
The strategic relevance of the Brazilian subsidiaries of multinational corporations

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RESUMO

Relevância estratégica das subsidiárias brasileiras de corporações multinacionais

O propósito neste artigo é identificar os fatores organizacionais que propiciam a formação de subsidiárias com maior relevância estratégica. Relevância estratégica é a terminologia escolhida para referenciar a importância estratégica diferenciada que determinadas filiais possuem em relação às demais, como uma forma de garantir a vantagem competitiva global. Os fatores organizacionais que teoricamente influenciam a relevância estratégica são as competências organizacionais da subsidiária, a orientação empreendedora, a autonomia das subsidiárias e a integração entre matriz e subsidiárias. Um estudo exploratório foi realizado com uma amostra de 118 das mil maiores subsidiárias de corporações estrangeiras no Brasil. Os principais resultados apontam que a relevância estratégica das subsidiárias estrangeiras no Brasil depende, em especial, das competências das subsidiárias quanto à interface com a matriz, da comunicação entre subsidiárias e matriz em termos de quão bem as competências das subsidiárias são compreendidas pela matriz, e da orientação empreendedora concedida pela matriz às subsidiárias.

Palavras-chave: papel das subsidiárias, corporações multinacionais, mercados emergentes, subsidiárias estrangeiras, relevância estratégica.

1. INTRODUCTION

The phenomenon of foreign direct investment (FDI) in Brazil is not recent. Many of the major multinationals currently active in the domestic market entered it in the early twentieth century, such as GE (1919), Ford (1919), GM (1929), Rhodia (1919), Bayer (1920), Unilever (1920), P&G (1930), and Belgo Mineira (1921) (SUZIGAN and SZMRECSANYI, 1994). However, Brazil's

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significant FDI cycles began at the end of World War II. The country has had four FDI cycles. The first began shortly after the war, as part of the process of “Industrialization by Import Substitution.” The second, from 1967-1973, became known as the Brazilian economic miracle. The third began in 1974, with implementation of the Second National Development Plan, which was launched to adjust Brazil’s economy to the two oil shocks (1973 and 1980). During these three cycles, market opportunities, along with low labor and raw material costs, were the main factors causing multinationals to work in a country such as Brazil (MARTINS, 1975; VIEIRA and CAMARGO, 1976; SANTOS, 1977; PLASSCHAERT, 1989).

The fourth cycle is characterized by the great FDI wave of the 1990s (CHUDNOVSKY and LOPEZ, 1999; LACERDA, 2003; MORAES, 2003). The FDI inflow in such markets rocketed from some US\$30 billion a year in 1990 to US\$224 billion a year in 2000 (LACERDA, 2001). In Brazil, the FDI flow, which had been around US\$1 billion in the early 1990s, rose sharply to US\$30 billion by the decade’s end (LAPLANE and SARTI, 1997). Between 2001 and 2006, FDI averaged some US\$20 billion, but by 2007 and 2008 it had reached approximately R\$34 billion (BCB, 2008). During this time, the FDI driver was the pursuit of efficiency, by means of global production chains (FLEURY, 1999) and by the quest for strategic resources via the dispersion and decentralization of innovation activities (GOMES, 2006). In other words, the quest sought efficiency and strategic assets (DUNNING, 1993).

Thus, if in the first three cycles the multinationals’ strategies regarded their subsidiaries in emerging markets as market exploration units and as implementers of strategies developed at headquarters, the strategic objectives’ change that occurred in the fourth cycle caused the multinationals’ strategies to regard their foreign subsidiaries as extensions of their strategic capabilities and resources distributed around the world. This meant that multinationals’ strategies now considered their subsidiaries as extensions that could improve global production efficiency by means of decentralized services and manufacturing operations (FLEURY and FLEURY, 2003a; 2003b). The subsidiaries started performing higher added value activities, which were associated with product and process innovations, represented by the decentralization and location of R&D activities in subsidiaries in emerging markets, such as Brazil (GOMES, 2006; BOEHE, 2008). A number of other subsidiaries acquired more strategic responsibilities by becoming regional headquarters for certain product lines, for instance, or determining the strategies of those countries under their responsibility (BORINI, OLIVEIRA JR. and PROENÇA, 2005). In some cases, they had global mandates, being responsible for investments in the development and production of full product lines (OLIVEIRA JR. and BORINI, 2006).

This situation reflects a change in the role of foreign subsidiaries in emerging markets, specifically in Brazil. But which organizational factors drive this strategic change in foreign

subsidiaries’ roles? Most articles and studies focus on elements of the influence of the competitive environment in the development of innovative subsidiaries (QUADROS *et al.*, 2001; ARIFFIN and FIGUEIREDO, 2003; FRANCO and QUADROS, 2003; ANPEI, 2004; BOEHE and ZAWISLAK, 2007), or else they limit themselves to characterizations of the types of subsidiaries found in terms of the innovations carried out (GOMES, 2006; OLIVEIRA JR. and BORINI, 2006; BOEHE, 2007a; 2007b) or of the operations conducted within the value chain (FLEURY and FLEURY, 2003a; 2003b).

Studies about foreign subsidiaries in developed countries show the importance of organizational factors to the relevance of these foreign subsidiaries (BIRKINSHAW, 1997; BIRKINSHAW, HOOD and JONSSON, 1998; BIRKINSHAW and NOBEL, 1998; O’DONNEL, 2000; BIRKINSHAW, 2001; FROST, BIRKINSHAW and ENSIGN, 2002). By organizational factors, we mean the subsidiary’s autonomy, the integration of subsidiaries with their headquarters, the entrepreneurship level that the headquarters grant their subsidiaries, and the competencies developed by these subsidiaries. However, these studies do not look into whether these factors carry the same weight and importance in foreign subsidiaries in emerging markets, such as Brazil. This is a gap in the studies about this field that this study intends to fill, by investigating the organizational factors that determine the role of foreign subsidiaries in Brazil.

With a view to eliminating this gap from the area’s studies, this article aims at identifying the organizational factors that further the establishment of subsidiaries that have a higher level of strategic importance, which we will refer to, in this paper as Strategically Relevant Subsidiaries (SRSs). To this end, 118 of the largest foreign subsidiaries in Brazil were investigated. These were the result of a survey involving the 1,000 largest subsidiaries of foreign firms in Brazil.

