EFFECTS OF PRIVATIZATION IN POSITIONING STRATEGIES OF TELECOM COMPANIES: A CARRIER'S PERSPECTIVE

Alexandre Caramelo Pinto, alecaramelo@uol.com.br
Universidade de São Paulo – USP, Fundação Vanzolini
Av. Prof. Almeida Prado, 531 - Cid. Universitária - 05508-900 – Brazil

Walter Bataglia, walterb@mackenzie.com.br
Universidade Presbiteriana Mackenzie, FCECA
Avenida Mackenzie, 905 – Tamboré – Barueri – 06460-130 - Brazil

Abstract

The Brazilian telecommunications market has been the intent of several structural and competitive changes related to factors such as globalization and increased investments, essentially, due to the privatization of Sistema Telebrás which occurred in 1998. New guidelines followed by a reorientation of the sector were first motivated in 1995 when Brazilian government was headed by president Cardoso at his first mandate.

The purpose of this work is identifying main changes as far as the positioning strategies are concerned by network operators after the privatization and also the influence of technological convergence in this context. The theoretical framework draws on concepts from former studies concerning the conception of strategies in globalized markets and particularly, in Brazilian post-privatized market.

Based on data from a field research carried out in the Brazilian telecommunications industry and on secondary data about the sector evolution, a comprehensive picture of the modifications in the competitive structure of the network-operator segment since the beginning of the privatization process is built. The methodology used was the multiple-case study. Five Brazilian network operators were analyzed.

As a result of this study, an analysis of the competitive forces before and after the privatization is presented. The analysis was based on Michael Porter's model as well as interviews with five executives regarding their sense of to what direction positioning strategy has moved after the privatization event. All interviewed executives were chosen based on their expertise in telecommunications arena and their involvement with the elaboration of strategies at the business level in their companies.

Keywords: Telecommunication Brazilian market, competitive structure, positioning strategies, privatization, competitiveness, telecommunications.

Introduction

Before privatization, all Brazilian telecommunication services were under the responsibility of the government, which managed the technological system from its companies and its research institutes, conglomerated into Sistema Telebrás. As regular public services, all of them were evaluated from the social indicators perspective. Since its privatization, in July of 1998, the sector had its structure significantly altered. The profile of the organizational environment became characterized by a new technological regime (Fransman, 2002), dictated by the redefinition of the role and relationships of the component agents of the technological system, consolidation of real competition in a situation of low entrance barriers, government regulation with the intent of improving service quality, and internationalization of the sector. Brazilian privatization took place under a neoliberal approach and with financial focus (Ripper, 2003).

> Government left corporate governance, and the largest domestic telecommunication companies became essentially of european and north american control. Distinctly of what had happened in the most-developed countries[1], Brazilian privatization process, like in other South American countries, allowed the acquisition of government controlled companies and concessions without restrictions regarding foreign capital participation. (Fleury at. al., 2004).

One of the most relevant consequences of this model was the sector internationalization. Carriers, which initially were domestic companies, have become basically transnational companies. On the other hand, within the efforts for maintenance of competitiveness, carriers sought to develop new solutions based on the technological convergence concept. The voice and data integration, far beyond its savings, can lead to the consolidation of diverse telecom infrastructures into only one, with comprehensive gains of scale and scope.

These potential benefits have attracted attention of carriers that started to consider convergence and, consequently, convergent networks as a new business opportunity quite attractive from the economical perspective (BNDES, 2000). Notwithstanding, technological convergence led to the establishment of new entrants.

> Technological convergence created a scenario that propitiated computing, information and entertainment industries could also act at the telecommunication sector. (Fleury & Fleury, 2003).

Obviously, this new environmental configuration establishes competition logics plenty different from the ones legitimated for the period before the privatization. The main question pursued by this study aimed to collaborate for deepening knowledge about changes at the sectorial structure and competition logic of the network-operator segment. The main question of this research is: *What is the impact of privatization concerning positioning strategies of Brazilian carriers?*

1. Design of Study

This research has chosen multiple-case study (Yin, 1994) as its research method. Main reasons for this election were: absence of control of the events subjected to study, contemporaneity of the object of study, and impossibility of its separation of the context. The focus of the study is centered in comprehending the sectorial structure of the Brazilian network-operator segment in the period post privatization. The first stage of the study looked for bibliographic material pertinent to the theme.

