

# 7

## Brazil: Between Global Trends and National Politics – Restructuring and Workers' Responses

*Angela Maria Carneiro Araújo, Leda Gitahy, Alessandra Rachid and Adrianna Marques da Cunha*

### Introduction

The internationalisation of the Brazilian white goods industry in the 1990s raises a debate on the restructuring processes of its major firms and their consequences for employment, work conditions, as well as for industrial relations, especially with regard to trade unions.

This chapter will discuss the question of what the internationalisation of this industry means to labour. Within this objective it will focus on the technological and organisational changes in a cooker factory located in the Campinas Metropolitan Area, State of São Paulo, and their consequences for the workers and the union. It will examine the impacts of the firm's restructuring on the size and composition of the labour force, on working conditions, on the workers' perceptions of the changes and on the trade union's action.

The firm chosen for the case study is the main Brazilian cooker company (BrazilCo), whose market share is around 40 per cent of domestic sales. It is a distinctive example of the recent changes in the development of the Brazilian white goods industry. BrazilCo's restructuring has been affected by internationalisation through a cross-border acquisition and technological and organisational changes aimed at production efficiency and cost reduction.

The study is based on secondary data about the Brazilian white goods industry, the evolution of employment in the sector and the metalworkers' characteristics in the Campinas region. Fieldwork data were collected in the first semester of 2002. In the cooker factory interviews were conducted with managers from sales, production, logistics, quality and human resources to obtain information about the restructuring process. A survey was also made with the administrative staff (48 persons, 41 men and seven women,

including directors, managers and supervisors) and with 53 production workers (41 men and 11 women) from different areas of the factory (stamping, enamelling, painting, assembly lines, maintenance, tool shop, and stock) to evaluate their perceptions of the changes.<sup>1</sup>

The first part of the paper shows the development of the Brazilian white goods industry, emphasising its denationalisation and performance in the 1990s. The second part presents the company studied and the technological and organisational changes implemented. The following section analyses the impacts that the firm's changes have brought to the structure of employment, the division and content of work, the working conditions and to the characteristics of its labour force. Workers' perceptions of the changes are discussed in the fourth part. Finally, the context of industrial relations in Brazil and the role of the Metalworkers Union are explored.

There is clearly evidence of globalisation in the Brazilian case, in particular foreign ownership dominates. There is also evidence that outsourcing has increased, so too labour productivity, pressure on numbers employed, stress and RSI. However, our argument is that in the Brazilian case, national politics counts both for the development of the white goods sector, and for the kind of consequences management strategies have on employment relations. Economic and industrial policies were important for the way this sector was reshaped by capital concentration and internationalisation and by technological and organisational innovations. Labour market regulation, political difficulties the government faced to flexibilise labour law, and the political orientation of the union can explain why in this case study a strong flexibilisation and precariousness of working conditions and an important change in labour relations were not observed.

## **The Brazilian white goods industry**

The white goods industry was introduced in Brazil at the end of the 1940s, during the initial phase of the import substitution policy adopted by the Brazilian government. It followed in the wake of demographic and urban expansion in Brazil, as well as the creation and development of a large consumer market in the urban areas of the country. There was a significant increase in the Brazilian population in the period from 1940 to 1970 with growth rates of roughly three per cent per annum. Brazil also saw a steady increase in the concentration of its population in urban areas starting in the 1940s, mainly in the large cities. In 1940, 31 per cent of Brazil's inhabitants were city dwellers. This percentage climbed progressively from 36 per cent in 1950, 45 per cent in 1960, 56 per cent in 1970 and 68 per cent in 1980 to 78 per cent in 1996. The portion of the Brazilian population that lived in cities with over 500,000 inhabitants rose from 11 per cent in 1940 to 36 per cent in 1996 (Camarano and Beltrão 2000).

The international scenario was of increased household appliance production and consumption after the Second World War. At that moment, the main Brazilian producers in the segment of white goods for refrigeration were founded. It is worth recalling that the Brazilian producer of gas cookers under study in this chapter (BrazilCo) had already been founded in the 1930s at the very onset of the creation of a metal-mechanical sector in Brazil. The limitations in the country's capacity for producing electric energy at that time may be linked to the noted predominant demand for gas cookers, due to the high costs of electricity. The electric cookers have been directed towards the high end of the Brazilian consumer market.

In the 1970s and 1980s this industry came to be characterised by the existence of a reduced number of large national family-owned businesses and by the presence of two large national groups that controlled the major companies in the sector (Gitahy and Cunha 1999). The entry of foreign groups during the 1990s played a role in reshaping the industry's structure of financial control, chiefly as a result of the acquisition of leading national companies (including the household appliance producers and some of their suppliers, as the main Brazilian producer of hermetic compressors).

The leading world groups entered the Brazilian White goods industry mainly through the acquisition of its major firms, with eyes on the size and growth potential of both the internal and regional markets (Mercosul) as well as on the previous existence of a structured production chain. That chain was characterised by the development of important links among its different levels, by the presence of strategic suppliers (like the suppliers of the main component for refrigeration appliances: hermetic compressors) and by a strong external commercial insertion.

The Brazilian white goods industry is still an oligopoly, though now dominated by large internationalised foreign groups that directly or indirectly control the major companies. The four largest companies in Brazil (Whirlpool, Electrolux, Bosch-Siemens Hausgeräte and General Electric) accounted for about 72 per cent of the total revenues of the industry in 1997 (Cunha 2003). The foreign groups that control Brazilian companies are the four main conglomerates within the world's white goods market.

Technological maturity represents a key feature in the white goods industry. Technological opportunities are to be found in the possibilities of incremental product and process developments. Product innovations have been related to changes in consumers' tastes, habits and needs, innovations that stimulate a sense of product obsolescence. As far as gas cookers are concerned, it is interesting to observe that their features and design certainly change if the product is directed towards the high or the low end of the Brazilian consumer market. Bigger and more sophisticated (with more features and different design) cookers are directed towards the high end of the market and smaller and simpler products towards its low end. Besides, in general, cookers' size has been reducing due to the shrinking of Brazilian

families and of their houses or apartments. Still, one can observe a growing preference from Brazilian consumers to buy more sophisticated and expensive cookers for esthetical and social reasons (even if they don't cook their own meals very often). In turn, process innovations have been associated with the dissemination of microelectronic automation and new techniques for the planning, organisation and management of production and quality. They are aimed at reducing both costs and stock levels and at increasing flexibility.

In the 1990s, the leading companies in the Brazilian white goods industry underwent productive restructuring processes, especially after their acquisition by the main worldwide producers and clearly following an international trend. White goods firms closed plants with traditional technology and opened new technologically updated ones. Besides, they bought new equipment and introduced new managerial methods seeking the modernisation of production and cost reduction. Moreover, they developed a higher quality supply chain. This restructuring process has been extended to domestic suppliers, both national and foreign.

During the last decade, Brazilian companies produced the entire range of white goods and introduced market segmentation according to income groups. They began to shift their production focus to the international market, especially stimulated by agreements with, or acquisitions by, foreign companies. Yet the production of these companies was predominantly aimed at the internal market. The major Brazilian supplier (one of the world leaders) of hermetic compressors began an important productive internationalisation before its acquisition, through external investments, involving the building up of production plants in foreign countries, the acquisition of foreign firms and the development of joint ventures, especially with Asian firms. It made also a significant effort aimed at the improvement of its external commercial insertion, including the expansion and diversification of its exports' destination.<sup>2</sup>

The Brazilian white goods industry was responsible for generating revenues in the order of roughly US\$ 2 billion<sup>3</sup> and for providing jobs for 22,422 workers<sup>4</sup> in 2000. The average annual growth rate of revenues in the industry during the 1990s was quite modest (only four per cent) and employment fell by four per cent per annum between 1994 and 2000 (Cunha 2003). Sales had reached a peak of 12.9 million units of white good appliances in 1996, 4.4 million cookers and 4.0 million refrigerators. In the year 2000, internal sales stood at 9.6 million units (3.6 million cookers and 3.2 million refrigerators).<sup>5</sup>

The performance of the Brazilian white goods industry has always been closely linked to the direction defined by the macro-economic policies adopted by the Brazilian government.<sup>6</sup> The economic recovery witnessed in Brazil from 1994 to 1996, mainly after the Brazilian government adopted a plan aimed at maintaining prices stable (known as the 'Plano Real'),

brought about high levels of annual growth in the consumption of white goods. This expansion in sales (as well as in the revenues of the companies in the sector) occurred due to stable inflation, which led to increased real incomes, combined with a drop in interest rates and expanded credit lines to consumers, generating a higher demand for products from those with lower incomes. Sales also rose because of the demand of high-income consumers seeking more sophisticated products, whose internal availability had been increased by lower import tariffs (as a result of a policy to implement free trade adopted in the beginning of the 1990s by the Brazilian government) and by a foreign exchange policy directed towards increasing the value of the national currency (which started with the adoption of the plan for stabilisation set off in the middle of the 1990s).

