Grow Without Profit – A Business Strategy Applied in the Brazilian Automation Market

Carlos Eduardo R.B. Barateiro, Jose Rodrigues de Farias Filho, Ricardo Bordeaux, Luiz Antonio da Paz Campagnac

Production Engineering of Fluminense Federal University Campus of Niteroi, 24210-240, Rio de Janeiro, Brazil

Email: cerbb@terra.com.br, fariasfilho@gmail.com, ribordeaux@hotmail.com , luiz.campagnac@gmail.com

Abstract

The performance of companies within a competitive market is supported by several corporate strategies that need to be aligned with the strategies of its operations. This alignment is crucial in order to create the necessary basic conditions for the ultimate goals to be achieved and in the capitalist system: the profit is the main objective to be achieved. This article discusses how the development of operational strategy, focused on after-sale services, that together with a corporate strategy of growing installed base, may be a decisive factor to achieve the main goal which is the profit, supported by the principles of corporate governance. For illustration of this strategy we have considered the analysis of a case study - the performance of a large conglomerate that operates in the automation market for industrial process control. Particularly we have analyzed the performance of this group in the Brazilian market, which is highly competitive in this area, and use of this strategy is allowing the change of expectations in terms of the profitability.

Keywords: Industrial Engineering, Operations Research, Business strategy

1 Introduction

Despite the great economic crisis that erupted in 2008 and even with the potential resurgence of the same problems in 2011/2012, the oil and natural gas market has shown a strong growth mainly due to increased energy demand. Specifically in Brazilian case, the aggressive investment plan of Petrobras (2011), the main oil company with operations in the country, with a total of USD 224.7 billion for the period 2011-2015, has kept the market supplier of equipment and services warmed. The main reason for it is the amount of direct investments that are being provided in the domestic market (USD 213.5 billion) with a total of 688 projects, which 57% refers to projects already authorized for execution and implementation.

As mentioned in Barateiro study (2010), the automation designed to the industrial process control has a significant importance in these projects and it obviously attracts a lot of potential companies that try to obtain significant portions of this market. The automation system investments for the oil and gas market has a expected growing of 6.7% only in the production area (upstream) (ARC, 2009) and 5% on the refining part (downstream)(ARC, 2009), which is quite significant. This growth is still small when compared with estimates of service purchase inherent in these systems – the expected growing in 2015 for services in Latin America is about 11.2% (ARC, 2007).

The great question that companies are now facing is how to define the corporate and operational strategies to win this market and be profitable. The article will address one of these strategies based on significant short-term growth to increase the installed base, even sacrificing profit rates or even operating with loss, considering that in the long-term there would be considerable gains.

For the paper development we have considered the analysis of a case study: the performance of a large conglomerate that operates in the automation Brazilian market. The use of this strategy is enabling a major shift in the expectations in terms of profitability. The article then develops a theoretical formulation of the main concepts: theory of firms, corporate and operation strategies and the corporate governance.

The analyses were performed with five companies of the group of which three are operating based on the strategy – it is allowing a proper comparison of the advantages in using this formulation.

2 Theory, strategies and governance

The knowledge framework of this paper is based on four areas: a) the theory of firms, b) business strategies, c) operation strategies and d) corporate governance.

2.1 The Theory of Firms

With the production model designed by Ford for the automotive industry, the studies on the industrial economy and more specifically on the theory of formation and operation of businesses, called the theory of firms, began. Dantas (2002) mentions that at this stage the firm was seen as an agent that made decisions for production and plant size. It was driven by logic to maximize the profitability in the context of technical options. As discussed by Tigre (1998), the early stage companies had a limited role with a concept based on simple premises: a) the firm was an organization that used the production factors available in the market to produce marketable products; b) the market tended to establish conditions of perfect competition and firms also tended to a size "optimal" balance; c) the technological possibilities would be represented by the production function, which specifies the production corresponding to each possible combination of factors; and d) it had the perfect rationality of the economical agents considering the firm's goals of maximizing profits.

Santos (2007) mentions that in this simplicity context the firm's only function is to transform inputs into outputs, selecting the most appropriate technique and getting the necessary supplies on the market, including labor and technology. Thus profit is considered a product resulting of the sales value, after paying the various production factors. The sale price, as well as the rate of return on labor and capital, are determined by the market and are therefore outside the firm control.