This article starts with a description of the subsidiaries’ roles and subsidiary evolution, in order to situate the SRSs within the context of the multinationals’ strategies. This is followed by an analysis of the importance of the organizational factors responsible for the establishment of SRSs, namely: the competencies developed by the subsidiaries, the multinational’s entrepreneurial orientation, and the dilemma of headquarters/subsidiary autonomy and integration. The study of these factors gives rise to hypotheses to be tested in the sample of researched firms. Therefore, the methodology consists of describing the survey that was conducted as well as the construction of the variables used, in order to test assumptions that will probably indicate the importance and the weight of the different organizational factors in the establishment of SRSs in Brazil. The conclusion discusses the article’s contribution to the study of foreign subsidiaries, i.e., thoughts on the challenge faced by foreign subsidiaries when it comes to developing strategic relevance in emerging countries such as Brazil.

2. THEORETICAL FRAMEWORK

This section begins by putting into context the theoretical discussion of subsidiaries' role. The aim is to show subsidiaries' different roles and to structure the notion of what we have called Strategically Relevant Subsidiaries (SRSs), i.e., those whose role is strategic to the multinationals operating in Brazil. The assumption is that these SRSs are a recent phenomenon in Brazil and that they therefore deserve a detailed analysis.

2.1. Strategically relevant subsidiaries

Multinationals' traditional models of strategic operation, known as the global model and the multidomestic model (BARTLETT and GHOSHAL, 1992), assume that the role of foreign subsidiaries is to work, respectively, as a replica of its headquarters, geared toward exploiting the firm's advantages (VERNON, 1966; DUNNING, 1993), or as a totally independent unit, geared toward local advantages (VERNON, 1966; DUNNING, 1993). This model is still predominant in the strategic *modus operandi* of many multinationals and of their foreign subsidiaries. However, studies on multinational enterprise management and strategy suggest an evolution in multinationals' subsidiaries, albeit a gradual and non-predominant one (BIRKINSHAW, 2001; PATERSON and BROCK, 2002).

This evolution is aligned with the transnational strategy of those multinationals (BARTLETT and GHOSHAL, 1992; NOHRIA and GHOSHAL, 1997) whose foreign subsidiaries continue to play strategic roles, as determined by their headquarters (VERNON, 1966; JOHANSON and VAHLNE, 1977), i.e., following the precepts of the traditional global and

multidomestic models. However, subsidiaries' roles are now also determined by two other factors. On the one hand, the subsidiary's competitive context — environmental determinism (PORTER, 1990; ANDERSSON, FORSGREN and HOLM, 2002) — and, on the other, each subsidiary's own strategic management — the subsidiaries' choice (BIRKINSHAW, 1997; BIRKINSHAW and HOOD, 1998; BIRKINSHAW, HOOD and JONSSON, 1998).

Therefore, subsidiaries, from a transnational strategic perspective, may have different roles, determined jointly by three factors: headquarters' decisions, environmental determinism and the subsidiaries' own strategic choices. Several studies have evidenced this strategic change among multinationals, so that it is no longer only the decisions of the headquarters that prevail in determining the role of subsidiaries. The typologies of White and Pointer (1984), and Bartlett and Ghoshal (1992) drew attention to the allocation of the resources. D' Cruz (1986), Jarillo and Martinez (1990), Roth and Morrison (1992), and Birkinshaw and Morrison (1995) initiated studies on the importance of subsidiaries' strategies, which have been confirmed in a series of other studies (BIRKINSHAW and MORRISON, 1995; BIRKINSHAW, 1997; BIRKINSHAW and HOOD, 1998; BIRKINSHAW, HOOD and JONSSON, 1998; FROST, BIRKINSHAW and ENSIGN, 2002).

A summary of these typologies is proposed in table 1, which classifies subsidiaries according to a rising order of strategic importance.

The geographical scope of Level 1 subsidiaries is usually limited to a single country and generally goes hand in hand with a very limited range of product lines and processes. The

Table 1
Subsidiaries' Strategies

	Level 1	Level 2	Level 3	Criteria
White and Pointer (1984)	Headquarters in miniature	Rationalized manufacturing / Products specialist	Global leader	Localization of resources and capabilities
D'Cruz (1986)	Headquarters' branch	Globally rationalized	Global product leaders	Decision-making and geographic autonomy
Jarillo and Martinez (1990)	Autonomous	Receptive	Active	Degree of global integration of the value chain activities
Bartlett and Ghoshal (1992)	Implementer	Contributor	Strategic leader	Importance of site and complexity of resources and capabilities
Roth and Morrison (1992)		Globally rationalized	Global leader	Degree of centralization and specialization of the subsidiaries
Birkinshaw and Morrison (1995)	Local implementer	Specialized contributor	Global mandate	International responsibility

Source: Matamoros (2001).

function of a subsidiary of this level is to reproduce the same products and processes as the headquarters and in some cases merely to market the products developed by the headquarters, with a few adaptations. There is no entrepreneurial guidance from headquarters for the local development of initiatives and the scope of organizational competencies is strictly local or dependent on the headquarters.

Level 2 subsidiaries specialize in certain functions or activities, operate in an integrated manner and provide support for other activities that the headquarters or other subsidiaries engage in. As they are oriented to support activities, these subsidiaries are characterized by a low level of entrepreneurship and a high level of interdependence relative to other firms in the network. However, because of this integration, these subsidiaries' organizational competencies are comparable to those of other units in the corporate network, as these branches work as global platforms for global operations.

Finally, Level 3 subsidiaries are those that undertake the main functions and responsibilities and that, in conjunction with the headquarters, have a role of greater strategic relevance for the corporation. Their activities must be globally integrated, but they are responsible for managing their own strategies. Level 3 subsidiaries are the ones that come closest to what has been called, in this article, Strategically Relevant Subsidiaries (SRSs). This is the term chosen to reflect the special strategic importance of such subsidiaries in relation to the others, as a means of highlighting this relevance for the multinational corporation. As table 1 shows, SRSs are similar to subsidiaries that have a global mandate, a global leader, a global product leader, and are active, with a strategic leader and global command.