The rising trend in sales of white goods changed abruptly after 1997 in the wake of a phase of deterioration in the country's economic situation. This period was characterised by increased unemployment, more cases of default and higher interest rates, not to mention the crisis in the retail sector. Revenues and job openings started to show a recovery in 2000 with respect to the previous year (they presented, respectively, increases of roughly 24 per cent and two per cent).<sup>7</sup> Nevertheless, at the end of the decade revenues had only managed to reach the level registered in 1992 and the number of job openings failed to reach the levels at the beginning of the decade. This trend clearly demonstrates the problems that the sector was facing, especially during the second half of the 1990s, problems which also produced a high level of idle capacity.

The penetration rates for some traditional white goods, such as cookers (98 per cent), and refrigerators (85 per cent), reveal a high level of saturation amongst Brazilian consumers. Saturation levels for other types of appliances, such as freezers (19 per cent), washing machines (34 per cent), clothes dryers, dishwashers, microwave ovens and air conditioners, are much lower.<sup>8</sup> This can be explained by the consumers' perceived necessity for such appliances and the income level of the consumer population. The future expansion in white goods sales in the Brazilian market will be based on the demand for appliances that have very low levels of saturation, which will depend particularly on the evolution of the population's buying power and on the replacement rate of appliances that have high levels of physical saturation.

As far as foreign trade of white goods is concerned, it is possible to affirm the following: First, exports and imports of final products have not played a significant role in the revenues of the Brazilian white goods industry. Exports and imports reached, respectively, an average annual stake of roughly eight per cent and one per cent of revenues in the 1990s.<sup>9</sup> Secondly, imports of components have not had a significant impact on this sector – the percentage of national content is high.<sup>10</sup> Thirdly, the persistence of a trade surplus highlights the fact that the industry is more

an exporter than an importer. Finally, the trade surplus has increased approximately 80 per cent from 1990 to 2000, revealing that the firms are interested in sustaining their export performance after the period of ownership denationalisation (Cunha 2003).

### **The Brazilian cooker company's restructuring process**

The firm studied, BrazilCo, is a Brazilian cooker company of long standing, founded at the onset of the import substitution period and located in the region of Campinas, State of São Paulo. The company remained a family firm until the beginning of the 1990s, when a process of administrative modernisation changed the way the company worked. The Company was purchased in the middle of the decade by a North American Multinational (NAMN), whose goal was to enter the Brazilian market to produce the whole line of white good appliances in the country.

In 2000, BrazilCo had around 2000 employees, a total revenue of US\$ 170 million<sup>11</sup> and it sold around 1.3 million cookers, which represented a little more than one third of all domestic sales in that year,<sup>12</sup> making it the main Brazilian cooker manufacturer. In 2002, the factory had an output of around 8,500 cookers per day, which represented something close to 65 per cent of its daily production capacity.

The company's sales were initially focused on small cities, outside of the state of São Paulo. This strategy allowed its products to become very well known in the country. Nowadays, the company continues to target domestic production and sales to the internal market, but it also imports appliances made by the group in other countries. The BrazilCo brand name is used for simple models of cookers directed towards lower level income groups and the NAMN brand name is used for cookers with features directed towards higher-level income groups. The company's main clients are medium-sized and large retailers, with the top 100 retailers being responsible for 70 per cent of the company's sales. The share that supermarkets have held in sales has increased from 1997 on, when some of these establishments began to sell household appliances. As far as exports are concerned, they make up around 20 per cent of the company's total revenues and are destined to approximately 50 different countries, mainly Argentina, Mexico and Chile.

BrazilCo initiated a process of modernisation in the 1980s, following a general trend observed in the Brazilian white goods industry. Changes at that time involved investments in new equipment for the stamping, painting and enamelling sectors and for the transport of pieces and an attempt to implant a kanban system that didn't succeed.

The restructuring process was intensified with the acquisition by NAMN in the middle of the 1990s. It included changes in the firm's organisational structure, in its production and work organisation and in inter-firms

relations through downsizing and outsourcing. The downsizing led to the reduction in the firm's hierarchical levels. According to a manager interviewed, the organisational structure was flattened in order to decentralise its decision-making processes and to increase its capacity to respond to the constant changes in the market's competitive scenario.

The main changes in production organisation included investments in new equipment, the change of some parts of the plant layout, the formalisation of the quality system and new forms of relation with suppliers.

The company adopted new equipment to automate the assembly lines and make them more flexible. Nevertheless, they have not yet achieved very high levels of automation. Assembly is one of the most difficult stages to automate in the cooker production process, because various types of thin metal sheets have to be joined. Despite these difficulties, its automation is considered a priority due to the introduction of new NAMN's models and mainly due to the necessity to reduce the incidence of Repetitive Strain Injury (RSI)/Osteomuscular Work-Related Disease (OWRD). However, some of the interviewees noted that the plant uses equipment that is not found in any other cooker factory in the country, such as the progressive tools that are used to make the cook tops and the equipment used to produce the gas tubes.

The changes in the plant layout were not so significant. There are few cells in metal stamping and there have been no great changes in the positioning of the machines. The layout of the factory continues to be predominantly functional, with separate sections for stamping, enamelling and so on.

During the 1990s, BrazilCo conducted a gradual formalisation of its quality system, and this enabled the company to obtain the ISO 9002 certification, which is particularly important to export activities.<sup>13</sup> At the end of the decade, BrazilCo adopted the Six Sigma program, following instructions from its foreign headquarters, which imposed the adoption of Six Sigma to all companies belonging to the group. Six Sigma's objective is to attain a smaller number of errors per million operations in all sections of the company. The term 'Six Sigma' was coined by Motorola and has been used to denominate a managerial package involving the combined use of various techniques, which already existed. In BrazilCo, the programme includes problem-solving methodologies, Statistical Process Control (SPC), Failure Mode and Effect Analysis (FMEA), Design of Experiments (DOE) and 5S or housekeeping.

The Six Sigma program has a specific manager who is responsible for its implementation and co-ordination and is called 'Black Belt Master'. The employees that have already been trained are called 'Green Belts' and they take part in groups responsible for generating improvements, reducing costs and developing projects geared towards quality. These groups are formed ad hoc for trouble-shooting regarding a specific problem or for

improving a specific process or product.<sup>14</sup> The groups are made up of people from all levels that can bring contributions to the issue under study, such as managers, engineers, project designers, technicians and shop floor workers, when deemed necessary.

As part of the restructuring process, many activities have been outsourced, although, an interviewee considers it one of the most vertically integrated cooker factories. Indirect activities outsourced include product design, final product movement in the factory, tool and mould construction. Direct activities outsourced include bobbin cutting, the production of wire parts, the stamping of drawn steel parts – a labour intensive activity – and part of the silkscreen and enamelling processes.

The outsourcing process led to changes in the relationship between BrazilCo and its suppliers. The company uses an external just-in-time<sup>15</sup> with its suppliers, which must deliver parts daily or, in some cases, several times per day, and it usually keeps enough stock for two days' production. This system permits a more flexible response to clients, which is of utmost importance in a sector plagued by constant changes in their clients' demands, which derive from the lack of stability in the demand for domestic appliances. The company is training its suppliers as part of its quality programme, and now many of them have also received the ISO 9000 certificate.<sup>16</sup>

These changes in production organisation did not lead to major changes in the work organisation. Most of the employees are stationed in the assembly line area, where they appear to work very intensively. The performance of tasks along these lines is governed by pre-determined time frames, within which workers must work. Short cycles of these repetitive tasks make up their working day. Even in the production stages with cellular layouts, each worker still carries out just one operation. Yet there is job rotation within cells and in the assembly lines every one or two hours, another change introduced in order to reduce the incidence of RSI/OWRD.

The company's main programme at the time of the research, the Six Sigma, rarely involves shop floor workers in its groups. To obtain their commitment to quality objectives, a suggestion program was specifically designed for them, which rewards individuals or groups if their suggestions are accepted and carried out by the managers and if they generate cost reductions. However, if a suggestion is accepted its copyright is transferred to the company, allowing it to patent it. The worker, therefore, automatically loses the property of his (her) creation.

Restricted workers' participation can also be observed in the training program for Six Sigma, which was only attended by managers, supervisors and others holding positions of responsibility. The Six Sigma manager, for instance, took part in a five-month training program in the US, having then received the title of 'Black Belt Master'. The 'Green Belts', who take part in the Six Sigma projects groups, also received intensive training, but

they were mainly from the engineering and technical areas. Shop floor workers, on the other hand, had only become acquainted with this new method either through a primer containing general information or through posters on the plant's walls.