With the industrial development of the early XX century, the increasing complexity of trade relations no longer explained the behavior of these firms within the economic environment. Thus, Coase (1937) introduced new questions about the nature of the firm, considering it a particular way of economic organization and an institutional alternative to the market. Coase (1937) criticized the lack of realism and especially that the studies did not consider the opportunistic behavior of agents. Tigre (1998)] mentions that this discussion about the goals of the firm won so different interpretations:

- The maximization of total sales: model introduced by Baumol (1959) that identified a trade-off between sales and profits - the premise of this model was that sales growth must sacrifice the profits level, regardless of what it would be necessary to establish a minimum level of profit to cover the costs of investments and do not create impact in the external financial agents and the shareholders of the firm;
- The maximization of the sales growth rate: model introduced by Marris (1967), which assumed that growth should be the general objective of the company, linking directly with the process of expanding its operations - however this growth would be constrained by the level of expansion demand and supply, both conditioned by the organization's efforts to increase those sales and the amount of resources available to finance this expansion;
- The maximization of profits in the long term: a concept introduced by Sylus-Labini (1964) which recommended that in certain markets, firms seek to maintain a price level that would prevent the entry of new competitors in order to be able to maximize their profits long-term - that price is only at a level above the average cost of long-term because the companies have established a number of advantages with respect to potential entrants, in particular, they can use economies of scale as a way to stop the entry of new competitors;
- Survival: Robinson (1933) formulated his theory of imperfect competition to realize the unreality of the situation of perfect competition, where no individual producer would have been able to affect prices - the empirical evidence of large firms enjoying economies of scale led it to state that

each firm had a monopoly for its products (survival), which was a result of consumer preference, despite the existence of close substitutes produced by other firms;

- The power of the technical structure: Galbraith (1967) stated that technical knowledge was replacing capital as a production strategic factor, referring to the object of ownership of capital, not the capital itself, and that there is a change in the concept of how this capital influences the organization in its ability to generate profits or positive cash flows.

All these discussions led to the recognition that corporate goals can vary depending on the goals of their controllers, without being able to charge a universal rule. This statement is very much aligned with the concept developed by Cyert and March (1963) who created the term "aspiration level" that defines that the companies targets are determined by a combination of growth, market shared, production and inventory.

The new theories of the firm represent an extension of these ideals and it was developed between the years 60 and 70 mainly to fill the gaps left by the previous analysis and to look for a better understanding of the firm's behavior within the new industrial revolution based on advances in technology and management information. Santos (2007) mentions the following items to characterize these new concepts:

- The institutional vision: concept developed by Aoki (1984) which gives the companies the nature of their different economic performances, according to the paths traveled by them – in this concept, Aoki argues that no institutional arrangement can be defined as "optimal" because they are the result of cultural and learning contingencies typical of each country and thus, it is the institutional environment that determines the opportunities for profit making;
- The existence of agreements between agents: developed by Alchian and Demsetz (1973) who conceptualized the firm as an integrated set of contracts that specify the "property rights" among the agents who participate in it - as an example we have the idea that managers must be committed to defend the interests of the shareholders;
- Self-interest: developed by Fama [(1996) and in fact one aspect about the existence of contracts, whereas its efficiency is directly linked to the agency relationship, which is the delegation of authority given to the hired (the agent) by the contractor - when the behavior of this agent is guided by the pursuit of its own interest, the contractor may find it difficult to induce the agent to behave in order to maximize the gain forcing him to implement the necessary monitoring, for example, with the using of directors´ board;
- Transaction costs: it is a concept developed by Williamson (1985) presented the view that the company is seen as a nexus of contracts that seeks greater efficiency in resource allocation, focusing on its formulation by the transaction costs, i.e. costs of using of the market;
- Vision based on the accumulation of resources: a concept developed by Penrose (1959) and Teece (1988) who showed that the company should be seen as an institution that grows accumulating resources and experience, or skills. Profits, security and market share are the result of this process to become a competitive differential advantage;
- Evolutionists: concept developed by Nelson and Winter (1990) and Pavitt (1984) that showed that the evolution of the firm depends on the ongoing transformation of their skills as new technological opportunities that appear - that is, the history of the firm determines its capabilities to learn and absorb new skills, combining technical progress with the introduction of new organizational features.

All these concepts and theories seek to understand the economic reality experienced by companies. Tigre (1998) mentions:

"This gap between theory and practice is due to the difficulties of capturing historical and the limitations of the theories to the available evidence, the complexity and diversity of businesses within capitalism. The various theories of the firm are trying to identify paradoxes and seek new concepts, aided by the incorporation of interdisciplinary scientific contributions. By pointing out inconsistencies, critics rarely consider the historical context and which were based on empirical theorists who preceded them. The

different theories and principles seem to hover over an indefinite empirical context, suggesting a timelessness and universality that sooner or later proves unrealistic. Although empirical examples and references, it is not easy to understand how the authors understand the constant changes in the ways of organizing production dominant and how such changes have been incorporated in order to overcome the limitations of existing".

