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Internationalization and its consequences on the operations management of a home appliance company

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Abstract: This article analyzes the internationalization process of a home appliance company located in Brazil and the consequences on its operations management. The research involved interviews with one of the company's directors and some managers. This helped to understand which activities have won or lost autonomy and which operations management methods were imposed by the acquiring company.

Key-words: Operations internationalization; Home appliances industry; Mergers and acquisitions.

1. Introduction

Brazil's opening to international trade coincided with the consolidation of its democracy and economic stability, which made it more attractive to foreign investors. This has led to major changes in operations management systems and enabled some Brazilian companies to enter the global market. Conversely, some sectors, such as that of home appliances, began to face competition from abroad and that due the establishment of multinationals in the country, aggravated by unfavorable exchange rates.

This article looks into the internationalization process of a Brazilian home appliance company acquired by a multinational company and the impact of this process on its operations management.

In the 1980s, capital of Brazil's major home appliances manufacturers was mostly national, but this picture was to change in the following decade. National-capital companies such as Continental, Dako, Refripar, Multibras, and Embraco, were bought out by or merged with the world's leading companies in this sector.

The home appliances sector accounted for a significant surplus in the 2000s. In October 2008, the number of workers employed by this sector was about 36,000, dropping to 34,000 in February 2009 due to the financial crisis. The impact of these layoffs led Brazilian government to authorize a reduction in IPI (tax on industrialized products) for home appliances, which lasted almost the entire year of 2009 and ended in February 2010 (Agência Brasil, 2009).

In preparing this article, there were used data obtained through a survey at a multinational home appliance company that was acquired in the 1990s. To this end, the company's director and production/human resources managers were interviewed.

2. Internationalization

The phenomenon known as "globalization" can be analyzed from different perspectives. From the financial perspective, Baumann (1996) claims that there has been an increase in volume and circulation speed of resources, affecting employment, industrial growth, trade balance, and currency exchange in many countries. From the business standpoint, globalization has promoted scale gains, standardized production and administrative techniques, and products with shorter life-cycles.

Moreover, the advancement of information technology and modernization of transport have facilitated communication between countries and promoted reduction of costs and an increase in transportation of large-volume cargoes (Baumann, 1996; Dias, 1996).

According to the United Nations Conference on Trade and Development (UNCTAD, 1994), the globalization process has shown, from the production process perspective, that the value added to products is due to supply structures interconnected worldwide, involving the companies' increased employ of agreements to facilitate the entry of their products in specific markets.

For Furtado (2003), acquisitions often lead to sale or closure of plants, units or divisions, since the activities of the acquiring multinational company are highly vertically integrated. All companies have internal production activities for many raw materials and components needed for their final products. Corresponding corporate functions, e.g., R&D, logistics, marketing, and finance, often remain centralized, while production is directed to countries where wages are low.

3. Internationalization in Brazil

From the 1940s to the 1960s, Brazil resorted to foreign capital to finance its industrialization process. The strategy adopted then was to substitute imports, which was accomplished by increasing domestic production and reducing dependence on imported products to strengthen domestic industry (Bauer, 2002; Souza, 1999). This strategy gained momentum in the 1950s and 1960s, with the help of the Economic Commission for Latin America and the Caribbean (ECLAC). Founded in 1948 by the United Nations, ECLAC would posit industrialization as the chief way to overcome underdevelopment in Latin America, influencing governments and institutions (CEPAL, 2009; Sugimoto, 2006).

In the early 1970s, Brazil had an annual growth above 10%, a period known as the "Economic Miracle." However, as a result of the 1974 and 1979 oil crises, Brazilian trade balance racked up deficits of USD 4 billion a year in the following decade, mainly owing to oil imports. Thus, the country's ability to generate riches to sustain the pace of growth was insufficient (Bauer, 2002; Singer, 1972).

The 1980s in Brazil were considered the "Lost Decade" by reason of its economic stagnation and high unemployment. Its high inflation rates led to a loss of purchasing power and an increase in external debt and fiscal deficit (Troster & Mochón, 1999). At that time the domestic market was closed to imports and investments in product development were relatively low. There were no great concerns about foreign competition, notwithstanding the presence of multinational companies in the country.

The decade of the 1990s was marked by trade liberalization via reduction of import duties. Other factors such as economic stabilization, tax incentives for foreign investment, and exchange rates in which the Brazilian currency was devalued against the American dollar were also fundamental for the internationalization process. This favorable economic environment ended up attracting the interest of foreign companies (Troster & Mochón, 1999).

Inflation stabilization led to a rise in real income and expansion of credit, which promoted internal consumption of some products, including home appliances (Carmeis, 2002).

After opening its market, Brazil's industry began to import new manufacturing technologies and to introduce new product concepts, but many national-capital companies would struggle to increase its profitability and keep pace with an expanding market. Several companies went out of business or had its assets denationalized (Carmeis, 2002). According to Gonçalves (2006), high interest rates and high taxes increased the vulnerability of companies relying on domestic capital.