Most of the time, workers just receive incentives to finish middle or high school. However, the majority of them had attended some training course, the total provision for workers' training being around 36 hours per year, according to the Human Resources Manager. The training programmes for production workers were generally directed more towards operational issues, involving aspects such as safety in the workplace, preventive maintenance and quality control, many of these programmes aiming to transfer more responsibility regarding quality over to the workers. These courses were generally short ones, which take a few hours, some of them being offered on the job.

The firm usually invests in the behavioural training of shop-floor workers in order to develop their responsibility and commitment. Many of the workers interviewed mentioned they had attended speeches and meetings with managers and supervisors whose main aim was the changing of attitudes.

Although BrazilCo does not adopt team working, the workers' knowledge about work group (Table 7.1) reveals its importance in terms of behavioural improvement. All of those interviewed affirmed that they work in groups for they related it to mutual help and a good work relationship. Some said they work in groups just because they rotate between working stations – that is, to avoid RSI. Only one of them associated the work group concept with autonomy.

**Table 7.1 Management Methods Known by BrazilCo's Managers and Workers**

Management Method	Managers percentages (n = 48)	Workers percentages (n = 53)
Total Quality	98	100
Certifications	96	96
Work groups	98	89
Six Sigma	96	85
Preventive maintenance	79	72
Quality Control Circles	71	38
Flexible production	73	23
Lean production	54	23
Internal just-in-time	90	15
External just-in-time	85	9
Re-engineering	79	9
Statistical Process Control	73	9
<i>Kaizen</i>	60	2

The firm invests far more resources in the training of managers, supervisors and administrative personnel than in that of shop floor workers. That is one of the reasons why some of the workers were not so familiar with the management methods, compared to the managers (Table 7.1). Most workers (47 from the 53 interviewed) knew that BrazilCo was introducing the Six Sigma program, but they didn't have much information about it. Some had become aware of it because 'there are some posters in the company'. One of them said: 'we don't have free access to it'. It was very different for most of the managers, who knew it well. Many of them had already taken part in a Six Sigma group.

### **Impacts of restructuring on employment and working conditions**

The consequences of this process of restructuring, for workers as well as for managers, have been of great significance. In the case study, as in the white goods industry and in the metal sector as a whole, the introduction of technological and organisational changes has affected the structure of employment, the recruitment policy, the division and content of work, the working conditions and the characteristics of the workforce (Araújo et al 2002).

The intensification of the restructuring process in the metal and in white goods sectors during the 1990s together with a persistent economic crisis caused a significant reduction in employment alongside increased productivity for local companies. The loss of jobs was directly associated to organisational and technological changes and also to outsourcing. The move towards outsourcing productive activities and the related redefinition in the division of labour amongst companies in the supply chain have contributed to trigger an important loss of jobs, specially of shop floor workers, as well as an increase in productivity and a change in the distribution of employment amongst companies of different sizes (Araújo and Gitahy 2003; Araújo et al 2002; Gitahy and Cunha 1999).

The metal manufacturing sector of the Campinas region employed 71,095 workers in 1989. The number of jobs in this sector decreased steadily during the 1990s, reaching a level of 43,798 in 1998. However, in the last few years, due to the set up of new factories in the region, a slight increase in the number of jobs has been witnessed in this sector, which reached 49,000 in 2000 and employed roughly 45,000 workers in 2002.

Employment in the white goods industry fell between 1994 and 2000 by 25 per cent for Brazil as a whole and 30 per cent for Campinas. Similarly, at BrazilCo, the restructuring process led to a significant reduction in the number of workers. Dismissals increased towards the end of the decade, due mainly to the changes introduced after the acquisition. In 1996, there were 2,600 employees in the plant. This number was reduced to around 2,100 employees in 2000 and, reduced once again, to around 1,750 in 2001. This represents a reduction of 33 per cent in the total number of

employees between 1996 and 2001. Moreover, there was a reduction of 28 per cent in the number of shop floor workers in less than two years (Table 7.2)

The reduction of jobs also reached administrative and management staff due to the flattening of hierarchical structure and to the decentralisation of functions. Initially, the number of technical, administrative and managerial positions was reduced, but in recent years, there has been some growth in the number of staff involved in administration and planning.

The introduction of technological and organisational changes has also affected the company's recruitment policy. BrazilCo, at the time of the study, required that the applicant should have completed at least elementary school (i.e. eight years of schooling in the Brazilian schooling system) and it favoured candidates who were not very young and married. Immediately after the acquisition by NAMN, preference was given to single young workers, with a higher schooling level. However, in the last years this policy was changed for the company felt that married and more mature workers, who were in the age bracket between 35 and 45 years, had a greater sense of responsibility and a greater willingness to get involved with the company's goals.

Another way to ensure that hired workers would have a sense of responsibility and that the company would be able to obtain a stronger commitment from them was through using inter-personal networking. In over half of the sample the workers had some relative who was working in the company and 34 of the workers had got the job through relatives and/or friends.<sup>17</sup>

At BrazilCo, shop floor workers work a standard 44-hour working week and are permanent workers. According to the labour legislation, established since 1943 (The Consolidation of Labour Laws – CLT), workers have first a probationary three month contract and after this they become, automatically, permanent workers. The legislation guarantees 30 days paid holidays, one day of rest per week, eight hour working day, minimum wage, sick leave, retirement, special female rights (as paid maternity leave), a Christmas bonus (equivalent to one month wage) and a sum paid as compensation when a worker is dismissed.

When the company needs to increase production for seasonal reasons it still uses overtime or contracts temporary workers through an agency. These contracts last for only three months and can be renewed for no more than another three months. BrazilCo could not take advantage of temporary contracts and annualised hours to adjust its production to demand fluctuations because of the opposition of the Metalworkers Union. Thus, precarious forms of contracting were not used inside the company although it sought to flexibilise its production organisation mainly through personnel reduction and externalisation of productive activities, via outsourcing.

**Table 7.2 White Goods and Related Employment in Brazil, 1994–2000**

	1994	1995	1996	1997	1998	1999	2000	2001	1994–2000 percentage change
White Goods Industry – Brazil*	29,990	23,758	26,623	26,393	22,093	22,093	22,422	–	(–25)
White Goods Industry – Campinas*	4,835	5,041	2,424	4,646	4,224	3,557	3,406	–	(–30)
Metalworkers Campinas*	55,059	49,570	43,919	46,390	43,798	43,698	49,102	–	(–11)
BrazilCo employees	–	–	2,600	–	–	–	2,100	1,750	(–33) 1996–2001
BrazilCo production workers	–	–	–	–	–	–	1,800	1,290	(–28) 2000–2001

Source: \*RAIS Data base/Ministry of Labour – Brazil.

Concerning the division and content of work, those changes, on the one hand, have facilitated the execution of tasks and have reduced the risks of accidents, through the acquisition of new computerised machines (such as presses, for example) and the use of automatic tooling in the assembly lines. On the other hand, they have led to the quickening of the pace of work through the transfer of responsibilities and new tasks to shop floor workers, such as cleaning the workplace, visual inspection of parts and minor procedures in machine and tool maintenance. Besides, the requirement of a greater involvement of the workers and the pressures for the reach of quality and productivity goals together with inadequate conditions of the work environment have brought negative consequences to workers' health.

According to one of the managers interviewed, one of the problems that the company was deeply concerned about was how the workers' hearing capacity could become impaired or even lost, for this could occur even when protective equipment was worn, because of the very high noise level in the factory. Regarding the issue of impaired hearing or deafness, the factory was starting to measure the hearing capacity of new recruits in order to monitor any hearing impairment. The other and most important concern was the rise in the number of cases of RSI/OWRD at the firm, particularly in the last seven years. This had been due to the addition of new tasks to existing jobs, greater controls on breaks ('wasted time') and the general intensification of what was essentially repetitive work. Data from the firm suggested that around 10 per cent of the shop floor workforce was suffering in some way from the effects of repetitive strains.

The firm's major preoccupation in that respect was on how to find a solution to the problem within the assembly lines. Job rotation was performed within the few existing cells in the metal stamping sector and in the production lines every one or two hours, and ten-minute gymnastics classes were also being offered on a daily basis. In addition, projects and studies were being carried out, with the aim of improving the ergonomic conditions at the workstations.

Discussions with managers from the Production and Human Resources areas suggested that there were two main reasons for the firm's concern with those occupational health issues. Firstly, the local union had made health risks at work a very visible theme. Secondly, there was a need to reduce costs related to the job stability guaranteed to workers who got RSI, which was an agreement that had been established with the union.

Around 80 per cent of both male and female workers said they were satisfied with their conditions of work. This may be related to the fact that the firm had introduced technological changes in some sectors (for instance, in the stamping and painting areas) and incremental changes in many pieces of equipment, improving the performance of a large number of tasks on the shop floor. In addition, the cleanliness of the workplace, the

creation of spaces to rest and meet colleagues, may well have contributed to that positive evaluation of the work environment.

