

Change of Ownership and Financialization of the Agents: Analysis of the Curriculum of the Professionals in the Leadership Position in the Electricity Sector in Brazil

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Abstract

The aim of this study is to approach the professional trajectory of Brazilians who occupied high positions in large companies. After the process of mergers and acquisitions, and privatization of companies, in the 90s in Brazil, we look for identify how, due to the new financial logic, elite professionals had to seek ways to reconstruct and rebuild their careers according to the new financial logic at the moment. The case of the Brazilian company, Eletropaulo, which went through restructuration, exemplifies this scenario, as it was a stateowned enterprise before and now privatized company.

Index terms— financialization; professional trajectory; quantitative analysis; culture; privatization

Abstract-The aim of this study is to approach the professional trajectory of Brazilians who occupied high positions in large companies. After the process of mergers and acquisitions, and privatization of companies, in the 90s in Brazil, we look for identify how, due to the new financial logic, elite professionals had to seek ways to reconstruct and rebuild their careers according to the new financial logic at the moment. The case of the Brazilian company, Eletropaulo, which went through restructuration, exemplifies this scenario, as it was a stateowned enterprise before and now privatized company. The central importance of studying the Brazilian electricity sector is that this sector has been subject to the most radical changes in financialization since 1990. In fact, these transformations are unprecedented in any other economy. This unique experience has led a number of other countries to examine the Brazilian model, sometimes in order to criticize it, but in other cases to emulate and develop it further. However, no study about the built of careers elite in this Brazilians context has so far been made. A quantitative research approach is employed in this study, which is also supported with descriptions. Information about curriculums of the leaders was taken from the company website and also from a commission in Brazil that regulates public companies. To analyse the data, we separated the curriculum by formation, schools and career building and then we looked for the frequency and accumulated frequency separated by variables of officers and directors in periods before and after the privatization. Through the analysis of the curriculum of the leaders of the company from its emergence as a state company in 1979 until the year 2012 we have found that the engineering profession has been highlighted. And, in the period after the privatization of the company a great internationalization occurred, the boarders and directors start to have their undergraduate and graduate studies abroad.

Regarding the work of professional agents, it was verified that the boarders began working in finance areas after the privatization period, and before they occupied other positions, such as unions, universities and other companies. Also after the privatization process there was an emphasis in formation of economics courses. Economics occupy a central position in the implementation of economic policies in the country, but the late crystallization of economics courses in Brazil, and the beginning of the occupation only from 1950, it may have been one of the reasons why engineering (this profession in Brazil dates back to the imperial era) was the first profession to consolidate, form and frame the first professional of Brazilian's elite. The company Eletropaulo has substantial number of

1 Introduction

In Brazil, since the 90s, there was a movement of transition of professional careers, which occurred soon after the restructuring of companies in merger and acquisition movements in a scenario of financialization of the economy, and also the emergence of institutional investors (funds pension, insurance companies, etc.). (Zilbovicius, 1999).

Moreover, the 90s was marked by the privatization of Brazilian state-owned companies. This is the case of AES Eletropaulo, before state company, began to be privatized and incorporating, since the beginning, the restructuring from financialization model. Changes that will impact in the body of executives, composed in large part by engineers-managers. Therefore, through the case study in this company, we present a discussion that contributes for the studies about the professional trajectory of the staffs that hold positions of leaders in large Brazilian companies, also emphasizing their role as elite leader.

The study mainly consisted in the analysis of the curriculum of the professionals in the leadership position in Eletropaulo, since its establishment as a state-owned in 1979 until the year 2012. Being that, throughout this period, even undergoing restructuration that significantly changes the hierarchy configuration of companies, the situation as an engineer has been an occupation prominent in the frames of the direction of the company in these different periods. This way, considering this scenario of changes, this analysis attempts to explain why the engineers in Eletropaulo continue on the board, even after privatization and financialization of the company.

Considering that such a process start to impose a new logic, the financialization logic, in which investors begin to interact directly in the conduction of the company business, seeking for a performance with higher liquidity of the company in relation to the value of its shares, in order to obtain the maximum profit in the short term. Therefore, the Corporate Governance emerges as an innovative way of shareholders and directors to control the company, in opposition to the mode of bureaucratic organization, the Corporate Governance makes the transparency be the tonic of the control.

Thus the professional leaders, in this case, mostly engineers, are now seeking strategies and tools of guidance to rebuild their careers and meet these new dynamic in the companies. Therefore, we also observed the search for training courses focused on the business and finance area on the part of these leaders, gaining emphasis on the issue of internationalization, with a realization of postgraduate courses abroad.