SRSs stand apart strategically because they create value for the corporation and have global competitiveness, to the point of their competencies and strategies being recognized and used by the entire corporation (BARTLETT and GHOSHAL, 1998; BIRKINSHAW, HOOD and JONSSON, 1998). These subsidiaries operate in an integrated manner with their headquarters when it comes to strategy, but they have the freedom to make local decisions (BIRKINSHAW, HOOD and JONSSON, 1998; BIRKINSHAW and NOBEL, 1998; O'DONNELL, 2000). Their entrepreneurial orientation, encouraged by the headquarters along with the development of unique competencies, allows these subsidiaries to create value by means of product and process innovations that can be used by the global corporate network (RUGMAN and VERBEKE, 2001; FROST, BIRKINSHAW and ENSIGN, 2002).

Given the relative importance of SRSs in relation to the other subsidiaries and concerning certain indicators of internal facts that allow this role to be established and maintained by foreign subsidiaries, it is still necessary to understand whether the same factors that are important for SRSs in developed countries are repeated in emerging markets such as Brazil. The next section raises hypotheses about the importance

of internal factors for establishing and maintaining the status of being an SRS. These will be empirically tested with the sample of foreign subsidiaries established in Brazil.

3. HYPOTHESES

This section presents hypotheses regarding the organizational factors that influence the establishment and maintenance of SRSs in Brazil. The factors discussed are, specifically, those evidenced in studies of SRSs in developed countries, namely: the competencies of the subsidiaries, the entrepreneurial orientation granted by the headquarters, and autonomy and integration in the headquarters/foreign subsidiary relation.

3.1. Organizational competencies of the subsidiaries

From the resource-based view (WERNEFELT, 1984; BARNEY, 1991) and according to the strategic concept of multinational corporations with a differentiated network structure (BARTLETT and GHOSHAL, 1992; NOHRIA and GHOSHAL, 1997), the competencies of a multinational can be developed both at headquarters and at its subsidiaries. The competitive advantage of multinationals ceases to come only from its headquarters, and can result from the articulation and mobilization of competencies developed by the subsidiaries (BIRKINSHAW, 1997; BIRKINSHAW and HOOD, 1997; BIRKINSHAW and HOOD, 1998; BIRKINSHAW, HOOD and JONSSON, 1998).

This reflects an evolution in the strategic models for multinationals, as advantages cease to derive exclusively from the competitive and comparative advantages of its headquarters (JOHANSON and VAHLNE, 1977; PORTER, 1986; DUNNING, 1993), or from the comparative advantage of its foreign subsidiaries (VERNON, 1966; DUNNING, 1993). Thus, competitive advantage also results from the competencies developed thanks to the resources and capabilities of the foreign subsidiaries (BIRKINSHAW, HOOD and JONSSON, 1998; RUGMAN and VERBEKE, 2001).

Depending on the resources and capabilities of a given subsidiary, it may be of greater or lesser relevance for the multinational and may be managed in various ways, which implies that the internal configuration of subsidiaries can vary considerably (BARTLETT and GHOSHAL, 1992; NOHRIA and GHOSHAL, 1997). The subsidiaries' own resources and capabilities turn into competencies when, having been coordinated and grouped, they give rise to processes and routines that differ from those of the corporation's other subsidiaries (MILLS *et al.*, 2002), i.e., they become rare processes and routines that are hard to imitate and to replace, and that add value (BARNEY, 1991).

However, not all competencies created at a subsidiary can be easily used by the multinational. Such competencies can be

local or non-local. A local competency is one that it is difficult to transfer to another unit and whose applicability is local, i.e., it is only useful for the foreign subsidiary that developed that particular competency. Non-local competencies are those that are easy to transfer and that are global in scope, i.e., that can be used by the entire multinational (HOLM and PERSERSEN, 2000; MOORE, 2001; RUGMAN and VERBEKE, 2001).

Thus, besides the organizational competencies of R&D and manufacturing, which are traditionally aligned with the role of SRSs (BIRKINSHAW and MORRISON, 1995), the literature stresses the importance of SRSs developing interface competencies between the subsidiary and headquarters, i.e., competencies that are responsible for the sharing of the capabilities developed at the subsidiary with other corporate network units (BIRKINSHAW, HOOD and JONSSON, 1998). This competency becomes even more important because the distinctive aspect of SRSs is that their capabilities can be transferred to other subsidiaries or even to the headquarters (FROST, BIRKINSHAW and ENSIGN, 2002). Recent studies explain this, by showing that the evolution of the subsidiaries' roles depends both on the development of competencies during the course of the firm's history (ARAUJO and REZENDE, 2003) and on the relations between the subsidiaries that compete internally for leading the most strategically important activities.

Therefore, when interface management competency is present, it ensures better strategic alignment between the subsidiary and the other network units, besides enabling a better negotiation of the transfer of competencies generated within the subsidiaries to other subsidiaries or even to headquarters. The outcome of the alignment and transfer of competencies is that the SRS acquires enhanced internal competition powers in relation to the multinational's other subsidiaries and maintains its SRS status (BIRKINSHAW and LINGBLAD, 2005), since the competencies developed at the subsidiaries can be transferred to other units (RUGMAN and VERBEKE, 2001). Thus, it becomes explicit that competency in managing the subsidiary-headquarters interface is crucial for acquiring the role of an SRS, which implies that:

H1: Strategically Relevant Subsidiaries (SRSs) are associated with competent management of the subsidiary-headquarters interface.

3.2. The subsidiary's entrepreneurial orientation

The focus of the analysis pertaining to an entrepreneurial orientation is corporate entrepreneurship, i.e., the entrepreneurship disseminated within the corporation that enables its personnel to take entrepreneurial actions that result from the encouragement and visionary nature of each person in the company (FILLION, 2006). This visionary nature can be defined as a set of visions regarding new businesses, products and pro-

cesses that are developed over the years until the emerging views become harmonized with a central view of the business, product or process that is to be undertaken. This is a process that calls for time and a corporate culture that allows room for corporate entrepreneurial views. An entrepreneurial spirit demands from an employee much more space and normal working time, and only materializes if the institution reciprocates by supporting entrepreneurial actions (FILLION, 2006).

Thus, the following are typical of an entrepreneurial orientation: senior management support for and experience of entrepreneurial activities, with a view to establishing a stimulating organizational climate for new practices and business ideas (BIRKINSHAW, 1997); and a perception of risk as a positive attribute, provided it is well calculated (BIRKINSHAW, 1997; BIRKINSHAW, HOOD and JONSSON, 1998).