Nevertheless, around 59 per cent of those interviewed affirmed that they felt frequent physical discomfort at work in the month before the interviews, the main complaints being of backaches and pain in the legs. The discomfort caused by dust in the air was an issue brought up by 28 per cent of the interviewees, who worked in some specific sectors of the factory (in the painting sector, for example). The conditions in terms of temperature, mainly excessive heat, were mentioned by roughly 38 per cent of the workers as a factor that caused frequent discomfort.

The intensification of restructuring in the firm led to a significant change in workforce composition. We can observe that the workforce became better educated and stable, and the trend also shows the permanence of older workers, with a longer time on the job. The overwhelming majority of both managers and workers (more than 80 per cent) were male, married, had children and came from other towns (77 per cent of the workers and 65 per cent of the managers had been born in other cities), hence, being migrants. The average amount of time that the employees had been working at the company was quite high among the workers (an average of 10 years). The worker who had been the longest time in the company worked there for 23 years. In contrast, among the managers, there was one group that had been working there for a reasonably long time. Yet many of them had been hired after the company's acquisition.

Against the trend observed between 1989 and 2000 in the region's metal industry, where women's participation increased constantly (Araújo and Gitahy 2003), BrazilCo presents the reverse process. According to some women workers interviewed, the firm ceased to hire women for production in the second half of the 1990s. They became reduced to eight per cent of the total number of employees and to an even lower proportion in the shop floor. According to some managers, although the firm adopts a policy that forbids any kind of discrimination, the decrease in the number of women was due to the high incidence of RSI among them, for they were concentrated in the assembly lines and in the more repetitive tasks.

Data in the tables below show the characteristics of BrazilCo's workforce in relation to age, schooling, sex and wage levels. Analysing Table 7.3, one can see that most of the workers had concluded their high school studies or had reached even higher levels of schooling and, with regards to age, most found themselves in the age bracket ranging from 30 to 39 years old (the average age being of 34.5 years old). The greatest portion of the workers with higher ages (those between 40 and 49) had lower levels of schooling. Among the 11 people who fell into this age bracket, only three had finished their high school studies and 1 worker was attending university. On the other hand, the group of younger workers (those with ages ranging from 20 to 29) had a higher level of schooling, for the majority had already obtained their high school diplomas.

**Table 7.3 Age and Level of Education of BrazilCo Workers and Managers**

	AGE	Incomplete Elementary Schooling <sup>(1)</sup>	Concluded Elementary Schooling <sup>(2)</sup>	Incomplete High School Level <sup>(3)</sup>	Completed High School Level <sup>(4)</sup>	Incomplete University Level <sup>(5)</sup>	Completed University Level <sup>(6)</sup>	Total (%)
Workers	20-29	3	1	1	8	3	0	16 (30)
	30-39	2	4	3	16	1	0	26 (49)
	40-49	3	4	0	3	0	1	11 (21)
	Total	8 (15%)	9 (17%)	4 (8%)	27 (51%)	4 (8%)	1 (2.0%)	53 (100)
Managers	20-29	0	0	0	0	0	2	2 (4)
	30-39	0	1	1	3	1	13	19 (40)
	40-49	1	0	0	6	3	12	22 (46)
	50-59	0	1	0	1	0	3	5 (10)
	Total	1 (2%)	2 (4%)	1 (2%)	10 (21%)	4 (8%)	30 (63%)	48 (100)

*Notes:* (1) less than eight years of schooling; (2) eight years of schooling; (3) from nine to ten years of schooling; (4) 11 years of schooling; (5) from 12 to 14 years of schooling; (6) bachelor's degree or beyond – 15 years or more of schooling. The levels of schooling in this and the following table start from first grade on (not including the number of years of nursery school nor kindergarten attended).

Table 7.4 shows that the workers were concentrated in a salary bracket ranging from 5.01 to seven minimum wages. Women were concentrated from 4.01 to five minimum wages (55 per cent) while the majority of men found themselves between 5.01 to seven minimum wages (52 per cent). Among the women interviewed who had already completed their high school studies, the majority (60 per cent) was receiving less than five minimum wages, while among the men of the same school level, 60 per cent were receiving more than five minimum wages.

Women are paid less, partly because at BrazilCo they are concentrated in the assembly line and in the allegedly less skilled jobs.<sup>18</sup> However, if we compare the wages of males and females who worked in the less skilled positions and had the same level of schooling women remain disadvantaged despite the policy of no discrimination adopted by the company after the acquisition. This is only one example of the wage inequality between sexes that exists in large scale in the Brazilian economy due to the fact that the legislation instituting equal pay for equal work is not actually enforced.

As noted by the BrazilCo Production Manager, shop floor workers' salaries were established through a collective agreement signed annually with the union.<sup>19</sup> Nevertheless, compared to other companies and also to the declining wage average among metalworkers in the Campinas metropolitan area, BrazilCo pays relatively higher wages. This is, in part, due to the greater length of service of the majority of its workforce, which, in the past, had seniority pay. As an indicator of the purchasing power and the standard of living of these workers and managers, it is interesting to note that 83 per cent of the workers and 90 per cent of the managers interviewed were homeowners and 70 per cent of the workers had their own cars.

However, workers at BrazilCo, at the time of the field research, did not receive individual or group performance-related pay nor did they still have seniority pay. According to the law, they have the right to a premium for participation in results. This premium amount is negotiated between the union and the company and at least part of it is related to the general achievement of goals.

Furthermore, the workers had few chances of being promoted. According to the Human Resources Manager a new plan was being discussed to redefine positions and compensations. However, it is important to emphasise that the company had a policy of in-house recruitment. Only those positions that could not be filled by people inside the company were advertised and preference was given to applicants who had already worked for the company.

The lack of a career plan was a cause of dissatisfaction mainly among the managers, but among the workers as well. Among the interviewed workers, some, having been in the company for quite a long time, affirmed that they still held the same position that they had when they entered the

**Table 7.4 BrazilCo Workers' Pay According to Level of Schooling and Gender**

	Salaries (in multiples of the minimum wage)	Incomplete Elementary Schooling	Concluded Elementary Schooling	Incomplete High School Level	Completed High School Level	Incomplete University Level	Completed University Level	Total (%)
Men	3.01 to 4	0	1	1	3	0	0	5 (12)
	4.01 to 5	4	2	0	5	1	0	12 (29)
	5.01 to 7	2	4	2	11	3	0	22 (52)
	7.01 to 10	0	1	0	1	0	0	2 (5)
	10.01 to 15	0	0	0	0	0	1	1 (2)
	Total	6 (14%)	8 (19%)	3 (7%)	20 (48%)	4 (10%)	1 (2%)	42 (100)
Women	3.01 to 4	0	1	0	1	0	0	2 (18)
	4.01 to 5	2	0	1	3	0	0	6 (55)
	5.01 to 7	1	0	0	1	0	0	2 (18)
	7.01 to 10	0	0	0	1	0	0	1 (9)
	Total	3 (27%)	1 (9%)	1 (9%)	6 (55%)	0	0	11 (100)

company's service, which is clear proof that the lack of perspectives for promotion for the production workers had not changed due to the process of restructuring undergone by the company.

Nevertheless, workers did receive some benefits in the form of indirect salaries. BrazilCo provided a restaurant, transportation, a health care plan, life insurance and time off for specialised training courses (if so required by company training programmes) to its production workers, even if the benefits provided were fewer than those granted by other companies in the sector.<sup>20</sup> In addition, many benefits were only extended to managers, such as performance related premiums or bonuses, grants for courses, expense accounts, fitness classes and a company car.

### **Workers' assessments of changes in the firm**

How do workers assess the changes in work conditions and what explains their attitudes in the face of the transformations just described? Table 7.5 displays the answers provided by workers to the following question: 'Compared to five years ago, how have things changed for you in the following respects?'

The majority of the workers felt that their satisfaction and right to make decisions had improved. Although this right is actually limited by the strong presence of the department's supervisors it is appreciated by the workers compared to the previous situation. 70 per cent of the interviewees also considered that their workloads had got better or remained the same, which seems in conflict with the fact that for 78 per cent of them their levels of stress had increased or had not changed. Nonetheless, the introduction of automated presses and new tools in the assembly line could explain why 28 per cent of the workers observed a reduction in their workload comparing with five years before. Moreover, many of those who said that their workload did not change acknowledged that the pace of work and their functions and responsibilities increased. It is also interesting to note that the right to make decisions increased along with stress, which

**Table 7.5 BrazilCo Workers' Assessment of Changes Last Five Years**

	Workers percentages (n = 53)			
	Better	Worse	Same	Don't Know
Right to make decisions	57	6	34	4
Workload	28	23	47	2
Pay	51	15	32	2
Stress	21	38	40	2
Satisfaction	49	15	34	2
Job security	34	25	38	4
Career prospects	36	23	36	6

can be explained by the association, in the workers' assessments, of that right with the heightening of their responsibilities.

