, for example, brand loyalty is a very important competitive factor [50]. Traditionally, the establishment of a new brand of white goods in an existing market has faced a formidable barrier in the form of costs of advertising and other selling costs [8]. An additional obstacle for these companies is initial negative quality associations among potential clients due to the products’ country of origin. Negative country-of-origin effects lower consumer expectations of quality, and as a result, consumers are not willing to pay as much for products from developing countries [46]. Patents and awards for innovative design may thus act towards winning legitimacy for the brand in the eyes of a skeptical market and trade. The story of how a washing machine and a refrigerator designed and produced by Arçelik caused something of a stir at a famous trade fair in 1997 illustrates this phenomenon [62, pp. 100-101].

4.4. Innovation management at Arçelik: An interdepartmental approach

The two main innovation platforms at Arçelik are “technology roadmaps” and “product roadmaps.”

The chief function of the R&D Center is to prepare technology roadmaps that point to future trends as they relate to the company’s current and potential products. Innovative new ideas are collected “from everyone - from inside the company, from outside the company, from product and market analyses, competition... These all provide input to the technology roadmaps” (Respondent K). Technology roadmaps in turn provide input to long-term product roadmaps – new product ideas that may be adopted for commercialization (Respondent M).

The Central R&D monitors trends and, combining the inputs from all of the various sources inside and outside the company, draws up a list of global trends with respect to products.

“We try to list those technologies that may be an opportunity or a threat for us. What are different technology areas and alternatives? In essence, we are putting them in priority ordering. ‘How much of a threat are they? How much of an opportunity?’ When doing that, of course, there is a lot of exchange of ideas. If we are told: ‘In the future this is the kind of product feature I want,’ then our search for a

solution [takes the form of exploring] those technologies that would provide that desired product feature. If our accumulated knowledge suffices for that, then that is directly turned into a project and realized,” explained Respondent U. When the how of coming up with that product feature needs more searching, then the exploration is conducted in the technology roadmap platform.

The “Inter” program (thus named to create associations with “interdisciplinary”) within Central R&D is one channel through which new product ideas emerge. The R&D Director has all of the department complete the Inter procedure every year, making sure to tap the ideas of everyone including the new recruits (Respondent K). A call for projects is issued throughout the Central R&D with a specific topic such as “more convenient kitchens.” The ideas received are discussed on an on-line discussion platform, and then some of these ideas are studied for their feasibility. Everyone in the research and development center has the right to initiate a project. The individual researcher is outright granted a six-month period to complete a feasibility study on the project and a minimum of 1,000 dollars.

The company uses a stage-gate system to manage the innovation process (for a description of the stage-gate system please see Cooper, 1990, as cited in [40]). The process is divided into several stages. At the end of each stage is a checkpoint. The researcher initiating the project must receive the approval of a selection committee made up of managers and specialists before moving on to the next stage. At Stage Minus One, the researcher does a preliminary feasibility study, which includes marketing research and patent search. At Stage Zero, the selection committee evaluates the project for practical applicability and return potential. When the committee gives a go, the project reaches Stage One, which is the stage during which the project will be conducted. Stage Two is where all reports, performance scores, and other feedback are received; the project file is closed at Central R&D and turned over for manufacturing to the manufacturing plant that had been the internal customer of the project. An intellectual property rights management group within the Central R&D takes care of patent search and patent applications (Respondent K). Even when the project is rejected, it is now taken under record, so that in the future other teams do not end up unwittingly working on already tried projects (Respondent U). Tracking knowledge also enables the company to monitor the amount of time devoted to innovative steps.

An “Innovation and System Development Department” within the central research and development function coordinates the innovation process. The department’s function is to define the innovation process, set up the mechanisms that would more effectively generate creative ideas, ensure that the ideas emerging from various sources within the company work effectively together, and monitor and control the performance of the innovation process (Respondent U). The department tries to achieve these objectives through defining the criteria for idea screening and facilitating information exchange within various company units – especially Central R&D, individual R&D centers at manufacturing plants, and Product Management. The department brings together various groups from product management, research and development, product development, and marketing. Some meetings include advertising agencies and consultants.

The Product Management group within Marketing creates the “product roadmaps” – new product idea recommendations for the next one year, three years or five years, that the group presents to a widely attended annual company meeting. Before drawing up this master list of product ideas, Product Management organizes a series of brainstorming sessions with various groups inside and outside the company: dealers, sales, marketing, subsidiaries, central purchasing, customer services, product servicing groups, industrial design, and quality assurance units at the manufacturing plants as well as central quality assurance. In addition, again a widely distributed call for demands is sent out. These product ideas and demands are studied by Product Management, with some worked into prototypes. During the critical annual meeting, attended by all sales and marketing groups, the subsidiaries of the company in other

countries, all of the R&D groups, Consumer Services, Central Quality Assurance, and Industrial Design, Product Management presents the master list of product ideas, receives scores for these ideas from the sales and marketing groups and the subsidiaries, and then screens the ideas using both the scores received as well as the priorities deemed critical by Marketing before making a final presentation attended by top management. The product ideas that are approved during the second meeting – the “decision” meeting as it is called – are slated for production. That decision commits all of the involved to the project; and therefore, consensus is essential (Respondent H). These projects are then turned over to the manufacturing plant R&Ds.