If one extends this thought process, one can say that a subsidiary's entrepreneurial orientation is related to a positive predisposition of its employees to undertake the new business opportunities that the subsidiary can conduct. It involves issues of trust and delegation of decision-making responsibilities by the subsidiary's senior management (BIRKINSHAW and HOOD, 1997), which implies orienting the use of resources and capabilities toward a proactive strategy. Much more than creating a new business or a new combination of production and processes, entrepreneurial activity suggests that the firm is willing to undertake a proactive activity in the face of a decision-making environment that involves risks (BIRKINSHAW, 1997).

Such an entrepreneurial orientation of the subsidiary is essential for the evolution of the subsidiary's strategic relevance (BIRKINSHAW and HOOD, 1998), because, if the subsidiary wants to create value for the organization, it is essential that it innovates. To this end, headquarters must grant an entrepreneurial orientation, encouraging the body of executives to develop new processes, routines, products or management techniques (BIRKINSHAW, 2001).

Thus, SRSs are expected to get more incentives for engaging in entrepreneurial activities than other subsidiaries that have a more minor strategic role. This implies that:

H2: Strategically Relevant Subsidiaries (SRSs) have a higher level of entrepreneurial orientation than the multinational's other subsidiaries.

3.3. Autonomy and integration

Studies on the evolution of subsidiaries' role (BIRKINSHAW and HOOD, 1998) show that autonomy to develop their competencies and initiatives can yield positive results for the subsidiary even before its headquarters recognize it is an SRS. However, one must stress that the subsidiary's autonomy must come hand-in-hand with specialized resources, with normative integration, and with very frequent communication of this subsidiary with

other subsidiaries and with headquarters (BARTLETT and GHOSHAL, 1992; NOHRIA and GHOSHAL, 1997).

This is so because the greater the subsidiary's strategic relevance, the lower its autonomy should be, as it will tend to diminish in favor of the integration of the subsidiary's activities with the corporate network's other units. Integration becomes essential for the strategic alignment of the subsidiary with the processes, activities and strategic directives of headquarters and of other subsidiaries (FROST, BIRKINSHAW and ENSIGN, 2002; REZENDE, 2006).

A corporation does not always look favorably upon great autonomy and, when this is not a factor that is responsible for creating the multinational's competencies, it may even be harmful (MOORE, 2001). With too much power, the subsidiary may develop projects that are not aligned with the corporation's objectives, thus generating agency problems (O'DONNELL, 2000).

On the other hand, a strong relationship between the headquarters and the subsidiaries can actually be a form of control and a way to limit the latter's innovation and strategic direction activities. However, integration may also be characterized by strong communication between headquarters and subsidiaries, this being essential to reduce uncertainties and disseminate corporate know-how (NOHRIA and GHOSHAL, 1997). The stronger the working relation and the degree of normative integration between headquarters and subsidiaries, the lower the chance of the subsidiary operating in a way that is unaligned with corporate strategies, or that falls short of the organizational competencies required to maintain its strategic position within the corporation (BIRKINSHAW and MORRISON, 1995; NOHRIA and GHOSHAL, 1997).

Thus, one can assume that the ideal SRS structure is linked to a low level of formalization, a moderate level of centralization and a high level of socialization with the multinational's other units. Moreover, high standards of communication with external partners and with headquarters and other subsidiaries may suggest the existence of an outstanding capacity to process information and knowledge (BIRKINSHAW and NOBEL, 1998).

This integration of a subsidiary with other subsidiaries and particularly with the headquarters is the sole means of a subsidiary being recognized by the corporate headquarters and for it to enable its innovations and competencies to be understood and used throughout the corporation. Thus, a third hypothesis arises.

H3: Strategically Relevant Subsidiaries (SRSs) maintain strong relations with the corporate headquarters and with the multinational's other subsidiaries in terms of integration.

4. METHODOLOGY

This section describes the details of the survey conducted with the 1,000 largest foreign subsidiaries in Brazil, as well as

the variables researched and used in the development of the results.

4.1. The research

The idea was to analyze the hypothesis raised, using a representative investigation of multinationals' subsidiaries in Brazil as the starting point. To this end, a survey was conducted, of the quantitative, descriptive kind (CRESWELL, 1994). We selected the survey methodological alternative because of the need to generate a broader understanding of the characteristics of the Brazilian subsidiaries of foreign enterprises. The sample was chosen based on company size, resorting, for this purpose, to the universe of the 1,000 largest foreign capital multinationals active in Brazil. This is a non-random, convenience-based sample or, in other words, an intentional sample (MARCONI and LAKATOS, 1986), which is therefore unsuitable for certain generalizations, as the researcher selected a particular group that he feels was important within the context that is being studied (FREITAS *et al.*, 2000), in this case, the largest multinationals operating in Brazil. Therefore, the results presented herein only represent large multinationals, i.e., those whose gross revenues exceed R\$60 million.

The universe of the 1,000 largest foreign-capital firms in Brazil, in terms of annual invoicing, was obtained by acquiring a mailing list from the newspaper, *Gazeta Mercantil* (2002).

The data from the study in question were collected by means of questionnaires posted to the most senior executive (president, CEO, vice-president).

Though we sent 1,000 questionnaires to subsidiaries, after follow up phone calls we found that the mailing list had some repeated addresses. As a result, the number of subsidiaries in our research universe was reduced to 890. Additionally, 37 questionnaires did not reach their destination, due to address problems or to subsidiaries having changed addresses, which caused the final number to be 853 subsidiaries. The subsidiaries were given 60 days to respond.

Approximately 14% responded (118 questionnaires). This percentage of responses, as compared to other international studies that have researched foreign subsidiaries, was slightly below the expected average return, which is around 20% (BIRKINSHAW, 1997; BIRKINSHAW, HOOD and JONSSON, 1998; BIRKINSHAW and NOBEL, 1998; FROST, BIRKINSHAW and ENSIGN, 2002). However, this figure is common for business administration surveys in Brazil, where the culture of companies' participation in this type of survey is weak, especially when senior management is involved (FREITAS *et al.*, 2000).

4.2. Building the variables

The research resorted to closed questions that were structured and scaled from 1 (totally disagree) to 7 (strongly agree). The dependent variables (BIRKINSHAW, HOOD and JONSSON, 1998), created to represent the SRS, were:

- whether the subsidiary contributes to creating value within the multinational;
- whether the subsidiary is globally competitive in its field of action; and
- whether the headquarters consider the subsidiary to be strategically important.