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[1] Foreign capital participation has been limited to 20% in USA and France, 25% in Japan and Spain, and to 49% in Mexico, Korea and Canada (Augusto, 2000).

The second stage, fieldwork, consisted of a research with five different Brazilian network operators. Five executives were interviewed: one in every organization, all involved in the strategic process. Their selection included the requirement of their involvement at the strategy process at the business level for at least 10 years, period comprised by the focus of this study.

In depth interviews were conducted with the executives utilizing a semi-structured questionnaire elaborated for identifying the profile of the sectorial structure before and after the privatization. The conceptualization of the sectorial structure utilized the competitive-forces model proposed by Porter (1986, 1990). Five forces were analyzed as follows: bargaining power of suppliers, bargaining power of buyers, entry of competitors, rivalry among existing players within the sector, and threat of substitutes. The operationalization of these variables was obtained with the indicators proposed by Hax and Majluf (1994). All indicators were measured with a five-point Likert scale (Likert, 1932; Lang, 1979; Simpson, 1994). Executives were requested to attribute values to all indicators, justifying their choices.

The questionnaires were sent to executives previously to the interviews, via e-mail, with the intent of sensitizing them for the relevancy of the theme and general proposals of the study. The telecommunication industry has been placed in two distinct moments: pre and post privatization, with the objective of identifying the effect of privatization for each one of the proposed indicators, establishing this way a scenery of the most affected competitive forces.

The Likert scale utilized for evaluating indicators of competitive forces has been constructed with a balanced set of items, containing in average an equal number of favorable and unfavorable items with the objective of reducing and if possible eliminating chances of biases associated with items following the same trend (Moreira, 2001). All measurements were made to evaluate the attitude of the executives in regards to the proposed aspects, considering the numeric punctuation on every scale item. As we have dealt with a restrict number of individuals in relation to the universe of the executives involved with carriers strategies, the non-parametric tests might become idiosyncratic (Siegel, 1975). It was chosen to analyze the data applying content analysis, more specifically, thematic analysis (Bardin, 1977).

2. Scenery of competitive forces affected by privatization

In table 1, it is possible to observe, for each one of the five competitive forces researched, the variations audited for the periods pre and post privatization, considering the five-point Likert scale proposed to the executives.

Table 1 – Variation of competitive forces related to privatization

	Before Privatization		After Privatization		Variation (%)
	Average	Standard Deviation	Average	Standard Deviation	Before/After
Bargaining power of suppliers	2,240	0,261	3,920	0,540	75,00%
Bargaining power of buyers	2,150	0,790	3,400	1,058	58,14%
Entry of competitors	2,275	0,861	4,125	0,465	81,32%
Rivalry	1,800	0,245	4,200	0,632	133,33%
Threat of substitutes	1,933	0,808	3,667	0,808	89,66%

Considering values obtained from previous table, it is possible to note that the perception of the executives indicates that privatization influenced all dimensions of the sectorial structure. Noticeably such effect is better observed by the enlargement of Rivalry (133,33%), increment of availability of substitutes (89,66%), and raised entry of new competitors (81,32%).

In order to better visualize the data, they are presented graphically on figure 1. For a better visualization, the scale was changed to: -2, -1, 0, 1 and 2, and a multiplicative factor (k=1,4) was applied. It contemplates the perception of the executives with regards to two key moments for the study: before and after the privatization.