In order to analyse the meaning of the answers given by the workers, we organised the interviewees into five groups, whose members had some characteristics in common, in order to better explain the meaning of their answers and their attitudes towards the changes that had been occurring in their jobs:

1. employees who were 'handicapped' by RSI (11 per cent of the sample);
2. workers that had come from rural areas (17 per cent of the sample);
3. those 'looking forward to retirement', or who felt they had very low chances of improvement in their careers (21 per cent of the sample);
4. 'workers with good chances of improvement in their careers' or who were confident of good prospects in their careers (40 per cent of the sample) and
5. 'workers who wished to change their type of professional activity, or to change to a different field of work' (11 per cent of the sample).

The first group of workers suffered from RSI, which had brought them a very high level of dissatisfaction, with regards to their working conditions as well as to their lives. Their ages varied from 26 to 43, and their salaries were concentrated between five to seven times the minimum wage. The members of this group had been working in the company for periods ranging from five to 23 years. Their complaints repeatedly registered their dissatisfaction with regards to their pace of work, the difficulties that they faced and the discrimination that they felt from their colleagues. The workers in this group were the ones who expressed the highest levels of dissatisfaction, even though they took into account that they were happy to have a job, for, due to their illness, they reckoned that their chances to reach good perspectives in their careers were very slim.

The workers in the second group (those of rural origin) declared they had begun to work early, when still children, helping parents to run farms. For the large majority of them, their jobs at BrazilCo had been their first 'formal' (contracted) job. Their ages varied from 28 to 47, the amount of time they had been working at the company ranged from five to 23 years, and their levels of schooling went from those having completed an elementary school level up to one member who had finished a university course, the largest concentration being of workers who had finished high school. Over half of these workers had taken a special course (called 'supletivo', i.e., accelerated courses for teenagers and adults to reach either elementary or high school level equivalency) while they were working at the company. The largest portion of them received salaries from five to seven minimum wages.

This group presents the highest levels of satisfaction with work conditions in the firm, their satisfaction being linked to the fact of having a

'formal' job and also being related to their improved standards of living. These people had come from rural areas to work in the company through indications they received from relatives or acquaintances, already at work in the firm. These workers were satisfied with their wages and with their career prospects in the company, due to the possibilities linked to in-house recruitment. For these employees, the chances of improving their living conditions derived from their jobs, and their acknowledgement of this fact made them grateful for the opportunity they had been given, and that explains their high levels of satisfaction.

The characteristic common to all members of the third group are that they couldn't see any career prospects and their plan for the future was 'to look forward to retirement'. Their ages varied from 35 to 45 and their salaries ranged from four to seven minimum wages, most of them having been in the company and in their positions for more than eleven years. This group consisted of some of the workers who had worked the longest period of time for the company and that had the lowest levels of schooling. Their assessment of their working conditions seemed to be associated to their own amount of initiative and their own competence (which they considered to be low).

In general terms, they held a positive view regarding their jobs, relating their jobs to their ages and to the fact that they had low levels of schooling. They associated their satisfaction to the analysis that they made of the labour market (in which they identified scarce opportunities for professional growth, both within and without the company) and also linked it to the fact that they held a guarantee to be able to make a living. Regarding the changes that had taken place in their working conditions, they considered that improvements had occurred with respect to machinery and also with respect to the prevention of accidents. Nonetheless, they pinpointed worsened conditions with respect to incentives linked to salaries and to the pressure felt regarding productivity. Rather than actually feeling satisfied, they seemed to be resigned to their work situation in the light of the unfavourable conditions perceived in the labour market.

The fourth group is a type of antithesis to the former. They (19 men and two women) believed they had good career prospects and they showed interest in investing in themselves, through improving their professional capacity. The majority of them were attending (or planned to attend) technical or university courses with the aim of moving up in their careers in or outside the company.

The members of this group were distributed in different age brackets (ranging from 25 to 42 years old) and held different levels of schooling: three were attending university courses, 14 had concluded high school and four had finished or were finishing their elementary schooling. The salary bracket, where these workers concentrated (11 of them), was that ranging from 5.01 to seven minimum wages. The length of time working for the

company varied considerably among them: one year and eight months being the shortest amount of time and 23 years being the longest.

With regard to their working conditions, some of the members of this group said that they were satisfied with their salaries or, even, just with the fact of having a job, while others complained about the scarcity of opportunities on the labour market both outside and inside the company. They also dwelled upon the ever-increasing pressures placed on them for higher degree of schooling and skills' improvement in order to keep their jobs. These workers took upon themselves a great part of the responsibility to look for improving their qualifications.

The workers encompassed in the fifth group had, as a common feature, a plan to change their line of work and envisioned the possibility of opening up their own businesses or of passing an exam for a position as a civil servant. Their ages ranged from 31 to 40 and their salaries varied from three to 10 minimum wages. Most of them had completed their high school education and only one of them had not completed the elementary school level. The amount of time that they had been working for the company varied from five to 15 years.

With regards to the changes that had occurred, they believed that they currently faced more pressure and more demands from the company and that, on the other hand, they received very little reward for any extra efforts that they had put in. The dissatisfaction of this group of workers was linked basically to the fact that their skills were not being used effectively by the company and to the lack of opportunities. A commonly heard statement was that they couldn't see any prospects for themselves at BrazilCo. This perception was leading them to seek other alternatives of work outside of the company. This dissatisfaction also led them to put more focus on the aspects that they considered negative about the changes that had occurred: higher levels of demand, an increased pace of work and pressure regarding productivity.

Analysing the comments of the interviewees, we observed that the issue of career prospects is the key factor to explain the levels of satisfaction, this perspective depending on the interviewee's perception of his/her situation within the labour market, in times of adverse conditions. For many workers, just the fact of having a job was a conquest in itself. This possibility, in turn, came up related to the issue of professional skills/training, being seen both as a chance to grow inside the company or outside it or as a barrier, for they perceived access to jobs as being conditioned by professional and training background.

Those with lower levels of schooling ended up blaming themselves for not having studied enough and were trying to increase their levels of schooling, either through accelerated 'fast track' courses or in regular school programmes. They felt insecure but they felt that whatever job security there might be was directly linked to their performance in their jobs

and to their qualifications. 'Job security, you're the one that can guarantee it.'

All groups thought that the pace of work had increased quite a lot over the last five years. They attributed the quicker pace to an increase in the amount of responsibilities and in the amount of functions that the workers had to carry out, which, according to their testimonies, had contributed towards raising levels of stress. The increased responsibility was viewed both as a complaint as well as an opportunity to learn more (to become more multi-functional), linked to a chance to increase one's opportunities in the labour market.

### **The Metalworkers Union**

The workers at BrazilCo are represented by the Metalworkers Union of Campinas. This is the largest and most important trade union in the region.<sup>21</sup> It is an industrial union, which currently represents 45,000 unionised and non-unionised workers in collective bargaining and it covers around 1,500 companies from different sectors in the metal branch<sup>22</sup> in an area that includes nine municipalities in Greater Campinas. This union has 20,358 paid members.<sup>23</sup>

Since 1984, this trade union has been largely staffed by activists linked to the Young Catholic Workers Organisation (*Juventude Operária Católica*) and to the Catholic Pastorate for Workers (Possan 1997). The majority of the executive members were affiliated to the Socialist Forum (*Forum Socialista*), a left wing sector within The Confederation of Labour Unions (CUT).<sup>24</sup> This political orientation led the Metalworkers Union to adopt, in the 1990s, a critical position with respect to the moderate majority within CUT.

During the 1980s, the union movement in Brazil grew and became stronger, in contrast to the crisis in union membership being witnessed in Europe and in the United States. During the process of political redemocratisation, pressed by the intensification of strike movements, the function and role of the unions were altered with the progressive liberalisation of State control over their activities and with the replacement of 'complacent officials' by more active leadership. However, this did not alter the trade union's corporatist structure, which was established by the State in the 1930s. This structure's main characteristics, still in use, are: the necessity of union's recognition by the Ministry of Labour, the representation monopoly of all the workers of one industrial sector within a specific territorial remit, and compulsory union tax paid by all workers whether unionised or not. The legislation conferred some privileges upon union officials such as job security for the length of their term but did not recognise the right of union representation in the workplace. During the military dictatorship, established in 1964, state control over the unions was increased through the rigid use of the law's coercive

mechanisms, such as state intervention in the unions, replacement of elected officials and union closures. These measures were complemented by discretionary decrees and the repression against leftist and also independent union leaders.

Although keeping the same old structure but acquiring more autonomy, Brazilian trade unionism experienced a significant expansion and internal diversification in the 1980s. Strikes and the practice of collective bargaining were the main instruments of reconstructing the labour movement and of redefining labour relations in the country. The right to strike, the unionisation of public servants, the recognition of national confederations and the elimination of the mechanisms of state control were guaranteed by the Constitution of 1988. Nevertheless the main characteristics of the unions' corporatist<sup>25</sup> structure were retained.