With the mean of these three variables, a fourth variable was created, one that is more fundamental for the study and that represents the strategic relevance of the subsidiaries. This was called “relevance” ($\alpha = 0.7369$).

Seven variables were developed, the aim of which was to check the competencies of foreign subsidiaries in Brazil (BIRKINSHAW and MORRISON, 1995; BIRKINSHAW, HOOD and JONSSON, 1998). Using a 1 to 7 scale, the variables measured to what extent the competencies were above average in relation to the competencies of the corporation’s other subsidiaries. Competencies were verified in the following areas: R&D, production, sales, marketing, management of international activities, management of the interface with headquarters, and innovation ($\alpha = 0.8608$).

Regarding entrepreneurial orientation, five variables were researched (BIRKINSHAW and MORRISON, 1995; BIRKINSHAW, 1997). These variables were also shown on a 1 to 7 scale, having been classified according to the extent to which the subsidiaries agreed or disagreed with statements as to:

- senior management support for entrepreneurial activities;
- senior management’s experience with innovation activities;
- support for individual risk decisions; or
- calculated risk decisions; and
- whether the subsidiary regards “assuming risks” as a positive attribute ($\alpha = 0.8569$).

Subsidiary-headquarters communication and integration (NOHRIA and GHOSHAL, 1997) were also measured on a scale from 1 to 7, the subsidiaries answering whether they agreed or disagreed with the following elements:

- the existence of a strong subsidiary-headquarters working relation;
- the sharing of information by the subsidiary’s executives with their headquarters’ counterparties; and
- whether the headquarters’ executives understand the subsidiary’s competencies properly ($\alpha = 0.7282$).

To assess the subsidiary’s autonomy (BIRKINSHAW and MORRISON, 1995), eight variables verified in which unit decisions were made, i.e., whether they were made: by the subsidiary itself; by a regional subsidiary; or by the headquarters. The variables concerned decision-making autonomy regarding:

- design changes in the products and services;
- the hiring of senior executives;
- the outsourcing of activities;

- entry into new markets;
- approval of the annual budget;
- the introduction of new products;
- organizational changes; and
- changes in production processes ($\alpha = 0.6430$).

The data was analyzed with the help of SPSS, version 13.

4.3. Profile of the sample

Concerning the sample’s structure, 55% of it consists of industrial sector firms and 32% of service sector firms, while the rest are enterprises in the agribusiness and financial sectors. The foreign subsidiaries researched belong to multinationals from 21 countries. Most of the subsidiaries (32%) belong to American firms, 8.5% to Italian firms, 8.5% to German firms, 7% to Spanish firms and 6% to English firms.

Total sales amount to R\$864 million/year, on average. Subsidiaries that invoice more than R\$1 billion account for 18% of the sample. On average, 19% of their invoicing comes from sales to clients that are abroad. Their main clients are in Mercosur and in Latin America.

As for how these enterprises established themselves in Brazil, some 52% chose to make an acquisition, whereas the rest made greenfield investments. About 12% of the firms set up affiliates in the country before 1950; another 13%, in the 1950s; 5%, in the 1960s; 12%, in the 1970s; and 8% in the 1980s. The sample faithfully represents the substantial entry of multinationals during the 1990s. Half of the subsidiaries were established in Brazil in this period. If up until then the favorite way of entering the country consisted of greenfield investments in new subsidiaries, acquisitions became predominant (68%) in the last decade.

Concerning organizational competencies, only 33% of the subsidiaries agreed with the aspect “have distinctive organizational competencies”. It is important to highlight that many subsidiaries do not engage in any R&D (26%), management of international activities (26%), and manufacturing (19%). This shows that although there are subsidiaries that perform higher value added activities, in keeping with SRS attributions, they account for just one third of the sample. In other words, a large number of subsidiaries of foreign companies in Brazil perform activities that are aligned mainly with Level 1 and Level 2 roles, as shown in Figure 1 at the start of the text. This being the case, uncovering the organizational factors that lead to the development of SRSs is of substantial interest when it comes to the evolution of the strategic importance of most of the foreign subsidiaries in Brazil.

We found that 66% of the subsidiaries say their organization is heavily geared towards entrepreneurial activities. Autonomy is also a strong feature of Brazilian subsidiaries, except when it comes to hiring senior executives (a decision made by a regional center) and to budget decisions (centralized at

headquarters). Despite this autonomy, 61% of the subsidiaries feel that communication with headquarters is frequent, which shows that more than half of them is strongly integrated with their headquarters and with other units.

There is a significant correlation ($p < 0.05$) between organizational competencies and value creation (R&D: $R^2 = 0.37$; production: $R^2 = 0.40$; sales: $R^2 = 0.38$; marketing: $R^2 = 0.36$; international management: $R^2 = 0.27$; interface management: $R^2 = 0.43$; innovation: $R^2 = 0.25$) and between organizational competencies and global competitiveness (R&D: $R^2 = 0.37$; production: $R^2 = 0.29$; sales: $R^2 = 0.36$; marketing: $R^2 = 0.32$; international management: $R^2 = 0.41$; interface management: $R^2 = 0.59$; innovation: $R^2 = 0.31$). However, it is important to highlight that among the organizational competencies, only interface management ($R^2 = 0.34$) has a significant correlation with recognition from headquarters ($p < 0.05$). This exclusive correlation of interface management with recognition from headquarters is a result that deserves a lot of attention, because one of the chief difficulties faced by studies about the strategic role of subsidiaries is the latter's capacity to get their competencies acknowledged and shared with the network. Studies such as those by Birkinshaw and Hood (1998) and by Birkinshaw, Hood and Jonsson (1998) have already drawn attention to this, albeit hypothetically, without empirically evidencing what competencies might be required for this, among other reasons because the object of such studies was much more associated with international responsibility than with value creation and with the subsidiary's recognition by its headquarters. This study, by treating the strategic relevance index as deriving not only from international responsibility but also from value creation and from the recognition of the subsidiary by its headquarters, conceptualizes and measures the importance of competencies in interface management, for those foreign subsidiaries that aim to acquire SRS status.