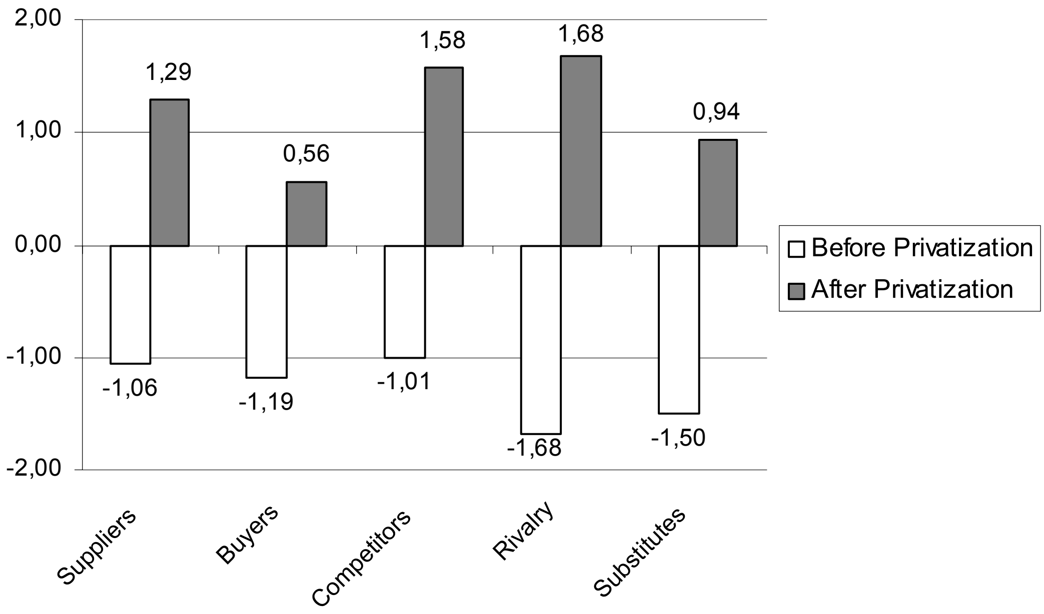

Figure 1 - Effects of privatization in positioning

In the following sections the qualitative data collected during the interviews is presented, depicting variations indicated by the executives about the sector's structure.

2.1 Bargaining power of suppliers

Table 2 – Variation of competitive force Bargaining power of suppliers

	Before Privatization		After Privatization		Variation
	Average	Standard Deviation	Average	Standard Deviation	Before/After
Bargaining power of suppliers	-1,06	0,261	1,29	0,540	75,00%

The variation of the force "bargaining power of suppliers" appears linked to the executive's perception concerning the disarticulation between the industry and the domestic suppliers of equipment and components. With the privatization of Sistema Telebrás and the alteration of public and private investment goals, the number of suppliers had a significant raise and companies with in-country manufacture had its investments intensified. However, network operators revised their supply strategy in order to take advantage of their global sourcing contracts with specialized third-party manufacturers (Sturgeon, 1997).

This perception is coincident with the one indicated at Gazeta Mercantil (2001) and with Carvalho (2002) indicates that carriers have demonstrated a huge resistance concerning any mechanism that could eventually interfere with their global procurement contracts for equipment and services. This situation has also been pointed by Fleury *et al*. (2004): “the most routine manufacturing activities and post-sales services are now carried on by global companies recently created such as Celestica, Solectron and others”.

2.2 Bargaining power of buyers

Table 3 – Variation of competitive force Bargaining power of buyers

	Before Privatization		After Privatization		Variation
	Average	Standard Deviation	Average	Standard Deviation	Before/After
Bargaining power of buyers	-1,19	0,790	0,56	1,058	58,14%

The interviewed executives have indicated that carriers tend to segment their customers in three basic markets: basic voice transmission; voice transmission with complementary services, like voice mail and low volume data transmission such as WAP and SMS - Short Message Service; and corporate market, which involves transmission of high volume of voice and data. Similar results were also noticed by Fleury & Fleury (2003). While corporate segment has demonstrated a tendency of improving its participation at carrier’s revenue, basic voice transmission services had declined its overall performance as a result of local and long distance competition.

The cost strategy (Porter, 1986) is utilized by carriers for the basic voice transmission market, aiming scale benefits. For this particular segment it is possible to be noticed the carrier’s concern about retaining network utilization, by reducing churn rate. For the complementary voice services market, carrier’s strategy is launching new services to improve network utilization by getting fidelity from customers. Identifying the customer profile properly becomes a crucial point for this market.

At the corporate market, positioning involves differentiation (Porter, 1986) by developing customized solutions for customer needs. Many companies contracted carriers and service providers to manage and operate their private networks (outsourcing). This new strategic movement brought good results for carrier’s revenues. According to Soares (2003) this new concept allowed investment of hundreds of million dollars within telecom infrastructure, via contracts closed between carriers, banks, air companies, car manufacturers and credit card operators. It is interesting to notice that

> There is a pronounced dispute among telecommunications companies, carriers and specialized equipment suppliers to become suppliers for large corporate projects. (Fleury & Fleury, 2003).