The political, economic and social changes of the 1990s contributed to the weakening of the Brazilian union movement, breaking down its unity and disturbing the articulated processes of collective bargaining, which had been built up during the 1980s. The changes experienced by the union movement were visible in the decreasing number of strikes and in the difficulty of mobilising workers. Weakened by growing unemployment, falling membership and by sharpened political divisions among them, many metalworkers unions adopted a defensive posture and were not able to react in an articulated way against this scenario. This meant that in the 1990s the metalworkers unions fought to maintain what they had already obtained in the past decade and they had to make concessions to company representatives, negotiating flexible working hours, the profit-sharing programs<sup>26</sup> and the programmes of voluntary dismissals, among other issues, to avoid large scale layoffs and prevent factories from closing their doors. After 1998 these unions faced their worst collective bargaining positions and were unable to avoid the loss of many important advantages.

However, in spite of the predominance of neoliberal ideas and policies and of the weakening of the union movement, there were neither substantive changes in the unions' structure, which kept its corporatist characteristics, nor in the mechanisms for solving collective conflicts. Even in the face of collective bargaining fragmentation and with the predominance of firm or sector negotiations depending on the strength and ability of the union, annual collective bargaining in an industry basis continued to occur in the 1990s.

Despite unfavourable conditions for the labour movement, the Campinas Metalworkers Union maintained a more resolutely combative stance than many other Brazilian metalworkers unions, especially in view of the level of unemployment occurring within the metal sector. The political affiliation of its executive led this Union to adopt, in the last decade, a critical position with respect to the moderate majority within CUT. It sought to provide a base of support for metalworkers in the region as a whole and

this may have been vindicated by the fact that they did manage to maintain a fairly stable unionisation rate (41–43 per cent) during a period when employment in the sector fell quite significantly (37 per cent between 1989 and 2002).

In recent years, there was a fall in the level of unionisation, dropping from 46 per cent in 1995 (23,000 members) to 36 per cent in 1998 (14,230 members). This drop derived from the reduction in the number of workers, from outsourcing and also from the company's involvement/participation policies. Nonetheless, there has been a turn-round in this trend, which started in 2000, with a relatively significant growth in the number of union members, which reached 20,358 in 2002 (45 per cent).<sup>27</sup>

The political stance and direction adopted by the executive have had important repercussions in the way the union has approached the consequences of the restructuring process. According to union officials, the union's priority has been to criticise the ideology involved in restructuring and its more perverse effects on workers. They have therefore resisted processes such as downsizing, outsourcing, flexibility and factory closures – in an effort to defend workers against flexibilisation and the reduction of their rights.

With regards to outsourcing, as the union could not stop it from happening, it has directed its actions towards fighting for the workers employed in subcontracted companies to have the right to be represented by the same union as the contractor's employees. As this target was not reached, the union has taken up the position that those workers should have the right to the benefits that have been obtained through the collective bargaining of the metalworkers.

The Metalworkers Union has taken a firm stand against neoliberal policies adopted by different governments in the 1990s, which favoured the deregulation of the labour market. Until the middle of the decade, the resistance of the labour movement and the opposition of the left wing parties – mainly the Workers' Party (PT) in Parliament prevented a reduction of labour rights. Although there was strong pressure from employers' associations and from right wing political parties for the flexibilisation of labour legislation it was only under the government of Fernando Henrique Cardoso (1995/2002) that it began to become more flexible. Employment contracts and the eight hours working day were the first to be altered with the approval of a law allowing fixed term contracts of between six and of 18 months along with the alteration of the length of the working week through the establishment of annualised hours.<sup>28</sup> In both cases the new conditions could only be implemented if they were agreed upon by the unions.

The Campinas Metalworkers Union has strongly refused to sign agreements that included dispositions that dwell on these two issues. This steadfast position has brought positive results for the metalworkers for, up until

the present moment, no agreements establishing flexible working hours have been approved nor temporary contracts in companies anywhere in the region where the union is present, despite the huge amount of pressure coming from the company owners and their representative associations. This shows that the union has been able to stand its ground and to impose some restrictions to the flexibilisation of working conditions, minimising, in this manner, some of the perverse effects that the new management methods can have on the workers.

With respect to programmes involving workers' participation, this union has fought the participation of workers in suggestion schemes and also the linking of profit share to productivity and quality targets established by the companies. The reason is that union officials believe that to accept such conditions would jeopardise the workers' position, making them subject to the company's objectives and to its management.

Following a national trend, a significant number of negotiations by the Metalworkers Union in Campinas now occur at company level, although this organisation tends to favour collective bargaining on an industrial basis (Araújo, Cartoni and Justo 2001). However, the majority of issues negotiated are still related to wages and working conditions. Another group of issues has to do with the consequences of restructuring, including the issue of job retention that appears most frequently (e.g. temporary job security, suspension of layoffs, reintegration and guarantees to laid off workers). The issue of indemnifying workers with RSI was negotiated only in 1997 and even then in only four companies in the region.

The workers at BrazilCo have a high level of unionisation (59 per cent) when compared to the level at other large companies (e.g. in auto parts producers, like Eaton, Bosch or Wabco, the union membership varies from 36 to 44 per cent, according to information provided by the trade union) and also if compared to the average rate of unionisation in the whole metal sector of the Campinas region (roughly 45 per cent). This fact can be explained by the high level of activities that the union has carried out in the company since the 1980s. Union density did not change significantly after the process of acquisition of the company by the NAMN and the adoption of a new management culture.

This high rate of unionisation at the company suggests that the union is active, visible and well represented in the factory, a fact which is well recognised by the managers interviewed. One of the union officials<sup>29</sup> works at BrazilCo, and the union can also count on the support of worker's representatives within the Internal Health and Safety Committee (CIPA) which is a bipartite body, established by law, including representatives of both management and workers whose jobs are guaranteed for the duration of their term.

According to the Human Resources and Production Managers, up to the moment of the company's acquisition, relations with the union had been

laden with conflicts as the company refused to start up dialogues or negotiations with union representatives. They believe this has changed since the company is aligned with the requirements of the NAMN, has been attempting to improve relations between directors, managers and factory workers, and to achieve a better dialogue with the union.

Interviews with union officials between 1998–2003 have confirmed the turbulent history of the union at the firm; but they have also confirmed that, in the last few years, communication and relationships with managers have improved. However, union officials still thought at the time of the interviews that BrazilCo was one of the most difficult companies in the region with which to negotiate. In any case, nowadays, the company seems to be maintaining a channel open for communicating with the union, although questions concerning conditions for profit-sharing, flexibility of working hours and outsourcing are subjects guaranteed to lead to strong conflicts. In these cases, the firm has tried to avoid situations of confrontation, often by avoiding negotiations. When the firm adopted flexible hours for administrative staff, negotiations were informal and established directly with the employees. The effects of outsourcing were also partially hidden by spreading employment losses across various parts of the firm.

Despite the apparent apathy of the workers and the strategies of involvement and co-optation adopted by the company, latent conflicts finally emerged when a strike broke out in 2002, motivated by disputes around the amount to be paid in the profit sharing programme. This strike, which lasted four days, resulted in the dismissal of 51 workers, among them the union leader. Almost all of them had obtained job security due to work related diseases or because they were members of the CIPA. The company had to go back on these dismissals soon afterwards due to a judicial decision. However, claiming many different reasons, once again it dismissed the union leader in August, 2003.

The serious condition of the workers health, due to the high incidence of RSI/OWRD led the union to dedicate a key part of its work at the company to this issue demanding the adoption of preventive measures and defending the rights of those workers suffering from these illnesses. These actions brought important gains for the workers such as the re-hiring of those who had been dismissed after getting RSI or after suffering an accident and the payment of compensation relative to the wages they had failed to receive during the period they had been out of the company. However, for both the company's management and the union leaders, the issue, which brings the greatest friction in negotiations, is that of job security for workers suffering from RSI/OWRD up until their retirement. This is because BrazilCo, as well as the rest of the entrepreneurial group in the metal sector, has been trying, constantly, during the last few years, to eliminate this right in all collective agreements being discussed.

The Metalworkers Union of Campinas has given priority to minimise the negative impacts of production changes on workers and it has taken great steps in this direction. Nevertheless, it is striking that the intensive transformation occurring inside companies has not been reflected in collective bargaining. Throughout the decade not a single clause relating to the new issues raised by restructuring was incorporated into the agreements.