Only three variables related to entrepreneurial orientation significantly correlate with the dependent variables ($p < 0.05$). Senior management support for entrepreneurial activities is important for value creation ($R^2 = 0.25$), whereas senior management's experience with innovative activities helps the subsidiary to earn recognition from its headquarters ($R^2 = 0.26$). Furthermore, the incentive to undertake risks is correlated both with recognition from headquarters ($R^2 = 0.32$) and with global competitiveness ($R^2 = 0.27$). Certain correlations show what had been expected, such as a correlation between support for entrepreneurial activity and value creation, or the presence of experienced senior management and recognition from headquarters. However, one must question the following: how can one explain the incentive for assuming risks and its positive relation with global competitiveness and recognition? At first sight, the result seems contradictory. If one resorts to the rationale of the headquarters, according to which strategic relevance derives from a concession made by headquarters, the correlation would seem illogical, as it implies the possibility

of a subsidiary running random risks that might result in bets that are not strategically aligned with the headquarters' objectives and, possibly, to the detriment of value creation. On the other hand, if one embraces a more recent viewpoint, according to which the subsidiaries' strategic role derives not only from directives from their headquarters, but also from the strategic bets of the subsidiary itself, the fact that a foreign subsidiary runs risks as part of its activities becomes an essential factor when it comes to the headquarters acknowledging its subsidiary's strategic relevance.

The strategic relevance vectors correlate with the communication variables ($p < 0.01$). The working relation between the headquarters and the subsidiary is correlated with global competitiveness ($R^2 = 0.26$). This shows that as soon as a subsidiary acquires global competitiveness, its level of integration and consequently its exchange of information and recognition increase. It was also apparent that when the subsidiary manages to get the corporation to understand its competencies, its strategies become correlated with the creation of added value ($R^2 = 0.43$), global competitiveness ($R^2 = 0.37$), and recognition from headquarters ($R^2 = 0.41$).

Subsidiary autonomy appears not to be correlated with any of the dependent variables of strategic relevance. In other words, the exaggerated autonomy that is characterized by a lack of integration with headquarters does not, in principle, contribute to strategic relevance.

In sum, an analysis of the correlation matrix shows that organizational competencies and an entrepreneurial orientation are essential for value creation and global competitiveness. However, to become an SRS, a subsidiary needs to have its strategic importance acknowledged by the corporation and, to achieve this, it is indispensable to competently manage its interface with the headquarters, as well as to get its competencies to be understood by the latter.

5. RESULTS

In this section, we will present the multiple linear regression models (PESTANA and GAGEIRO, 2000) that enable one to test hypotheses H1, H2 and H3, the dependent variables being the vectors that form strategic relevance (contribution to value creation, global competitiveness and recognition).

Table 2 shows four groups of dependent or predictive variables: the three vectors of relevance plus the relevance index. For each group of dependent variables, six regression models were extracted. The first four models of each group correspond to a separate regression for each factor that explains strategic relevance, i.e., a dependent variable regression for each block of independent variables: a block of independent variables containing only the organizational competency variables (Competency); another containing only the autonomy variables (Autonomy); another containing only the communi-

cation variables (Communication); and another containing only the entrepreneurial orientation variables (Entrepreneurial Orientation).

These models allow one to verify the intrinsic importance of each variable forming the factors competency, autonomy, communication and entrepreneurial orientation. Finally, in each group there is a fifth model that shows the regression with all the variables in question (Relevance Factors) and another that uses only those independent variables that had some significance for the previous models (Limited Relevance Factors),

resulting in the central models of our analysis, with a greater explanatory power of the factors that form SRSs. This restriction of the variables allows one not only to increase the explanatory power of the variables, but also to avoid possible multicollinearity problems that might conceal the real explanatory power of a variable.

Concerning the contribution to the corporation's added value (total Rsq = 25.6%, p<0.05), the variables that seem to have the greatest influences are the subsidiary's competencies regarding the management of its interface with headquarters

Table 2
Regression Models

Variables	Predictors	R ²	p
Y = Contribution to Added Value			
Competencies	Y = 2.046 + 0.558 X interface	0.210	0.05
	Y = 1.615 + 0.42 X interface + 0.247 X R&D	0.252	0.10
Autonomy	Y = 5.345 - 0.367 X lack of autonomy to alter products	0.037	0.10
Communication	Y = 2.237 + 0.428 X competencies understood	0.120	0.05
Entrepreneurial Orientation	No model obtained		
Relevance	Y = 1.105 + 0.399 X interface + 0.351 X sales	0.241	0.05
Relevance - Restricted*	Y = 0.856 + 0.240 X interface + 0.310 X competencies understood + 0.253 X R&D	0.256	0.05
Y = Global Competitiveness			
Competencies	Y = 2.268 + 0.624 X interface	0.321	0.10
Autonomy	No model obtained		
Communication	Y = 4.117 + 0.228 X headquarters-subsidiaries working relationship	0.058	0.05
	Y = 3.376 + 0.174 X headquarters-subsidiaries relations + 0.189 X competencies understood	0.084	0.10
Entrepreneurial Orientation	Y = 3.670 + 0.267 X senior management support for entrepreneurship	0.045	0.05
Relevance	Y = 2.062 + 0.661 X interface	0.351	0.05
Relevance - Restricted*	Y = 2.166 + 0.627 X interface	0.273	0.05
	Y = 1.059 + 0.486 X interface + 0.195 X risk as a positive attribute + 0.181 X R&D	0.329	0.10
Y = Corporate Recognition			
Competencies	Y = 3.829 + 0.396 X interface	0.143	0.05
Autonomy	Y = 4.615 + 0.449 X lack of autonomy to approve budget	0.050	0.05
Communication	Y = 3.843 + 0.341 X competencies understood	0.104	0.05
Entrepreneurial Orientation	Y = 4.545 + 0.218 X risk as a positive attribute	0.052	0.05
Relevance	Y = 2.395 + 0.382 X interface + 0.571 X lack of autonomy to approve budget	0.192	0.05
Relevance - Restricted*	Y = 3.032 + 0.339 X competencies understood + 0.198 X risk as a positive attribute	0.193	0.05
Y = Strategic Relevance			
Competencies	Y = 2.715 + 0.526 X interface	0.302	0.05
Autonomy	No model obtained		
Communication	Y = 3.307 + 0.342 X competencies understood	0.138	0.05
Entrepreneurial Orientation	Y = 3.866 + 0.218 X senior management support for entrepreneurship	0.043	0.05
Relevance	Y = 2.792 + 0.511 X interface	0.284	0.05
	Y = 2.035 + 0.436 X interface + 0.222 X sales	0.316	0.10
Relevance - Restricted*	Y = 2.184 + 0.383 X interface + 0.233 X competencies understood	0.291	0.05
	Y = 1.798 + 0.303 X interface + 0.243 X competencies understood + 0.162 X R&D	0.321	0.10

* Only with variables that were included in the models above.