The end of the 1990s was marked by privatization and the entry of large multinational companies via mergers and acquisitions. As stated by Correia and Laplane (2004), direct foreign investment that entered the country from 1996 to 1999 amounted to USD 87.2 billion. According to KMG (2009), participation of foreign funds in mergers and acquisitions increased by 121% between 1994 and 1999.

In the 2000s, Brazil experienced an acceleration of growth, but at the expense of its trade balance, since production was mainly focused on the internal market (Fligenspan et al., 2011), as happened in the case of the home appliance industry.

4. Home appliances industry worldwide

International production is dominated by large business groups, particularly from the United States, Europe, and China. In the 1990s, the world market for home appliances underwent a restructuring phase. According to Araújo et al. (2004), companies have experienced ownership concentration at the international level and the market is currently dominated by few large companies. Table 1 presents the ten largest companies in this industry sector worldwide, based on a 2001 ranking, updated with information from the press, specialized pages, and corporate sites.

Company	Country of Origin	Position in 2001	Some trade names
Whirlpool	USA	1	Whirlpool, Maytag, Amana, Jenn-Air, KitchenAid, Roper, Bauknecht, Ignis, Brastemp, Consul
Electrolux	Sweden	2	Electrolux, Frigidaire, Westinghouse, AEG, Corbeirò, REX, Zanussi
LG	Korea	Not on the list	LG
General Electric	USA	3	GE, Dako
Haier	China	5	Haier
Bosch-Siemens (BSH)	Germany	4	Bosch, Siemens, Gaggenau, Neff, Thermador, Constructa, Viva, Ufesa, Balay, Linx, Pitsos, Profilo, Coldex, Continental
Liebherr	Germany	10	Liebherr
Miele	Germany	8	Miele
Indesit	Italy	7 (Merloni)	Indesit, Ariston
Fagor	Spain	Not on the list	Fagor, Edesa, Aspes, Mastercook, Brandt, DeDietrich, Thomson, Vedette, Ocean, SanGiorgio, Sauter, Samet

Source: Cunha (2003), printed press, companies' websites, and specialized pages on the Internet.

Table 1: Largest home appliances companies worldwide (2006).

Major international groups have found, via direct investments in companies in developing countries, that they can achieve greater efficiency through rationalization and modernization of local production, gathering the benefits of common ownership of geographically dispersed activities and reducing costs by means of economies of scale and scope (Araújo et al., 2004).

Brazil was swept up by this process of internationalization, which brought a lot of changes to the home appliances sector, as shown in the section below.

5. Home appliances industry in Brazil

According to Araújo et al. (2004), Brazil’s home appliances industry started its operation circa 1940, through a policy of import substitution, as aforementioned.

In the 1970s, there was a small number of large national family-owned businesses. At that time, foreign ownership in the home appliances sector was restricted to a U.S. company, Whirlpool, affiliated to the Brasmotor group. There was also the predominance of a major manufacturer in the segment of hermetic compressors, Embraco, acquired in mid-1970 by Multibrás (Gitahy et al., 1997). In addition to Embraco, there was also a compressors manufacturing company, Sicom (Gitahy et al., 1997; Silva Junior, 2005).

In the 1970s and 1980s, the main strategy adopted by these companies was based on sectoral diversification—via acquisitions of companies outside the industry—and intra-sectoral—via market segmentation by income (Gitahy et al., 1997; Araújo et al., 2004).

The abovementioned economic context led to denationalization of Brazil’s leading home appliances companies as well as of suppliers of compressors. The 1990s was marked by the entry of foreign companies. New plants were opened, employing newer technologies. Companies acquired equipment in order to renovate existing plants and increased their investment in productivity and quality programs (Gitahy et al., 1997).

Cunha (2003) sustains that acquisition of Brazil’s companies was favored by the fact that these companies already possessed knowledge about domestic consumers because of their strong network of local suppliers, especially of hermetic compressors, their lower production costs, local policies attracting new investments, and the country's reduced economic risk due to the aforementioned macroeconomic stabilization mechanisms. Foreign investors were also attracted by the size and potential of Brazil's domestic market and its long border with other South American countries with which it has commercial ties. Thus, companies wanted to sustain or enhance its competitiveness and weaken that of competition at the international level, thereby limiting the entry of new companies in the sector (Cunha, 2003; Nichols & Cam, 2005).

Mergers that took place among national and international companies constitute another aspect that stands out in the transformation of the home appliances industry. Table 3 illustrates the dynamics of mergers and acquisitions.

Partners/buyers	Country of origin	Companies	Year	Type of business deal
Tecumseh	USA	Sicom	1984	Acquisition
Bosch-Siemens	Germany	Continental	1994	Acquisition
General Electric	USA	Dako	1996	Acquisition
Electrolux	Sweden	Refripar	1993	Technology transfer agreement
Electrolux	Sweden	Refripar	1994	Acquisition of 10% of common shares
Electrolux	Sweden	Refripar	1996	Acquisition
Whirlpool	USA	Multibras	1997	Equity control
Whirlpool	USA	Embraco	1997	Equity control
Whirlpool	USA	Brascabos	1997	Equity control
Samsung	Korea	CCE	1995	Technology transfer agreement
Merloni	Italy	CCE	1996	Technology transfer agreement
Candy	Italy	Enxuta	1996	Import
SEB	France	Arno	1997	Acquisition
Moulinex	France	Mallory	1998	Equity control
LG Electronics	Korea	-	2001	Installation of own factory
Gree	China	-	2001	Installation of own factory
Mabe	Mexico	GE-Dako	2003	Equity control
Mabe	Mexico	CCE	2004	Acquisition
LG Electronics	Korea	-	2005	Import
Mabe	Mexico	Bosch-Siemens	2009	Acquisition

Source: Araújo et al., 2004 and corporate websites.