However, not all of them follow these changes, keeping in more traditional roles. Another aspect that proved to be relevant in this analysis is the process of constitution of the engineering profession in Brazil, so we discuss some other historical aspects of these professional performances.

Being that their performance in the business and finance areas, just highlighting the status that this profession acquired in Brazilian organizations, because although we have today in the country, the consolidation of an area, the economic, which would be the most appropriate in terms of training to deal with such activities, the engineers do not have lose space.

Such permanence of the engineers was observed in the case of Eletropaulo. Through a quantitative research and analysis of all the leaders of the company, we found that among its boarders and directors there are a significant number of engineers. Thus revealing that, there is a preference for hiring engineers, and it has been maintained, even after the consolidation of economics courses in Brazil and the presentation of professionals in this area.

Thus, the study approaches aspects, about the career of engineer's professionals and their re-conversion, taking as a case study, the company Eletropaulo. The engineer as a social agent, his performance as a manager-engineer, the issue of leadership and the new financial elite. The transformation of the productive movements and the financial movements. The configuration of the game between managers, engineers (stakeholders) and investors (shareholders). The displacement of power structures established.

The Corporate Governance as an alternative to bureaucratic organization: the rise of a new business model and a new model of the world. Aspects of the labour market for the engineering professional in Brazil, the education of officers and directors, the tendency towards internationalization of education in the area of business and finance as a way of maintaining their career and professional status.

II.

3 Proposition

The proposition of this study is the restructuration of the company in all levels. After the change of ownership, the company need to answer the new proprietors. And to do so, we observe your entire reorganization. When the company was state-owned, the goal was provide high quality energy to their consumers, and while public company, it would be responding to the shareholder value.

In Figure 1, the pyramidal figure shows in the first period, 1 -owner of the company (in this case, state-owned company), 2-managers (administrators), 3-workers. Secondly, after the restructuring of the company, we get our figuration in the format of a hierarchical pyramid in the following way: 1 -shareholders; 2-managers, directors, boarders and consultants, 3-workers and outsourced workers. 12 (F) III.

4 Objective

The aim of this study is approach the professional trajectory of Brazilians who occupied high positions in large companies. After the process of mergers, acquisitions and privatization of companies, in the 90s in Brazil, we look for identify how, due to the new financial logic, elite professionals had to seek ways to reconstruct and rebuild their careers according to the new financial logic at the moment.

IV.

5 Methodology

The development of this work occurs in a Brazilian enterprise that went through a financialization process: AES Eletropaulo, an electricity company from São Paulo, Brazil.

We observe the differences between the Boards and Directors of this company before and after privatization, which occurred in 1998. Information about curriculum of the leaders of the year 2012, were taken from the company website. And the years between 1998 and 2008, documents were found in the Securities Commission (CVM), which is the commission that regulates public companies in Brazil.

The methodology used for this study is the quantitative analysis and after descriptions. As a form of analysing the data, we separated the curriculum by formation, schools and career building, and they were tabulated. Finally we analysed the frequency and accumulated frequency separated by variables.

V.

6 Literature Review

This movement of careers transition occurred in Brazil after restructuration of the firms in merger and acquisition movements, and also after the emergence of the institutional investors (pension funds, insurance companies, etc.), starting from 90s. (Zilbovicius, 1999; Chandler, 1984).

In this brief literature review we will be developing the theory of the so called managersengineers, who are currently leaders of the financial elite. With the fall of Fordism the Engineer professionals had to adapt and acquire different qualities as manager. We end the literature review with some survey data based on CONFEA -CREA (Federal Council Engineering and Agronomy -Regional Council Engineering and Agronomy), with a picture of where the Engineers are working, if they are working as Engineers, or in other areas. a) ??ES Eletropaulo This first section we talk about the model of the company before the privatization, the second part is about the restructuration that went through this company and the predominance of the financial logic; the third and the fourth section we describe how the managerial and shareholder revolution occurred in AES Eletropaulo.

i. Company Eletropaulo model before the period of privatization In the mid-year "1979, the federal government passed the company Brascan the controlling interest then Light -Electricity Services SA. In 1981, the company command passed to the state government of São Paulo (...). Electricity de São Paulo SA "(AES ELETROPAULO, 2011) and from the mid-90s begins its privatization process.

The process of privatization of state enterprises in the electricity sector came under discussion in 1995, with the beginning of the first term ??1995) ??1996) ??1997) ??1998) of the presidential administration of Fernando Henrique Cardoso, and the beginning of the Mario Covas government in the state of São Paulo (BOA NOVA, 2002). The privatization program of the federal government that started in the 90s, led to the need for a rearrangement of the organizational body of state enterprises. In general, the relationship between managers and owners would take a new form, as well as the hierarchical chain inside these companies also would suffer profound changes, primarily through corporate governance and after the career's built of its leaders, varying in accordance with the logic of the moment, in this case a company financialized.