($Rsq = 16\%$) and R&D ($Rsq = 4\%$). Furthermore, being able to make the headquarters properly understand the subsidiary's competencies also appears to be an explanatory variable for value creation.

When it comes to the subsidiary's global competitiveness (total $Rsq = 32.9\%$, $p < 0.10$), the explanatory variables are the organizational competencies, both in regard to the management of the interface with headquarters ($Rsq = 27\%$) and R&D ($Rsq = 3\%$), in conjunction with the subsidiary's entrepreneurial orientation to undertake risks ($Rsq = 2.9\%$).

Concerning recognition by its headquarters (total $Rsq = 0.193$, $p < 0.05$), communication between the subsidiary and its headquarters is essential, as this enables the latter to understand the former's competencies ($Rsq = 14\%$), along with an entrepreneurial orientation to undertake risks ($Rsq = 5\%$).

Finally, regarding the variable strategic relevance (total $Rsq = 32\%$, $p < 0.10$), the variables that explain this relevance are the same as those found in connection with contribution to value creation, i.e., the subsidiary's competencies both for managing its interface with its headquarters ($Rsq = 24\%$) as well as R&D ($Rsq = 5\%$) and the power of communication, which enables the headquarters to properly understand the subsidiary's activities ($Rsq = 3\%$).

The result ensures empirical support for hypothesis H1, i.e., "Strategically Relevant Subsidiaries (SRSs) are associated with competent management of the subsidiary-headquarters interface". Competent management of the interface between headquarters and subsidiaries ensures the transfer and recognition of the value activities that are carried out in the foreign subsidiary. This competency, consequently, allows the subsidiary to obtain advantages in the internal competition for strategic roles within the corporation, relative to subsidiaries in other countries.

Another important competency for the establishment of an SRS is competency in R&D. Competencies in this field are valuable for value creation and for the subsidiary's global competitiveness. The importance of this organizational competency is not surprising, as several other studies have yielded the same result (BIRKINSHAW, 2001; GOMES, 2006). R&D organizational competency results in the creation and development of innovations, which can then be shared within the network, under the leadership and responsibility of the foreign subsidiary.

The results also provide empirical support for hypothesis H3, i.e., "Strategically Relevant Subsidiaries (SRSs) maintain strong relations with the corporate headquarters and with the multinational's other subsidiaries in terms of integration". Strategic alignment integration is essential for SRS status. First, because it allows subsidiaries to explore the multinational's internal opportunities (BIRKINSHAW, 1997), guaranteeing strategic alignment. Secondly, because integration works as a form of control, closely related with socialization, which ensures that headquarters feel more secure about subsidiaries'

strategic directions (NOHRIA and GHOSHAL, 1997). Finally, because constant communication flows and strategic alignment encourage knowledge exchange for the development of the competencies that are essential for the subsidiary's strategic relevance.

Concerning H2, the empirical results support the hypothesis that "Strategically Relevant Subsidiaries (SRSs) have a higher level of entrepreneurial orientation than the multinational's other subsidiaries", but the weight of this internal factor in determining SRS status is lower than that of interface management and subsidiary-headquarters integration competencies.

Although entrepreneurial orientation is not directly related with value creation, it appears to have some correlation with global competitiveness and recognition from headquarters, although with a lower weight. One explanation for the non-existence of an association between entrepreneurial orientation and value creation can be found in the research of HOLM and PERDERSEN (2000). When the subsidiary develops a global innovation and starts to create value for the corporation, the focus of its strategy becomes the transfer and sharing of the innovation across the corporate network, i.e., its focus centers on interface management and on integration. As its focus is on transferring its competency, the development of other innovations is relegated to a secondary position; therefore, entrepreneurial orientation, which previously was essential for starting up the innovation process, is now overshadowed by other activities that are more important at this point in time. This result can be verified in the greater explanatory power of the interface management competencies. However, entrepreneurial orientation is not abandoned, nor does it cease to be essential, because within an evolutionary process of subsidiaries (BIRKINSHAW and HOOD, 1998; BIRKINSHAW, 2001), permeated by internal competitive relations (BIRKINSHAW and LINGBLAD, 2005; REZENDE, 2006; REZENDE and VERSIANI, 2007), the subsidiary's global innovation, over time, loses its value if it is not updated or even recreated. For this process of recreation, updating and maintenance of global competitiveness and recognition from headquarters, it becomes necessary, once again, to have the support of an entrepreneurial orientation. Therefore, the secondary weight of entrepreneurial orientation can be explained by the variable nature of its importance, depending on the evolutionary stage of innovation in the foreign subsidiaries.

Thus, the empirical results support the three hypotheses that were raised. One can state that the strategic relevance of the subsidiaries of foreign multinationals in Brazil depends on the following, in order of importance, based on the regression tests that were carried out:

- interface management competencies;
- integration between the headquarters and its subsidiaries; and
- the subsidiaries' entrepreneurial orientation.

6. CONCLUSION

This section presents, first, the study's conclusion regarding the importance of the organizational factors for determining the strategic relevance of foreign subsidiaries in Brazil and the contributions to the area's academic literature. It then presents the study's contributions, analyzed from three different points of view: the first discusses the study's implications for the corporate management of multinationals; the second discusses the implications of the results for subsidiaries' strategic actions; and the third relates the effects of the subsidiaries' strategies on the dynamics of the domestic competitive context and their relation with the industrial policies of developing countries.

To this day, most multinationals have no transnational strategy (BARTLETT and GHOSHAL, 1992) and, therefore, do not see their subsidiaries as a source of competitive advantage (BIRKINSHAW, 2001), as an extension of the headquarters when it comes to value creation strategies (FROST, BIRKINSHAW and ENSIGN, 2002). However, those that do see their subsidiaries as centers of competitive advantage end up embracing a differentiated network structure (NOHRIA and GHOSHAL, 1997), in which the multinational's chief competitive advantage is its capacity to have dispersed but integrated resources, which lend the company the capacity to learn from its operations in different markets, through the strategic integration of its units.