Table 2: Mergers and partnerships in Brazil's home appliances production chain in the 1990s and 2000s.

According to Gitahy et al. (1997), multinationals set up complete product lines, e.g., Bosch-

Siemens and General Electric maintained both their own brands—aimed at the market with high purchasing power—and their acquired brands, Continental and Dako, respectively—intended for lower income-level groups. This segmentation was also followed by Whirlpool, by means of acquired brands, e.g., Brastemp is a little more expensive than Consul, and both are well consolidated in the domestic market. Electrolux adopted the strategy of using different models of the same brand. To meet the needs of the high-income market, companies have increased product differentiation and sophistication and imported items with higher added value.

According to Araújo et al. (2004), companies like Multibrás and Embraco have stood out in the market as a result of the development of product/process technologies aimed at both the domestic and international markets, thereby showing to be increasingly less dependent on technologies developed by their parent company, Whirlpool.

6. Impact of acquisition on a home appliances company

As reported by the managers interviewed, the primary purpose of their parent company in acquiring plants in Brazil was to expand its brand in the world and especially in Latin America. The parent company understood that there were market opportunities in Brazil, because of its large number of consumers as well as its great potential for growth. Brazil is a developing country and its macroeconomic stability provided credibility for their company to invest in this market.

In the period following their acquisition in the 1990s, the Brazilian plants in question used to report to the board of directors in the United States, but this has changed since the 2005. Nowadays, Brazil has its own board of directors, which reports directly to the headquarters. Major investment decisions have focused on renewing the product line. A product design, research, and specification department was created, which encompasses managers of all plants installed in the country.

An important post-acquisition activity was the offering of training *in loco*, with the participation of professional development consultants, leaders, and executives, from top administration to the shop floor. The role played by managers in the change process was regarded as fundamental. For that reason, their training and commitment were diligently promoted. Equipment was renovated and leaders of the older plants were replaced. New functions were created, and for some, there is even a shortage of professionals in the market.

The strategic planning of the company under investigation is centralized at the headquarters and the plants in Brazil should follow its guidelines. Its product mix planning is carried out by a centralized marketing area and forwarded to plants around the world, which in turn adapt it to local contexts and corresponding demands.

The plant visited, hereinafter referred as Plant A, is located upstate São Paulo, Brazil. This plant used to hit record production of cheaper products. These products—called “regular” products—were made of simple materials such as glass wool. However, when production of components for refrigerators changed, especially after the introduction of polyurethane foam, the plant lost competitiveness and nearly shut down.

In order to take advantage of the plant’s productive capacity, the production line of refrigerators was transferred to another plant, regarded as more up to date, which already employed materials such as polyurethane and CFC-free gases (CFC or chlorofluorocarbon gas attacks the ozone layer and, as a result, has been banned in Brazil and elsewhere). In return, Plant A received the production lines of washers, freezers, and later on, stoves.

As a result, Plant A eventually pulled through. In 2008, it produced 1.8 million units, but its idleness rate was approximately 48%. The plant responsible for the production of refrigerators produced 2 million units, with an idleness rate of 2%. These figures show Plant A's growth potential, but at the same time indicate that it may still be under threat if it does not achieve productivity indicators compatible with those of other sister plants in Brazil and worldwide. There used to be approximately 4,000 workers at Plant A before acquisition; this number is now down to 1,700, 1,400 of which being in production. Cleaning, safety, and handling tasks are performed by around 300 outsourced workers.

7. Conclusions

The home appliances industry has undergone a process of internationalization and ownership concentration in recent decades, which implies that international production is now controlled by a small number of large companies. During this process, investments were directed to developing countries, which was conducive to a reconfiguration of Brazil's industry.

This industry—whose development in Brazil began in the 1940s—has followed a process of economic internationalization. This industry currently comprises a handful of large companies belonging to leading multinationals. National capital is still present in smaller companies, whose products generally are simpler and intended for consumers with lower purchasing power.

Management of large companies, in turn, has undergone several transformations resulting from ownership changes such as the adoption of new technologies and design/product concepts. After acquisition, multinationals seek to streamline the acquired company's organizational structure, thus reducing the number of employees and eventually shutting plants down so as to reduce fixed costs, which are high in this activity. The plant under investigation, which had been once in danger of being shut down, managed to survive the ownership change. To ensure its continuity, its entire line of products was changed, its number of employees was reduced, and it sought to conform to the guidelines set by its headquarters.

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