2.3 Entry of competitors

Table 4 – Variation of competitive force Entry of competitors

	Before Privatization		After Privatization		Variation
	Average	Standard Deviation	Average	Standard Deviation	Before/After
Entry of competitors	-1,01	0,861	1,58	0,465	81,32%

For the interviewed executives, the regulatory aspect is reasonably relevant concerning the entry of new competitors. The Sistema Telebrás has been divided into twelve incumbents: three of them controlling regional fixed telephony companies; one that controls Embratel, a long distance carrier of Sistema Telebrás; and eight controlling regional cellular companies.

> The three incumbents for fixed telephony have been structured as follows: a) North and East: private Brazilian entities; b) Centre and South: private Brazilian entities, pension funds, and Telecom Italia; c) São Paulo state: Telefônica from Spain, Bilbao Vizcaia Bank and Iberdrola. Embratel, carrier of Telebrás had its controlling interest handed to MCI–USA. Mirror companies have also entered this scenario to stimulate competition. Mirror company is the term used when referring to companies that have received authorization to exploit regional fixed telephony, competing with carriers originated from the privatization of Sistema Telebrás. So that, for mobile telephony, main participants were chosen by bidding process: Telecom from Portugal, Telefonica from Spain, Italia Telecom, TIW (Canada), BID (Splice-EUA), Telia (Sweden), Brazilian BCP and Algar. In other words, all companies that assumed network operation were european carriers recently privatized or new entrants (such as MCI from USA). (Fleury & Fleury, 2003).

Since 1998's auction, the number of operating licenses has not changed. It was foreseen only the competition between incumbents and mirror companies. So, the competition in the sector was based upon two main factors. By one side, bidders that participated in 1998's auction had diverse advantages since they had an operating network, consistent cash flow and large scale gains. Otherwise, mirror companies had the possibility of acting in regions potentially more profitable, being able to utilize state-of-the-art technology when local loop were entirely provided by their own resources. Nevertheless, the sector regulation allowed that new licenses were assigned to companies that would provide specialized services for to the corporate market, that is,

> Service destined to provide telecommunication between distributed locations in order to establish distinct telecommunication networks, serving exclusively corporate market with specific activity. (ANATEL, 2002, p. 105).

As a result, diverse consortiums, formed by pension funds, banks and private institutions, established metropolitan networks, based in fiber optic rings and digital radio. This led to a steady rise of the competition in the sector, giving access to the corporate market for carriers without the possession of the last mile. Regional backbones in cities like Rio de Janeiro, São Paulo, Curitiba and Belo Horizonte contributed to accentuate the perception of the executives about the influence of new entrants in the telecom sector.

2.4 Rivalry

Table 5 – Variation of competitive force Rivalry

	Before Privatization		After Privatization		Variation
	Average	Standard Deviation	Average	Standard Deviation	Before/After
Rivalry	-1,68	0,245	1,68	0,632	133,33%

According to the perception of interviewed executives, rivalry within the telecom sector was reasonably raised due to the growth of the number of competitors after the privatization. Beyond that, in July of 2002, carriers with regional operating licenses obtained permission to operate in other regions of the country since the majority of them had reached the rigorous goals imposed by the regulation agency, Anatel. Since its privatization, the sector has witnessed a vigorous price battle in the segment of long distance calls.

At the corporate segment, there are lots of options for telecommunication service providers that, in order to obtain fidelity of theirs customers, offers benefits such as attractive packages (discounts, tariffs reduction, and others) and cumulative advantage plans from the utilization rate. According to Gazeta Mercantil (2001) carriers planned to invest in 2000 near 10 to 15% of their revenue to attend expectations of corporate segment. This is a possible explanation hypothesis for the current indebtedness level of the companies in this segment.

Another factor that will probably accentuate competition within the sector is unbundling, or the obligation of the carriers with the possession of the last mile to disaggregate their networks for the access of their competitors to the “last mile”. Independent of technical and commercial discussions, unbundling is formalized by articles 146 of the Telecommunication Law (Lei Geral de Telecomunicações), which makes it mandatory, and article 73, which characterizes the network elements to be disaggregated.