7 ii. Company Eletropaulo model after the period of privatization and the predominance of financial logic

The process of financialization is affirmed by the structure of the parent company, which in addition to AES Eletropaulo, holds interests in other companies, proving the financial logic (AES ELETROPAULO, 2011).

Through the form of corporate governance adopted in the post-privatization period, there was a restructuration at all levels of the company: shareholders, directors and employees of AES Eletropaulo were all affected by this new form of management and work organization. Shareholders are directed to a company more committed to financial logic; executive compensation depends on the performance of the firm, and motivation of employees is based on the company's profit sharing and bonuses, affecting this way, the culture of the entire organization.

iii

8 . Managerial Revolution in AES Eletropaulo

Regarding climate change after privatization of Eletropaulo, an issue that deserves attention is the remuneration of the executives (managers) of the company, not by the amount of money involved, but by how this remuneration is structured and paid.

According to Dona done (2002), many studies on corporate governance suggests that there is a business environment that is called the Principal-Agent Problem, that is, modern corporations are not addressed by the

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shareholders (principal), but by managers (agents), effect caused by financialization. These two groups have conflicting interests: shareholders want to maximize your returns over the long term, because they are owners of the company, on the other hand, managers want to maximize your income in the short term, so they can get bonds and other forms of remuneration.

9 iv. Shareholder Revolution in AES Eletropaulo

Regarding the relationship between the adoption of differentiated levels of corporate governance and the impact on the market value of their shares, we observe that the pressure of the new owners has consequences in organizational design and composition of the power in the company, then there is a pressure for a search of maximizing the value of the company. (FLIGSTEIN, 1990; ??ONADONE, 2002).

The salary and benefits of the current executives and the difference in their remuneration and the difficulty of aligning these with the interests of the board is presented as a battlefield of economic interests. Then there is the destruction of social capital, changing the organization environment. The company's relationship with its stakeholders enter in a new logic now, enter in a profitable market with high potential, purchasing a company of financial capital, having no commitment to it, only in income and profitability, besides being easy the entrance by stocks.

According to Bourdieu (1990), a company as a field, its direction depends on the political fight of the agents, who try to identify their specific interests with the interests of the company, whose power is measured in the ability to identify the company's interests with their own interests in the company.

10 b) Engineer career in Brazil

Due to the new financial logic and the interaction and consolidation of investors on the business environment, the engineers needed to leave away some mechanisms and directions to rebuilt their professional careers. The case of the fall of managers of large conglomerates (Wall Street and others) is one of the examples that show how these professionals have their career redirected due to the inclusion of other agents of financial capitalism on the business game, namely the large institutional investors.

By the 1980s, with the advent of the Fordism crisis and post-Fordism, the process of flexibility labourin production systems, changes also in professional qualifications in general, and also consequently in the profession of engineer. The manufacturing engineer is no longer just an engineer but a manager-engineer, in other words a person responsible for the management and control of operations.

i. The social agent in question: The "managerengineer", the leader and the new financial elite Meanwhile companies rely on the net increase in shares and the key is the maximum return in the short term. According to Grun (1999) in the language of the market we would be facing a revolution of shareholders. Many authors like Zilbovicius (1999) point out that along with the previously mentioned processes most of the mass of workers is excluded from the battle, because the focus is not productivity and quality anymore. Now, the logic of the industry is focused on maximizing profits.

With cuts of functions and the process of outsourcing a large contingent of managers (possibly engineers) is moved from their old jobs. Therefore, they seek to convert some strategies to be re-allocated in the labour market. (CHANDLER, 1984) That is because of this process, we can see strong organizational changes in career paths, and professional insertion linked to the context of business, as is the case of "managersengineers."

ii.

11 Bureaucracy versus corporate governance: The Fall of a model of the world and the rise of a new world model

The bureaucracy has important features that can lighten our understanding of the organizational situation at the time studied. According to Fligstein (2001) bureaucracy eliminates all practices that escape the calculation such as love, hate, and all personal and irrational elements. The logical imperative at this time (the bureaucracy), so will the logic of efficiency in this sense underlying legal rational order to modern states where companies becomes legitimate authority. In this sense, companies, social workers and even the state promote rules and laws to ensure that rationality and efficiency within companies.

At the same time, Weber (1999) mention that despite this efficiency within companies, there is a political system that guides one's efficiency and behaviours of the actors themselves. Because of this fact we should not be forgotten that organizations function not only as tools but as instruments of power. Thus, we can say that what happened in the case of managers-engineers is the fact that these organizational actors, seeking power for themselves at the expense of other social actors.