For those subsidiaries that are part of a transnational corporate strategy directed by the headquarters, the article proposes, as a conclusion, that the internal organizational factors that lead a subsidiary to become an SRS are, in order of importance:

- the headquarters-subsidiary interface management competencies;
- the headquarters-subsidiaries integration; and
- an entrepreneurial orientation.

The development of an ongoing and stable relation between subsidiaries and their headquarters, by means of interface management and the capacity to transfer innovations from the subsidiaries to the headquarters, enables the corporation to take advantage of the knowledge that is spread throughout the network. Communication is the link that leads to the strategy of each foreign operation being in line with corporate strategy, whereas interface management implies a strong flow of explicit and tacit knowledge, ensuring that the combinative capacity of this knowledge is exploited for the creation of innovations that can be applied by the global corporate network.

In particular, the article shows that the main challenge for a foreign subsidiary in Brazil wishing to become an SRS lies in the development of competencies in interface management and in integration, in the sense of leading the corporation and its headquarters, in particular, to understand the subsidiary's

other organizational competencies — especially in R&D. This result is somewhat different from the studies conducted with foreign subsidiaries in developed countries and presented, in summary form, in table 1 (theoretical framework section above) where two main aspects are concerned. First, the chief competencies are not R&D and manufacturing (WHITE and POINTER, 1984; D'CRUZ, 1986; ROTH and MORRISON, 1992; BIRKINSHAW, HOOD and JONSSON, 1998; BIRKINSHAW and NOBEL, 1998) but the interface with headquarters, which, though discussed theoretically in the studies of Birkinshaw, Hood and Jonsson (1998), was not empirically tested, among other reasons because the authors only measured value creation and global competitiveness in their index, which lacks corporate recognition, as they themselves concluded. In turn, the metrics for the identification of SRSs used in our article, integrating the three factors, made it possible to diagnose the importance of the interface management competency.

To acquire SRS status, it is not enough to 'sell' the innovation to headquarters; it is essential to develop the competency for managing the interface with headquarters and with other subsidiaries, which is the competency responsible for innovation transfers. Furthermore, interface management allows one both to explore the corporation's internal opportunities and to take advantage of other corporate innovations that can enhance the management of the subsidiary.

This finding draws one's attention to another point on which the results in Brazil differ from those abroad when it comes to constituting SRSs. Integration of the subsidiary with the other units in the network is essential. This means that the autonomy that subsidiaries' managers desire, as if it were the means to greater responsibility and freedom, rather than furthering strategic relevance, can actually have a negative effect, in that it may indicate a lack of integration with headquarters that is detrimental to SRS status.

This implies that for foreign subsidiaries in Brazil, the chief challenge is not decision-making autonomy, but persuading headquarters about the value of its innovations. This is no mean task. The managers in such subsidiaries must keep in mind that besides competition from the market (external), there is another form of competition in a multinational: the internal competition among subsidiaries, determined by the complexity of the relations of the differentiated network structure (NOHRIA and GHOSHAL, 1997), as was stressed in the studies of Birkinshaw and Lingblad (2005), Rezende (2006), and Rezende and Versiani (2007). Integration with the other network units is the only way to participate on an equal footing with them. Excessive autonomy can lead to a lack of strategic alignment, which stands in the way of the foreign subsidiary playing an integrated role (JARILLO and MARTINEZ, 1990; ROTH and MORRISON, 1992).

Lastly, the results obtained contribute to the development of knowledge in the area of international management and strat-

egy, specifically in regard to the organizational factors that determine the role of multinationals' subsidiaries in large developing countries such as Brazil, and to an understanding of the quality of direct foreign investment in Brazil. Future stud-

ies might explore these internal factors in conjunction with external factors, or even seek other internal factors capable of helping foreign subsidiaries in Brazil to develop strategic relevance. ◆

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ABSTRACT

The strategic relevance of the Brazilian subsidiaries of multinationals corporations

This article identifies organizational factors that influence the formation of strategically relevant subsidiaries. Strategic relevance is the expression used to describe the unique strategic importance of certain subsidiaries in relation to others, as a means of ensuring global competitive advantage. The organizational factors that theoretically influence strategic relevance are the organizational competencies of the subsidiary, its entrepreneurial orientation, the autonomy of the subsidiaries, and the integration of headquarters and subsidiaries. An exploratory study was conducted with a sample of 118 of the 1,000 largest subsidiaries of foreign corporations in Brazil. The main results show that the strategic relevance of foreign subsidiaries in Brazil depends particularly on subsidiaries' competencies in their interface with headquarters; on the communication between the subsidiaries and headquarters in terms of how well the subsidiaries' competencies are understood by the headquarters; and on the entrepreneurial orientation that headquarters allows their subsidiaries.

Keywords: subsidiaries' roles, multinationals corporations, emerging markets, foreign subsidiaries, strategic relevance.

RESUMEN

Importancia estratégica de filiales brasileñas de las empresas multinacionales

El objetivo en este artículo es identificar los factores de organización que influyen en la formación de filiales con mayor importancia estratégica. Importancia estratégica es la terminología utilizada para referirse a la relevancia estratégica diferenciada que tienen algunas filiales con respecto a las demás, como una forma de garantizar la ventaja competitiva global. Los factores de organización que teóricamente influyen en la importancia estratégica son las competencias organizacionales de la filial, la orientación empresarial, la autonomía de las filiales y la integración entre sede y filiales. Se realizó un estudio exploratorio con una muestra de 118 de las mil mayores filiales de empresas extranjeras en Brasil. Los principales resultados muestran que la importancia estratégica de las filiales extranjeras en Brasil depende, especialmente, de las competencias de dichas filiales en cuanto a su integración con la sede; de la comunicación entre filiales y sede, en lo que concierne al adecuado nivel de comprensión de las competencias de las filiales por parte de la sede; y de la orientación ofrecida por la sede a las filiales en las actividades empresariales.

Palabras clave: papel de las filiales, empresas multinacionales, mercados emergentes, filiales en el extranjero, importancia estratégica.