The interconnection obligations, imposed by the concession contracts, embody rules for negotiation of agreements among market agents, aiming to repress practices like: tariff subsidies, which would permit artificially reduced tariffs; omission of technical information; and abusive exigencies. The network operator that cedes its network for a third-party company must be compensated accordingly. The key point is putting a price on this relationship since that it must be observed criteria like: not stimulating bad application of capital, shunning the duplication of networks; and promoting retail price practices supported by economic supplying costs, stimulating investments in infrastructure.

2.5 Threat of Substitutes

Table 6 – Variation of competitive force Threat of substitutes

	Before Privatization		After Privatization		Variation
	Average	Standard Deviation	Average	Average Deviation	Before/After
Threat of Substitutes	-1,50	0,808	0,94	0,808	89,66%

For the interviewed executives, the substitute products (PORTER, 1986) in the sector are usually based on either innovative technologies or services with high aggregated value. Technologies as VoIP - Voice over Internet protocol, MPLS - Multiprotocol Label Switching, and ISDN – Integrated Services Digital Network (technology still in maturation on the brazilian market), were mentioned, among others.

The executives consider the technological convergence a factor that can affect drastically the competition in the sector due to its potential for enabling the emergence of multi-service platforms and the integration of the networks. In the case of VoIP, the main idea is enabling the Internet fixed cost system for regular phone calls. The use of the Internet infrastructure can drive down drastically the cost of long-distance calls, restraining the profit and the prices practiced by Operators.

In the corporate segment, many companies already employ this technology in their intranets, but without connection to Internet. One possibility would be the emergence of the IP telephony by the interconnection of the private IP networks to carrier's network. Noticeably, carriers might face a variety of problems to keep up with their revenues in case that technological convergence gets intensified. However, actual characteristics of Internet, like packet delays, the absence of standardization, and its guideless growth, act as restraining factors for VoIP.

It is important to mention that, in the perception of the interviewed executives, the technological regime (Fransman, 2002) of the sector suffered a huge impact with privatization. After privatization, the Brazilian subsidiaries of the specialized equipment suppliers discontinued the development of new products in Brazil and transferred it to their headquarters. Besides, the agent of technological innovation changed from the technological branch of Sistema Telebrás, CPqD – Center for Research and Development, to international standardization institutions and to the domestic regulation agency, Anatel.

3. Final Considerations

This study found out a significant change in the sectorial structure of the segment of network operation of the Brazilian Telecom Sector after the privatization. This led the carriers to redesign their strategic positioning (Mintzberg, 2001; Porter, 1986). It is important to observe that whether the focus of this study were centered at any other component of the supply chain, the results obtained would probably be distinct once the position within the chain leads to different characteristics of the organizational profile (Galbraith, 1983; Fleury & Fleury, 2002).

It is still important to distinguish the limitation of the results due to the limited number of carriers studied. The results must be considered as tentative hypothesis to be certified in future researches (Yin, 1994).

In the course of this study it was possible to observe that privatization acted as a catalyst for the accentuation of the competition and for the entry of new competitors considering the network-operators segment. Equally perceptible is the client segmentation by carriers in three distinct markets: basic voice transmission; voice transmission with complementary services; and corporate market including voice and high volume of data traffic. For the first segment, there is clearly defined a cost strategy whereas in others differentiation. Apparently there is a deeper interest in conquering corporate market, offering either fixed or mobile services. Predominant strategy for this segment seems to be customization and personalized attendance.

The worry with the retention of yet-conquered customers also reveals that the carriers, aware of the new market situation, have been more involved with the reduction of churn rates. It was also possible to identify that the carriers face the convergent technologies, such as MPLS, and its utilization within a framework of retaining customers, via the offering of a wide spectrum of aggregated services. However, as technological convergence becomes mature it is probable that its effect for the positioning and business grows, with potential to change the sectorial structure itself. Naturally, whatever the technology is, its development will depend on the availability of resources for investment, which in the present moment has been restricted due to the global economy situation.

The linkage between carriers and theirs suppliers figures as an important element for the positioning strategy in the period post privatization as evidenced by this research results. Carriers revised their supply strategy in order to take advantage of their global sourcing contracts with specialized third-party manufacturers, leading to a situation in which the manufacturing and post-sales activities are done by global companies.

It was possible to sense the growing importance of the international standardization entities on the technological regime. This was caused by the disarticulation of Sistema Telebrás and the transference of new-product development from Brazilian subsidiaries to their headquarters.

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