In that sense, the movement of corporate governance monitor the managers by shareholders, organization's owners where the first ones worked act to oversee managerial practices since these actors imbued with a power and a certain hierarchy within the company put suspicion on their corporate practices.

iii. Arises the principle of "good corporate governance" Actually there is a mechanism of social control by those shareholders who put themselves in position panoptic (in the sense of the concept of Michel Foucault) watching the professional administrators of the company at any time can use their power to usurp the space hierarchical

symbolic and material occupied by shareholders. Thus, arises the principle of "good corporate governance" which is nothing more than a discussion about the efficiency of a type of capitalism that would be financial. In this sense our attempt would be to see the intricacies embedded within this social and economic agenda formatting in society.

According to Roberto Grun (1999), "good governance" is imposed on social actors through institutional pressures. In this sense, the author points out that this ideological instrument was only possible in the United States from the 1980s where it was created an environment of popular outrage against the excesses of high salaries and benefits of senior executives. That is, the good governance emerges as a solution to problems related to the issue of seizure of power by some social actors in that country.

To better explain this process of "good corporate governance", it is worth mentioning that the role of managers (formerly the corporate governance process) in the companies have the social skills to deal with people with different interests to have cooperation inside the firm that eventually would generate a more reliable production of goods. However Weber (1999) also argues that actors who will direct organizations have their own interests, in other words, working for the production of power itself, so in the case of policy instruments organizational managers dictated by social actors (instrumented with corporate governance) going against logic is management's own "self", and rules will be established between managers and shareholders.

12 iv. Labour market for the engineering profession in

Brazil According to the survey data "labour market of engineers and technologists in Brazil" by the national CONFEA-CREA in 2008 (Federal Council engineering and agronomy-regional council engineering and agronomy), and also according to the study of Solange Simões (2000), we can say that the labour market for engineers has been radically transformed.

A good percentage of unemployed engineers work as freelance consulting (12.9% according to the survey CONFEA-CREA, 2008 -Table 1), however the process of privatization of state companies in Brazil may lead these professionals to unemployment at first, however, large companies deprived of Brazil also will be concerned with total quality programs and reengineering and tend to keep large hierarchical differences within firms. Therefore, Brazil suffers a process hybrid being discovered slowly with the advent of new research where the careers of middle-class professionals, high as engineers is undergoing changes that include either the process deproletarianization the profession and now the process of proletarianization profession. This moment of uncertainty in Brazil is characterized both by an economic rise of popular groups to the middle class, instability and crisis in some sectors professionals already were legitimized in the middle class and that this mass "middle" increasingly more search their rights and benefits with regard to work and a lifestyle fairer.

13 VI.

14 Quantitative Results

To understand better the position of boarders and directors, we withdrew from the Bylaws of the company, their definitions:

15 Board

The Board is a body of great versatility and efficiency in corporate management. Your goal is to follow the Company's business in order to protect and enhance its heritage and maximize return on investment through the guidance of its business.

The Management Board take its decisions by committees, serving as an instrument of shareholders in governance of the Company's assets. (AES Constitution, 2011).

16 Directors

The Directors Commission is the executive body of the Company, being the Directors pursuant to the Bylaws, the representation of the Company, to perform the acts required for its proper functioning and implementation of the resolutions of the Board and the General Assembly.

The members of Directors Commission will perform their duties in accordance with the Company's corporate purpose, usually conducting business and operations in strict compliance with the provisions of the Bylaws, the decisions of the General Meetings of Shareholders and the Board. (AES Constitution, 2011). Now we will present the first results of the analysis of board and directors curriculum of AES Eletropaulo.

17 a) Coding of variables

For achieving a better graphical presentation the possible responses of each variable are coded as shown in Table 2.

18 b) Period before privatization

We can observe the following tables on descriptive analysis of data on directors before the company's privatization. Regarding to the position of directors in the period before privatization of the company, Tables 8, 9, 10, 11 and 12 explain the academic and professional status of 56 employees.

19 d) Analysis and Synthesis of descriptive statistics

Using the data from quantitative research, follow the synthesis of the descriptive analysis, followed by a brief discussion below:

20 i. University education of boarders

We can observe that according to our sample, discarding the cases unknown and anonymous, we can generalize that slightly more than half of the boarders attended for private universities before the privatization process of the company. Right after the privatization process, the number of graduations in private universities thins and increases the number of those who attended universities abroad and federal universities. In 44 cases of the total of 312 cases analysed, we do not know which universities they attended.

ii. University education of directors iii.

21 Postgraduate highlighted

The boarders, before privatization, the individuals in the company (those who did postgraduate) were divided between the areas of economics and business administration. After privatization, increase the group that focuses on schools as IBMEC and FGV and especially in the area of administration.