In addition to the technology roadmaps and product roadmaps, Arçelik makes use of cross-functional project groups at the research and development centers of the individual manufacturing plants to generate new product ideas. These groups are allowed to devote one day of the week to these projects, the outcomes of which are not pre-determined.

While there is a stage-gate system at the Central R&D, one respondent pointed out that the Central R&D has more freedom than manufacturing plant R&Ds, which usually receive their projects from product roadmaps. “While most of our projects too are connected with product roadmaps ... as we have to search for alternatives, we would be jeopardizing our tomorrow if everything came to us from Product Management,” (Respondent U).

Other departments within the company provide input to the product roadmaps in various ways: A “Production Technologies Directorate” formed in early 2011 focuses on the feasibility of new investments, studies which technologies can be applied in which regions, and provides coordination and consolidation of activities with the related plants. Another function is to be “the eye that looks outside and to the future” (Respondent M). Within this directorate there are four units: production technologies management, energy and environment management, central quality assurance management, and central equipment and moulding. Input is received also from these units in fashioning product roadmaps.

Energy and environment department, formed in 2010, monitors legislation in its areas of interest and makes sure that Arçelik has all the necessary information regarding environmental and energy-efficiency regulations to be able to abide by them. A direct member since 2002 of the European Committee of Domestic Equipment Manufacturers (CECED), which represents the home appliance industry in Europe, Arçelik has automatically become a signatory to the voluntary agreements on energy efficiency along with other European manufacturers. The energy and environment department represents the company in the Environment Council of the Turkish Industrialists and Businessmen’s Association, the Istanbul Chamber of Industry Environment Working Committee, and Turkish White Goods Industrialists Association. The department has interactions with purchasing, marketing, and communication departments within Arçelik (Respondent O).

Central quality assurance department, formed towards the end of 2007, monitors company-wide quality initiatives and conducts consumer research studies regarding “perceived quality” of the company’s products vis-a-vis competitive products, and the data gathered provide input to the product design and development process (Respondent Q).

The industrial design department has a much earlier history at Arçelik. Formed in 1992 under the Assistant General Manager responsible for technology, the department is now reporting to the Assistant General Manager responsible for marketing – a position created in mid-2010. Respondent R noted that establishing the department as early as 1992 indicates the company’s faith in the growing importance of industrial design. As with R&D project groups, here also interdisciplinary thinking is encouraged. “We

do not try to create a washing machine designer. Because we think that [that kind of specialization] would blunt the designer,” noted Respondent R. Therefore, industrial designers are asked to design a different product line in the next project, thus alternating among the various products lines within the company’s product mix. The department works closely with marketing and sales groups in Turkey, central R&D, purchasing groups, suppliers, central quality assurance department, industry fairs and exhibitions, outside design companies, and the sales companies outside of Turkey.

New product and process ideas are captured also through random ways such as meetings with suppliers, visits to industrial fairs, discussions with consultants (Respondents T and U), and visits to the consumer’s home in the company’s worldwide spread market base (Respondent H).

4.5. Challenges for leadership in innovation management

Encouraging innovation at a company that has 19,000 employees - with the acquisition of Defy, this number reaches 21,500 (note from short telephone interview with the company’s corporate communications director in February 2012) - and is growing worldwide with new acquisitions presents challenges to fostering innovation. One means of dealing with that challenge appears to be the establishment of the R&D Innovation and System Development department within the central R&D function.

“Innovation can be managed, but it is not always planned,” pointed out Respondent U. “What you can plan, however, is the creative process – by keeping the channels open. That is what we are trying to do: to open up those channels and offer them to people [as venues for their creativity], to create an awareness, to ingrain that as the company’s DNA, and to make sure that it does not [easily] come out.”

By adding new channels for creative ideas to flow through, the department is aiming to minimize the inherent bureaucracy of a large company that may impede innovation. Innovation and System Development also aims to strengthen through teamworking training cross-functional teams, which are critical in fostering innovation because they facilitate interdepartmental cooperation and decisionmaking by imposing a horizontal structure on an otherwise vertical organization.

Creation and fostering of an innovative organizational culture appears paramount in a company embracing innovation as a strategic imperative. Besides a multidisciplinary approach to innovation management, strategic human resource policies also need to be adopted towards that end. At Arçelik, selection and performance appraisal criteria of R&D personnel are designed to attract and maintain creative individuals. Patents, ability to complete a project on time, the resourcefulness in carrying out the project are some of the criteria used in appraising the performance of R&D personnel (Respondent U). As engineering ingenuity is critical in the creation of innovations, it is important that engineers feel appreciated and are not constrained by economic necessity towards consideration of other positions. Compensation policy at the company is aimed at maintaining pay equity between R&D personnel and management positions at other departments of the company (Respondent S).

Annual invention days, celebrated since 1999, also serve to foster an innovative culture. Furthermore, leadership at R&D assumes less of the role of supervisor and more of facilitator: Here part of the manager’s job is to try to create the right environment for R&D people, making sure that they have the right working conditions [62, p. 95].