The lack of negotiations regarding the restructuring of the company may stem from the absence of union organisation in the workplace that in turn has made it difficult for its representatives to obtain information regarding management strategies and innovations during their phases of implementation. Hence, the absence of shop stewards is a major obstacle to the capacity of the union to influence the changes introduced by the companies that directly affect the members it represents. The strategy adopted by the Campinas' Metalworkers Union to make up for the non-existence of representatives in the workplace was significant, namely to have one union official working at the company and to count on the CIPA's elected members as the union's spokespersons in the shop floor. However this strategy did not seem to have a very wide-reaching impact for establishing closer ties between the union and the workers as well as for increasing the contact of the union with the shop floor's reality. Besides, the difficulties encountered by the union in increasing its influence are related, in great measure, to the fear of unemployment that predominated among workers.

Despite all the difficulties that it has been facing, the union received a positive evaluation from most of the workers interviewed. As all the interviewees were shop floor workers, the level of unionisation among them (67 per cent) is much higher than that of the whole group of BrazilCo's employees. There is also a striking difference in the number of unionised workers among those who have worked at the company for more than seven years (81 per cent) and for those who were hired after its acquisition by the NAMN (48 per cent). This data show that the union has had more difficulties trying to recruit people who were hired more recently.

The trade union was positively evaluated by the majority of the workers interviewed, both men and women, with men more likely to be positive, and also by those who were not union members. How people judged the union varied according to the worker's age and length of service in the company.

The view of the union was much more negative among the workers aged 31 to 35, (73 per cent) than among those of other age brackets, in which a striking majority (70 per cent) had evaluated the union's performance positively. Besides, data from the questionnaires suggest that older workers (over 35 years old), who had been working at the company for more than seven years and in the more labour intensive jobs, such as in the assembly lines and in the metal stamping, tended to have a more positive view of the union. One might suggest that this could be in part due to

these workers having witnessed the battles taken up by the union in the 1980s and the beginning of the 1990s, when many benefits for the workers were won.

Having analysed the comments made by the workers to explain their views on the union, it could be seen that some of them had reservations towards aspects of the union's practices. Among the interviewees who gave a positive evaluation of the union almost 30 per cent had some type of criticism to make. Another group (39 per cent) expressed their criticism and stressed negative aspects more emphatically. The positive view of the union was attributed, in many cases, to the role the union had been playing in defending the interests of the workers and, particularly, of those suffering from work-related diseases. Among those who criticised the union, some (15 per cent) questioned the background of the union leaders and their lack of qualification for exercising their functions on the shop floor. Others (10 per cent) stressed the distance that existed between shop floor workers and union leaders and the fact that the workers' voices were not being heard by them. This perception of distance also appeared in the criticism made by around 30 per cent of the sample regarding the lack of adequate communication between the union and the workers. It is noteworthy that this was the complaint that most frequently appeared among all criticisms made.

Although important critical views existed regarding the union's actions, workers at BrazilCo clearly recognised the need and the importance of the union as an instrument to defend their rights. None of the workers interviewed affirmed or suggested that the union had lost its role in these new times of flexibilisation and labour market deregulation.

## **Conclusions**

The white goods industry was introduced in Brazil at the end of the 1940s as part of the import substitution policy. Until the 1980s this industry was characterised by a falling number of large national family owned companies. The entry of foreign multinational corporations in the 1990s, which followed the opening of the economy and the policy of establishing a common free market between the southern countries of Latin America (Mercosul), reshaped the industry's structure and ownership, as a result of the acquisition of leading national companies.

The entry of leading world groups is explained by their intention of taking advantage of the size and potential of internal and regional markets, as well as by the existence in the country of a previously structured and complete productive chain and by its strong international presence. It is worth noting that, while the largest part of the main companies' production is aimed at the internal market, exports grow steadily and the sector's trade balance after the acquisitions presents positive results.

Since the 1980s, BrazilCo initiated a process of modernisation that was intensified after its acquisition by the NAMN. This process included investments in new technology and changes in the company's organisational structure and work process through the introduction of new management methods. These changes, driven by competition and cost reduction are very similar to the ones that are observed in other white goods multinational companies in Brazil.

They have meant both reductions in the labour force and a requirement by management that workers should have a higher level of education. They have led to new tasks for shop floor workers, an intensification of labour, increased productivity and an increase in RSI.

The frequency of RSI (around 10 per cent of the labour force) in this company is explained by the association of the increase in the pace of work to the use of assembly lines with fixed positions and very repetitive tasks. The size of the problem has led to the introduction of prevention measures, to the reorganisation of labour process and to the automation of some lines. One should keep in mind that these changes occur in a context of increasing unemployment and wage reduction in the labour market as a whole.

In this context, it is interesting to note workers' views on the changes in their work conditions. The majority of workers declared themselves more satisfied or as satisfied as five years before. The key factors for the satisfaction level are the improvement of the take home pay, which was considered better for almost 50 per cent of the workers, and also the idea they have of their career prospects, either within or without the firm, which derives from the analysis they make of the labour market (increasing unemployment and growing barriers to entry and permanence, through professional training and demand for more schooling). Job security is seen as having disappeared and as depending on individual effort (both as hope and as guilt), and staying employed is seen as a triumph in itself.

On the other hand, there were not important changes in the labour contract and in industrial relations. There is still annual collective bargaining on an industry basis and agreements at the company level too. Moreover, the Brazilian labour law did not change that much. This was because, in the general context of the country's democratisation and of the growth of social movements from the 1980s on, the workers' movement was able to set limits to changes in labour laws and to prevent a still higher flexibilisation in labour contracts. Thus, a new law allowing the establishment of temporary contracts and flexible hours – but only through agreement with the unions – was passed only recently.

This is an important feature of the Brazilian case, mainly because the union movement, most specifically in the metal sector, although it was weakened in the 1990s, is still strong and active, having political influence both at the national and regional levels. For this reason it plays an important role in

setting limits to outsourcing and to the flexibilisation of the working hours as well as in keeping labour rights and guaranteeing jobs and benefits for those workers suffering from occupational diseases.

Besides, in this case study, the political orientation and legitimacy of the Campinas Metalworkers Union and its strategies in relation to this specific cooker plant can explain why the latter was not able to avoid negotiation with the union, neither to increase the use of casual or agency labour, nor to establish flexible hours and to eliminate job security for workers with RSI/OWRD. Thus, workers acknowledge the role played by the union, on the one hand, but on the other, show a high level of job satisfaction. The contradiction is only apparent if one keeps in mind the context characterised by growing unemployment, informalisation of the labour market and generalised wage reduction.

In this sense, one can say, from the Brazilian case, that in a globalisation context, with the industry's internationalisation, national politics counts both for the development of the sector and for the kind of consequences management strategies have on employment relations. Economic and industrial policies were important for the way this sector was reshaped by capital concentration and internationalisation and by technological and organisational innovations. On the other hand, the democratisation process and the political importance of union action have a substantial influence on labour conditions and relations.

## Notes

- 1 The interviews were carried out within the factory, in a room where the researchers could stay alone with the interviewees. Nevertheless, the supervisors of each area chose the workers that would be interviewed. To avoid workers' resistance and fear that this could be a company sponsored study, we assured them of the confidentiality of all the information we were collecting. We are aware that, although this option can minimise distortions in the workers' answers due to the conditions of the interviews, it cannot eliminate them completely.
- 2 Embraco has been presenting a remarkable export performance during the last decades. The firm's exports accounted for around 70 per cent of its revenues in 1999 (Cunha 2003).
- 3 This estimate was reached through data supplied by The Brazilian Electrical and Electronics Industry Association (ABINEE).
- 4 Source: Data base RAIS (Social Information Yearly Report)/Ministry of Labour and Employment (MTE), Brazil.
- 5 Source: National Association of Manufacturers of Electronic Appliances (ELETROS).
- 6 It is worth noting the importance of the tax incentive policies taken up by some state governments to lure certain companies of the white goods sector to set up installations in their states, as well as policies for financing investments for production plants to make their facilities more modern and/or to expand them, policies implemented by government agencies, such as The Brazilian Bank for Economic and Social Development (BNDES).
- 7 Source: ABINEE and RAIS.