Among the directors, before privatization, the majority studied post-graduation in the administration area, and the second percentage in engineering and lastly in economics. After privatization, the majority of the directors start to attend postgraduate school abroad and the second highest percentage in IBMEC and FGV.

iv.

22 Most prominent profession

The most common profession among the boarders and directors of the company, both before and after privatization are the engineers.

However, the majority of the directors are engineers and other part studied in law schools. In the post-privatization this framework is modified because almost half of the individuals formed in the areas of administration and economy.

For instance, the directors, before privatization, the majority are engineers and administrators are the 20 (

23 F)

About the directors before privatization period, the percentage of those who graduate from private universities and those who graduated from the state universities is very close. After the privatization process, the percentage of those who received their education in private universities increases slightly, but is only a limited number of individuals who completed IBMEC and FGV. I.e., the highest probability is that most directors have attended private universities of distinct orientations and segments; and have not focused on the two universities that form executives focused on management and finance areas. lowest percentage. After privatization, the number drops slightly for percentage of engineers and becomes smaller the formation of economics.

It is highlighted in every moment Engineers because it is an electricity company, and at first as a state-owned the goal is offer quality energy to their consumers, and after privatization, the company aims to answer the shareholder value, but even so, we have engineers in the leading body in the two periods.

24 v. About professional activities of agents

Before privatization boarders are divided into three areas: government, business and other areas such as labour unions, academic, etc. After the privatization process the individuals who start to work at the company worked in finance in the first place and secondly, they are divided between other companies and electricity sector.

With regard to the directors did before privatization, almost half worked in the areas of labour unions, academic and others, and a quarter of them worked in the electricity sector. privatization, most of the directors he worked in the energy sector and a tiny part worked in government. And a new category of employment is created, work in the AES group that Eletropaulo became part of this holding named AES Group, where on average 15 of its officers and directors participate in other companies of the same group AES.

25 VII.

26 Final Considerations

After the process of explanation of theoretical and practical part of this research, in this article, we can get to some important findings. First we start with the proposition that both, the company and the careers inside

companies has changed in the transition to one type of capitalism, from productive to financial. Our figuration of the company in pyramid show the following hierarchy: 1 -owner of the company (or state in the case of public companies) 2 -managers (administrators), 3 -workers.

Secondly, because the transformation and transition from one type of productive to the financial capitalism, our figuration in the format of a hierarchical pyramid shows: 1 -shareholders; 2 -managers, board, directors and consultants, 3 -workers, mainly outsourced.

It can be concluded therefore, that our initial proposal can be confirmed with our results, since we could clearly see, in the case of the case study, the change in the fundamental characteristics of in the careers of the agents studied. Or somewhat, observed that in the period after privatization of the company, occurred a financialization of the agents, who start to do their studies abroad (before, they use to frequent the private universities). And the directors, who have no function directly linked to stock environment, continue with a more traditional posture, attending private universities and do not attending institutes focused on financial management.

Regard to the profession, both, before and after the privatization process, among directors and boarders, the profession that stands out is the engineering. After the privatization process, occurs an opening for a formation in economics courses.

The internationalization process is also highlighted through postgraduate courses of the individuals. After privatization there is an opening for courses taken abroad and also for national institutes focused on administrative and financial management.

Regarding to the professional activities of the agents, we observed that boarders have the tendency to have started working in finance areas after the period of privatization, previously this period; they worked in other positions, as unions, academics and other business. And, the directors still have maintaining the more traditional position, working in unions, academics, and other companies. Also, after privatization, increases the number of endogenous. In other words, increase the numbers of director who worked inside the electric sector.

Another important aspect that asks for attention is the fact that, different of the engineers who had a great expressivity in the construction of the Brazilian State, since Empire, the profession of economist starts to earn "breath" only after the 1930s, when the first economic courses are actually created. It is dated from 1930 to 1945, the period related to creation of the economics courses in the universities, and the expansion of the management practices and economic intervention. (GOMES, 1994).

However, it is only in the 1960s, that economists come to occupy a central position in the implementation of economic policies in the country. It is significantly highlight that before the creation of the economics schools, we had studies in accounting. And additionally, even after the creation of institutes of economics, the economics institutes were linked to the accounting course. It is only on September 22th, 1945, by Decree Law number 7.988, that the course of economic science is separated from the accounting and actuarial sciences course. (GOMES, 1994).