Arçelik has also undertaken an organizational restructuring which serves to facilitate decision making. The creation of the position of Assistant General Manager responsible for marketing and the placement of Product Management and Industrial Design under that position send a clear signal that this is a marketing-oriented company where the focus is on the consumer. By various interview accounts, this new marketing organization has indeed facilitated decision making – a key in successful innovation management, as new-product success is greater the earlier the new product is introduced ahead of competition (Madique and Zirker, 1984, as cited in [40]).

Perhaps the most important role for leadership for innovation management is the recognition of the necessity of investment in R&D and company-wide innovation-fostering mechanisms. Here various accounts – published company records as well as interview material – point to founders that instigated international expansion with branded products and supported the necessary investments in quality upgrading, technology development, and innovation management to reach that objective. The cost element is controlled through such procedures as stage-gate project approval, ownership of projects by the manufacturing plants, and consensus-based project adoption which makes all relevant internal stakeholders (such as sales, marketing, and subsidiaries) accountable for the results. Here also, leadership plays a role: When cost-based reservations are made in relation to a project, top management sometimes, while acknowledging the reservation, approves the project nonetheless when that particular product development might help the brand in a critical market (Respondent H).

5. Discussion and conclusion

The above discussion has focused on innovation management at Arçelik to show that innovative capability is essential for an emerging country firm in its effective international expansion efforts especially if the focus is on branded growth. While Arçelik entered into a series of strategic alliances with established global firms, it also revamped its own in-house research and development function. The strong research and development team today has been instrumental in the company's claim of product innovativeness.

Perhaps the most important benefit for an emerging-country firm of a strong R&D function cultivated through two decades of serious investments is the "R&D know-how" (referred to by Respondent U) that is gained at the end. This is both an inimitable and therefore a sustainable competitive advantage that can provide the springboard for future branded international growth through innovative product development and also a strategic asset especially in emerging countries which usually do not have ample resources of that know-how compared to developed countries.

The innovation management system, with its focus on interdepartmental cooperation and several platforms for capturing creative ideas, appears to have a favorable impact on the company's innovativeness, as indicated by the increasing number of patent applications.

Innovation capability, while an important strategic asset, is expensive to develop. As such, it requires a strong commitment by the company's leadership. Well-devised control mechanisms may serve to convince an otherwise reluctant shareholder or manager to approve a critical investment. Some of the cost controlling mechanisms used at Arçelik may therefore serve as examples for other emerging-country firms to adopt. At the same time, it is important to recognize that in emerging countries technology development and innovation capability are largely dependent on the firm's own resources, and unless the

firm has the financial backing of a business group or is a market leader with a dominant share, those capabilities may never be developed. Therefore, there are implications for public policy here: For small and medium-sized enterprises that do not have the benefit of strong business groups behind them or for start-up firms, R&D incentives are needed for those capabilities to be developed and sustained.

The above examination shows the ways in which an internationalizing company that has made innovation part of its strategy is reorganizing so as to foster innovation with the addition of new units, including one dedicated to the management of innovation. While determining the impact of innovation on the company's international market success is beyond the scope of the present study, we have aimed to contribute to the understanding of international expansion by illustrating the effects of corporate entrepreneurial experiences for reforming firms in emerging countries.

Note

The respondents to the interviews used as research evidence in this paper are indicated below with the following designations:

	RESPONDENT'S TITLE / POSITION IN THE COMPANY	INTERVIEW DATE	INTERVIEWING SEQUENCE
1	Manager – International Sales, Africa Division	April 3, 2009	A
2	Industry body representative	Dec. 10, 2009	B
3	Industry body representative	Jan. 29, 2010	C
4	Assistant General Manager / Finance	March 2, 2010	D
5	Assistant General Manager / Marketing	Jan. 24, 2011	E
6	Director – Strategic Planning	Jan. 24, 2011	F
7	Assistant General Manager / Sales – Turkey, Middle East, Africa & Turkic Republics	Jan. 31, 2011	G
8	Director / Sales – Europe, America, Asia Pacific	Feb. 11, 2011	H
9	Arcelik Sales Director - Turkey	June 13, 2011	I
10	Beko Sales Director - Turkey	June 20, 2011	J
11	Manager – International Sales, Africa Division*	June 20, 2011	A
12	R&D Director	June 22, 2011	K
13	Marketing Director - Turkey	June 22, 2011	L
14	Assistant General Manager / Chief Operating Officer	June 28, 2011	M
15	Director – Production Technologies	July 5, 2011	N
16	Manager – Energy and Environment	July 26, 2011	O
17	Director – Supply Chain	July 26, 2011	P
18	Manager – Central Quality Assurance	August 9, 2011	Q
19	Industrial Design Manager	September 15, 2011	R
20	Human Resource Director	September 22, 2011	S
21	Product Group Manager	October 7, 2011	T
22	R and D Innovation and System Development Manager	October 11, 2011	U
23	Director / Sales – Europe, America, Asia Pacific*	October 28, 2011	H
* Was interviewed a subsequent time.			

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