- 8 Source: National Sample Survey (PNAD) / Brazilian Statistics Bureau (IBGE), 2001.
- 9 Source: ABINEE and Brazilian Foreign Commerce Secretary (SECEX).
- 10 It is worth noting the importance of exports for the main component of refrigeration – hermetic compressors. In 1999, the top two Brazilian producers of hermetic compressors – Embraco and Tecumseh do Brasil – together exported US\$430.2 million, holding respectively the 29th and 60th ranking in the list of main Brazilian exporting companies in that same year (SECEX).
- 11 Source: *Gazeta Mercantil* (2000) – one of the leading Brazilian business newspapers.
- 12 Considering total sales of the cooker manufacturers, which are ELETROS' members.
- 13 The firm does not intend to seek the ISO 14000 certificate, because it was in a process of certification in the same international environmental, health and security certificate held by the NAMN parent body, which seems to be more comprehensive.
- 14 Also due to influence exerted by NAMN, a system was introduced regarding the development of new products, the New Product Introduction (NPI). It is a method used to introduce new products to the market. 'It spans the entire product life-cycle from initial identification of market/technology opportunity, conception, design and development through to production, market launch, support, enhancement and retirement' (GDP Program 2003: 1).
- 15 Just-in-time (JIT) is a management system created in the Japanese car industry to adjust input demands and production, reducing stocks, and costs of production. It can be used within the firm (internal just-in-time) or between client firms and suppliers (external just-in-time).
- 16 A widespread trend identified in the reorganisation of the relationships between client firms and suppliers is the tremendous pressure from client firms to formalise product quality from suppliers. This marks a clear-cut trend reflecting rising demands to introduce documentation and procedures related to production quality, parallel to rising pressures to trim costs. These demands are reflected in regular assessments and audits by the client firm companies and, to an increasing extent, pressures to obtain ISO 9000 certification (Gitahy 2000).
- 17 It is worth mentioning that this is a BrazilCo's traditional practice, which was not modified after its acquisition.
- 18 Of the 11 women interviewed only one worked in the department of logistics while the male workers interviewed were distributed in the following departments: Logistics: 3; Maintenance and Tool making: 3; Assembly line: 13; Painting and enamelling: 13; Stamping and general production: 10.
- 19 The minimum salary for metalworkers in the state of São Paulo varied throughout the 1990s – from 2.5 minimum wages/per month (for small and medium-sized companies) to three minimum wages in large firms. However, with the devaluation of the Real (the Brazilian currency), a drop in minimum wage levels was witnessed. The Brazilian minimum wage had been worth US\$100.00 in 1995 and was worth around US\$60.00 in December 2002.
- 20 Even companies in the region, which were smaller in size, offered benefits such as dental care, a nursery and financial aid (through loans and advances).
- 21 This union went through a significant process of renewal and strengthening, which began in 1984, when the opposition, which had been active in the union since the late 1970s, won the elections.
- 22 The metal-mechanical branch, as defined by the Ministry of Labour, includes companies with operations in the following sectors: metalworking, car manufacturing

- (assembly and auto parts plants), machine and electrical-electronic manufacturing, electrical equipment, foundry and non-iron metal sector.
- 23 According to an interview with one of the union's officials on March 26th 2002.
  - 24 There was also a minority of union officials affiliated to other small leftist groups represented within this Confederation. CUT is the largest Brazilian labour confederation.
  - 25 According to the literature the Brazilian union structure is corporatist. We use the definition of corporatism given by Phillippe Schmitter (1974) and Alfred Stepan (1980). Many Brazilian authors (Erickson 1979; Araújo 1998 and 1998a; Rodrigues 1990; Boito Jr 1991, for example) consider the monopoly of representation along with the union tax as the main characteristics of the Brazilian union structure. The monopoly of representation means that when a union is recognised by the Ministry of Labour as representing, for example the metal workers of Campinas, the workers don't have the option to choose another union. All metal workers in this city, unionised or not, are represented only by this union – whether they like it or not – in collective bargaining with companies, in relations with the state and in the labour courts.
  - 26 The Constitution of 1988 established the right of workers' participation in enterprises' profit. Since then the unions included in collective bargaining the demand for the establishment of profit-sharing programmes. These programmes were widely adopted by companies during the 90s. Usually they mean an annual bonus for the workers which is related to the company's productivity and output. The amount of the bonus in general is determined by meeting productivity and quality goals. CUT unions oppose to the establishment of these goals as a condition for the amount of the PS bonus to be granted to the workers.
  - 27 This relative stability in the number of union members, despite the unfavourable conditions, may be due, in part, to the fact that this union has been developing systematic campaigns to promote unionisation at factory doors and inside the companies. Union representatives, in compliance with the Brazilian legislation, have the right to enter the factories to carry out recruitment. According to Brazilian legislation, all of the employees in a company can become members of the union that represents their workers, be they production (blue collar) workers or administrative staff (white collar workers). The union has been able to recruit a greater number of members among shop floor workers. Nevertheless, the agreements established with the companies are also valid for the administrative staff. In general, professionals with higher levels of schooling – such as engineers, economists, physicians – have their own unions. Different unions also represent the workers of subcontracted companies that render services such as cleaning, security, catering and information technology services, among others.
  - 28 The compensation scheme eliminated the payment of extra hours but could not surpass the average of 44 hours per week. For a detailed analysis of recent changes in the Brazilian labour legislation see Galvão (2003).
  - 29 The company pays the salaries of the union leaders that remain working in it. Others, who get leave from their jobs, are paid by the union and cannot be fired until one year has expired from the date of the end of their term (which is in general of three years).

## References

- ABINEE (Brazilian Electrical and Electronics Industry Association), cited 2002 ([www.abinee.org.br](http://www.abinee.org.br)).

- Araújo, A. M. C. (1998) *A Construção do Consentimento: Corporativismo e Trabalhadores nos anos 30*, São Paulo: Scritta.
- Araújo, A. M. C. (1998a) 'Building Consensus: the implementation of corporatist unionism in Brazil during the thirties'. Working Paper 21, Manchester: International Centre for Labour Studies, Manchester, pp. 1–35.
- Araújo, A. M. C. and Gitahy, L. (2003) 'Reestruturação produtiva e negociações coletivas entre os metalúrgicos paulistas' *Idéias*, Ano 9 (2)/10 (1): 65–111.
- Araújo, A., Cartoni, D. M. and Justo, C. (2001) 'Reestruturação produtiva e negociação coletiva nos anos 90', *Revista Brasileira de Ciências Sociais*, vol. 16, no. 45, February.
- Araújo, A., Cunha, A., Rachid, A. and Gitahy, L. (2002) 'New management strategies and labour: a case study in the Brazilian white goods industry'. Paper presented at The International Congress on Sociology (ISA), Brisbane, Australia.
- Boito Jr., A. (1991) *O Sindicalismo de Estado no Brasil*. São Paulo: Editora da Unicamp/Hucitec.
- Camarano, A. A. and Beltrão, K. I. (2000) 'Distribuição Espacial da População Brasileira: mudanças na segunda metade deste século' in *Texto para Discussão*, nr 766, IPEA, Brasília.
- Cunha, A. (2003) *As Novas Cores da Linha Branca: os efeitos da desnacionalização da indústria brasileira de eletrodomésticos nos anos 1990*. PhD Thesis, Institute of Economics, UNICAMP, Campinas.
- ELETROS (National Association of Manufacturers of Electronic Appliances), cited 2002 ([www.eletros.org.br](http://www.eletros.org.br)).
- Erickson, K. P. (1979) *Sindicalismo no Processo Político no Brasil*, São Paulo: Brasiliense.
- Galvão, A. (2003) *Neoliberalismo e reforma trabalhista no Brasil*, PhD Thesis, Institute of Philosophy and Human Sciences (IFCH), UNICAMP, Campinas.
- Gazeta Mercantil, *Balço Anual 2000*, São Paulo.
- GDP (Good Design Practice) Program *New product introduction (NPI)*. University of Cambridge and Royal College of Art (site [www.betterproductdesign.net/npi/](http://www.betterproductdesign.net/npi/) visited in August, 2003).
- Gitahy, L. (2000) 'A New Paradigm of Industrial Organization. The Diffusion of Technological and Managerial Innovations in the Brazilian Industry', *Comprehensive Summaries of Uppsala Dissertations from the Faculty of Social Sciences* 93, Acta Universitatis Upsaliensis, Uppsala.
- Gitahy, L. and Cunha, A. (1999) 'Redes y flexibilidad: reestructuración productiva y trabajo en la industria de línea blanca' in Montero, C., Albuquerque, M. and Ensignia, J. (eds) *Trabajo y Empresa entre dos siglos* (ed.) Nueva Sociedad, Caracas, pp. 79–103.
- IBGE (Brazilian Statistics Bureau) – PNAD (National Sample Survey), 2001.
- Possan, M. (1997) *A Malha Entrecruzada das Ações: As Experiências de Organização dos Trabalhadores Metalúrgicos de Campinas (1978–1984)*, Campinas: Área de Publicações CMU/UNICAMP (Coleção Campiniana, 14).
- RAIS/MTE (Social Information Yearly Report/Ministry of Labour and Employment) Database, Brazil.
- Rodrigues, L. M. (1990) 'O sindicalismo corporativo no Brasil', in *Partidos e Sindicatos*, São Paulo: Atica.
- Schmitter, P. (1974) 'Still the Century of Corporatism?' in Schmitter, P. & Lehmbruch, *Trends toward Corporatist Intermediation*, Beverly Hill: Sage.
- SECEX/MDIC (Brazilian Foreign Commerce Secretary – Ministry of Development, Industry and Commerce) Database, 1990/2000.
- Stepan, A. (1980) *Estado Corporativismo e Autoritarismo*, Rio de Janeiro: Paz e Terra.