It is important also to focus that, the opening of the first economics courses, as FCEARJ (School of economic and administrative sciences in Rio de Janeiro) was open to a students that needed to work and study at the same time (more modest classes) because it was the only course that has vacancies for the night time. Therefore, there is a difference between recruiting students from economics and engineering courses. Because the last one, it would occur for the higher classes, so-called elite, from the imperial period. The engineering course compared to economics course, was much more competitive course, since it was required a higher score in the exams to enter in the course. (BRUNO, L. B.; LAUDARES, J. ??, 2000).

Reminding that, it is only from 1950 that started in Brazil the professional activity of economists. Therefore, since 1960 there are a growing number of undergraduate students of economics Universities, which overrides the number of undergraduate students in engineering and law Universities. The postgraduate courses in economics are created from the 1970s. But the massive occupation in strategic positions in the bureaucracy from part of economists, it is significantly from the second half of the 1980s. (GOMES, 1994).

It is noticed so that the late crystallization of economics courses, and the beginning of professional activity been consolidated from the 1950s, can be one of the reasons that the engineering was the first profession to consolidate in order to shaping and form the first Brazilian elites. (GOMES, 1994).

The importance of this of kind of formation reflected in this analysis since, the company has a substantial number of engineers in the leader position of the company until the present day. Thus, we observe a preference for hiring engineers inside Brazilian companies even after a possible opening for courses in economics and management in the country.

We live in a world where companies and individuals became financialized, but at the same time, we live in Brazil, with the repetition of traces of the past, that marked the mix between traditional and modern, which continues to highlight a profession that was part of a tripod of hierarchical professions, from the Empire country to the present day.



Figure 1:

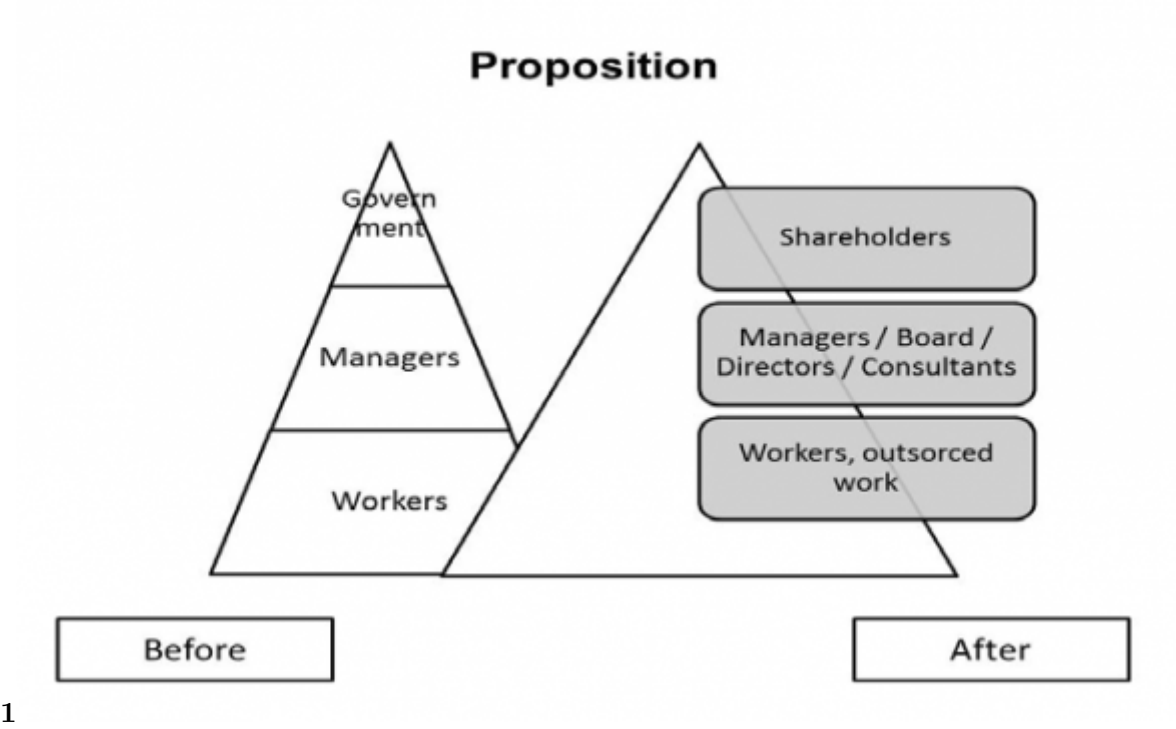


Figure 2: Figure 1 :

1

Branches that employ the first 49.2% of engineers	Until 49	49-249	250-499	500 or more	Total	Percentage
45 -Construction	21.930	(30.267)	(16.542)	(60.086)	(128.825)	49,2%
74 -Services primarily to companies	7.655	6.468	2.291	2.679	19.093	14,8%
	3.909	5.018	2.732	4.929	16.588	12,9%
75 -Public administration, defense and social security	176	1652	1.414	10.365	13,607	10,6%
40 -Electricity, gas and hot water	450	1.421	598	5.218	7.687	6,0%
34-Manufacture and assembly of motor vehicles, trailers and bodies	104	685	740	4.880	6.409	5,0%
Total of Engineers	34.224	45.511	24.317	88.157	192.209	49,2%

Source: CONFEA-CREA (2008).