The purposes by which companies are directed, therefore, are the most diverse including sales, profits, market share, innovation, skills, etc.. Santos (2007) mentions that "although there is much controversy about it, the various approaches to the theory of the firm agree that the admission of maximizing short term profits is a precept excessively reductionist. The complex organization of modern large enterprise where the ownership and management control are exercised by different persons, the company performance tends to be guided by a set of goals often contradict each other, but to collaborating with an effective operation of the business". This question mentioned by Santos [8] is one of the goals of this article: to analyze the relationship between profit growth and operation strategies to make it viable.

2.2 Business Strategies

Although the business world is not the world of war, many of the current fundamentals that drive corporate strategy are closely linked to the concepts developed in the fields of battle. As mentioned by Alday (2002), business strategies have a subtle difference: the process of formulation does not result in immediate action, but sets out the general direction in which the position of the company will grow and develop. Barcellos (2002) also mentions that it is misleading to assume that companies have only one strategy - in fact many organizations have not only new but also the adaptations and adjustments of existing strategies in progress.

Basically we have the following generic strategies that should be considered in the business world: a) competitive strategy of cost: when the company focuses its efforts in the pursuit of productive efficiency, the expansion of production volume and minimization of expenditure on advertising, technical assistance, distribution, research & development and the price is its main attraction to the consumer; b) competitive strategy of differentiation: focus on the company image, technology, technical support, distribution, development, human resources, market research and quality in order to create differential to the consumer; and c) competitive strategy of focus: the company seeks to choose a target restricted, in which through the cost or differentiation, the company will be specialized in a specific niche market.

The great question that arises for companies is how to compete in their chosen market. The answer to this question is the appropriate formulation of a competitive strategy based on size, resources and competencies. Porter (1986) points to the cost leadership or differentiation, such as strategic alternatives to be considered in competitive scope broad or narrow. His analysis model of the structure of industry and five forces (rivalry among competitors, threat of new entrants, bargaining power of suppliers, bargaining power of buyers and the threat of substitutes) meant an important contribution, especially for assessment to the competitive environment and the industry profitability.

However the Delta model developed by Hax and Hilde (2000) mentions that the strategic framework of cost or differentiation are mutually exclusive and it does not explain all the ways that companies currently are competing in the market. This model shows that companies can have three different strategies: a) establishment of a closed system that inhibits new entrants, b) customer solutions and c) establishment of better products. This model reflects fundamentally new sources of profitability and strategic options to align the business activities (processes).

Wright et al. (2000) indicate further the possibility of using low-cost, differentiation or a combination of both strategies in a whole market or just in a niche, depending on the size of the business unit. According to Gale (1994), this mixture or combination provides more value to the customer; this value is characterized as cost-effective for the buyer or price/ quality to the supplier.

Alday (2002) mentions that all strategies have risks and pitfalls. A pricing strategy can have an exaggerated focus on manufacturing and, with it, can lose the opportunity to differentiate – at the end we

have the product commoditization besides the great risk of having a new competitor introducing a new technology or process to gain significant market share. Already a differentiation strategy can also lead to a very high premium price, given the focus on the product, which can lead to the emergence of alternatives more cost-effective. Similarly, the strategy of focus can occur in the market or niche and we do not have sufficient critical mass to allow the company to operate profitably.

Wright et al. (2000) discuss that after these "umbrella" strategies, other actions and experiences in the organizations emerge: a) growth strategies: are indicated when the potential expected value of the company can increase through a better sales volume and / or better market share; b) strategies for stability: they are applied when the concentration of efforts on the business portfolio contributes to strengthening the competitive positioning of the different units; and c) reduction strategies: generally constitute the ultimate resource of business units with a faced unsatisfactory performance or even the risk of survival.

Alday (2002) mentions that the growth strategies can be achieved in several ways: a) internal growth: achieved through a increased sales, production capacity and workforce; b) vertical integration: through the new organization acquisition, waiting the increasing profits through a better efficiency or improved sales; c) horizontal integration: involving the growth by acquiring of competitors in the same line of business increasing their size, sales, earnings and market potential; d) diversification: when growth occurs with the acquisition of companies in other business lines to achieve greater efficiency through the use of shared resources; e) mergers and joint ventures: when a company joins other to form a new organization (fusion) or to work on a specific project too large to be controlled by only one party (joint venture).