Figure 3: Table 1 :

2

Variable	Answers	Legend
University of Under-graduate	Abroad	G1
	State	G2
	Particular (Paid)	G3
	Federal	G4
Formation of Under-graduate	IBMEC/FGV	G5
	Engineering	GF1
	Law	GF2
	Economy	GF3
	Other	GF4
	Administration	GF5
University of Graduate	Abroad	PG1
	State	PG2
	Particular Federal	PG3 PG4
	IBMEC/FGV	PG5
Formation of Graduate	Don't have	PG6
	Engineering	PGF1
	Law	PGF2
	Economy	PGF3
	Other	PGF4
	Administration	PGF5
Professional Background	Government	PP1
	AES Group	PP2
	Others 1 (Companies) Others 2 (Unions, Academic, others)	PP3 PP4
	Finances	PP5
	Electricity sector	PP6

Figure 4: Table 2 :

3

Undergraduate Degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
G1	1	2.08	1	2.08
G2	18	37.50	19	39.58
G3	27	56.25	46	95.83
G4	2	4.17	48	100.00

Frequency of missing observations = 8

Figure 5: Table 3 :

4

16

(F)

Major of undergraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
GF1	22	41.51	22	41.41
GF2	14	26.42	36	67.92
GF3	13	24.53	49	92.45
GF4	4	7.55	53	100.00
Frequency of missing observations = 3				

Figure 6: Table 4 :

5

Degree of Postgraduate	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PG1	8	15.69	8	15.69
PG2	8	15.69	16	31.37
PG3	4	7.84	20	39.22
PG4	1	1.96	21	41.18
PG5	2	3.92	23	45.10
PG6	28	54.90	51	100.00
Frequency of missing observations = 5				

Figure 7: Table 5 :

6

Major of Postgraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PGF1	6	10.91	6	22.22
PGF2	2	3.64	8	29.63
PGF3	9	16.36	17	62.96
PGF5	10	18.18	27	100.00
PGF6	28	50.91	55	100.00
Frequency of missing observations = 1				

Figure 8: Table 6 :

7

Professional Background	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PP1	13	23.21	13	23.21
PP3	13	23.21	26	46.43
PP4	16	28.57	42	75.00
PP5	5	8.93	47	83.93
PP6	9	16.07	56	100.00

Figure 9: Table 7 :

8

Undergraduate Degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
G2	8	40.00	8	40.00
G3	9	45.00	17	85.00
G4	1	5.00	18	90.00
G5	2	10.00	20	100.00
Frequency of missing observations = 1				

Figure 10: Table 8 :

9

Major of undergraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
GF1	15	71.43	15	71.43
GF3	1	4.76	16	76.19
GF5	5	23.81	21	100.00

Figure 11: Table 9 :

10

Degree of Post-graduate	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PG1	1	4.76	1	4.76
PG2	6	28.57	7	33.33
PG5	3	14.29	10	47.62
PG6	11	52.38	21	100.00

Figure 12: Table 10 :

11

Major of Postgraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PGF1	3	14.29	3	14.29
PGF3	2	9.52	5	23.81
PGF5	5	23.81	10	47.62
PGF6	11	52.38	21	100.00

Figure 13: Table 11 :

12

Professional Background	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PP1	1	4.76	1	4.76
PP3	1	4.76	2	9.52
PP4	10	47.62	12	57.14
PP5	4	19.05	16	76.19
PP6	5	23.81	21	100.00

c) Period after privatization

Tables 13, 14, 15, 16 and 17 explain the academic and professional status of 226 employees occupying positions of boards.

Figure 14: Table 12 :

13

Undergraduate Degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
G1	36	15.93	36	15.93
G2	25	11.06	61	26.99
G3	61	26.99	122	53.98
G4	34	15.04	156	69.03
G5	26	11.50	182	80.53
G6	44	19.47	226	100.00

Frequency of missing observations = 44

Figure 15: Table 13 :

14

Major of undergraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
GF1	86	40.57	86	40.57
GF2	16	7.55	102	48.12
GF3	50	23.58	152	71.70
GF4	7	3.30	159	75.00
GF5	53	25.00	212	100.00

Frequency of missing observations = 14

Figure 16: Table 14 :

15

Degree of Post-graduate	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PG1	44	19.47	44	19.47
PG2	29	12.83	73	32.30
PG3	15	6.64	88	38.94
PG4	25	11.06	113	50.00
PG5	59	26.11	172	76.11
PG6	54	23.89	226	100.00

Figure 17: Table 15 :

16

Major of Postgraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PGF1	32	19.16	32	19.16
PGF2	14	8.38	46	27.54
PGF3	28	16.77	74	44.31
PGF4	2	1.20	76	45.51
PGF5	91	41.18	167	75.57
	54	24.43	221	100.00

Frequency of missing observations = 59

Figure 18: Table 16 :

17

18

(F)

Professional Back-ground	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PP1	15	6.64	15	6.64
PP2	21	9.29	36	15.93
PP3	47	20.80	83	36.73
PP4	39	17.26	122	53.98
PP5	60	26.55	182	80.53
PP6	44	19.47	226	100.00

Figure 19: Table 17 :

18

Undergraduate Degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
G1	14	16.47	14	16.47
G2	5	5.88	19	22.35
G3	41	48.24	60	70.59
G4	10	11.76	70	82.35
G5	4	4.71	74	87.06
G6	11	12.94	85	100.00

Frequency of missing observations = 11

Figure 20: Table 18 :

19

Major of undergraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
GF1	42	55.26	42	55.26
GF2	5	6.58	47	61.84
GF3	12	15.79	59	77.63
GF4	11	14.47	70	92.11
GF5	6	7.89	76	100.00

Frequency of missing observations = 9

Figure 21: Table 19 :

20

Degree of Postgraduate	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PG1	25	30.12	25	30.12
PG2	8	9.64	33	39.76
PG3	2	2.41	35	42.17
PG4	4	4.82	39	46.99
PG5	17	20.48	56	67.47
PG6	27	32.53	83	100.00

Frequency of missing observations = 2

Figure 22: Table 20 :

21

Major of Postgraduate degree	Frequency	Percentage	Accumulated Frequency	Accumulated Percentage
PGF1	4	4.71	4	4.71
PGF2	10	11.76	14	16.47
PGF3	3	3.53	17	20.00
PGF5	41	48.24	58	68.24
PGF6	27	31.76	85	100.00

Frequency of missing observations = 27

Figure 23: Table 21 :

22

Professional Background	Frequency	Percentage	Accumulated	Frequency	Accumulated	Percentage
PP1	2		2.41	2	2.41	
PP2	13		15.66	15	18.07	
PP3	11		13.25	26	31.33	
PP4	15		18.07	41	49.40	
PP5	11		13.25	52	62.65	
PP6	31		37.35	83	100.00	
Frequency of missing observations = 2						

Figure 24: Table 22 :

23

Boards before privatization	Directors before privatization
? The majority (56.25%) graduated in private universities. And 37.5% graduated in state universities.	? The majority (45%) graduated in private universities and 40% in the state universities.
? The course more present is engineering (41.51%). and 22.45% studied law.	? The course more present is engineering (71.43%).
? Their Post-graduation, 18.18% got in the field of administration, and economics is just behind with 16.36%.	? Approximately 23.81% got the post-graduation in the administration area.
? According to them professional background, is almost equally (23% and 29% for each area) between the areas of government, other companies that are not in electricity sector and unions, academia and other jobs.	? About their postgraduate, 23.81% studied in administration area, 14.29% in engineering and 9.52% in economics.
	? Almost half of the directors (47.62%) worked in labour unions, academics, and others jobs, and a quarter worked in the electricity sector.

Source: Authors (2014)

Figure 25: Table 23 :

Conselheiros pós privatização	Diretores pós privatização
? The majority (26.99%) graduated in private universities. 15.93% graduated abroad and 15.04% studied in federal universities.	? Most of them (48.24%) graduated in private universities and minority (4.71%) in IBMEC or FGV.
? Also, the most popular is the Engineering course (40.57%), after administration course with 25% and 23.58% in economics course.	? Also, the most present is the course of Engineering (55.26%), followed by Economics (15.79)
? Departing for the analysis of post-graduate, 26.11% did in the Universities IBMEC and FGV. And the field of Administration is the most popular (41.18%).	? Departing for the analysis of post-graduation, 30.12% studied abroad, followed by 20.48% that did in IBMEC or FGV. The postgraduate area of administration is the most common (70.69%).
? The professional background of them is located mostly in the financial area (26.55%) followed by areas: other companies (20.80%) and electricity sector (19:47%).	? Finally, 37.35% of the directors had experience in the electricity sector in their professional backgrounds and only 2.41% in the government.

Source: Authors (2014)

Figure 26: Table 24 :

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