Barcellos (2002) mentions that for businesses, the economic objective is to create assets to maximize returns. However, the nature of the assets and their measurements has changed in recent decades due to the changes that occurred in the economy. Today the tangible assets such as buildings, equipment, inventory, are not the most important assets in the modern economy. For most organizations, so-called intangible assets are now much more significant: it contributes more to the MVA (Market Value Added) - value of the company shares - than traditional hard assets. Among the intangible assets, the most critical is the strength and magnitude of the organization's relationships with its customers.

So any business strategy used today have to consider all these important aspects in its formulation - competitiveness is a compulsory subject in the organization management because of competition fierce and the market integration but now more than ever, firmly attached to the concept of focus in client.

2.3 Operation Strategies

After the definition of the corporation business strategy, it is necessary to operate these ideas into actions that lead the company's organizational structure to move towards the success fully viable. Each function within the company should therefore define its own strategy to support the business strategy of the company - so we have a financial strategy, marketing strategy, operation strategy and many others that are necessary.

Inman (2007) mentions that the operations strategy specifies how the company will employ its resources and capabilities to support business strategy. The operation strategy is a long-term concern with two important roles: a) provide processes that give the company a distinct advantage in the market, for example, by an unique technological processes that competitors cannot match, b) create the distinctive competencies that are the characteristics of a particular product / service that makes the buyer prefer it than to purchase a similar product or service from a competitor. Inman (2007) mentions that the main distinctive competencies are cost/price, quality, service and flexibility, with some specialists also including innovation.

In order to compete on a basis of cost / price, the company should be able to produce the product / service at a lower cost and / or be willing to accept a lower profit margin. Companies with this competence are usually structured to have huge economies of scale in order to operate with a lower profit margin per unit sold thanks to its higher sales volume.

Garvin (1987) lists eight dimensions of quality: a) performance that it refers to the characteristics of a product or service; b) compliance that is the degree to which a product or its operating characteristics meets predetermined standards; c) resources that are the features that complement the basic function of the product or service, that is, desirable features, but not absolutely necessary; d) durability that is defined as mean time to replacement; e) reliability that refers to the average time of a product to failure; e) ease of maintenance defined by the speed, courtesy, competence and ease of repairing; f) esthetics that is the appearance of the product, touch, smell, sound, or taste, which are strictly subjective and features ranging from consumer to consumer; g) perceived quality that is usually inferred from various tangible and intangible aspects of the product.

Inman (2007) mentions that companies that operate based on the quality dimension usually offer products or services that are superior to the competition in one or two of the eight dimensions and it is very difficult if not impossible, for companies able to succeed in all eight dimensions of quality at once, due to the costs involved or the trade-offs that must be made due to the nature of the product - for example, sacrificing reliability to have a higher top speed.

The distinctive competencies based on services can have many different definitions. The service can be characterized by the term customer service, quick delivery, on-time delivery, and convenient location. We can still add the product maintenance since its initial work even its replacement process when it is already technologically outdated or no longer able to be repaired.

The companies can also compete through its ability to provide the flexibility of supplying products or the volumes defined by customer - this could mean the company to accept engineering changes (changes in product) without greatly affect the delivery process or absorb large fluctuations the demand of customers.

Inman (2007) mentions that companies often put focus on a distinctive competence (rarely more than two) because these are often conflicting - a car manufacturer can produce a product that is considered high-performance (leather seats, wood trim and a large package of services) will not be able to compete on the basis of cost / price with other manufacturers of inferior performance.

Another important concept for the choice of operation strategies was introduced by Hill (2000) - qualifiers or winners of order. A qualifier is a competitive feature a company or product should have to be a viable competitor in the market. Already a winner of order is a feature of a product or service that causes a customer to choose you and not the competitor (distinctive competence). For example, a consumer who wishes to buy a new car can set the quality level and then should choose among the models that meet this requirement at the lowest cost - in this case the quality is the qualifier (must be present to be considered) and cost / price is the winner of the order (the basis for the final choice). Hill (2000) mentions the main qualifiers and winners of order: price, quality, delivery reliability, speed of delivery, product range and services, care of peak demand, capacity development of new products and services and care with the client needs.

The need for an operation strategy that reflects and supports the corporate strategy is not only important to the success of corporate strategy, it is often crucial because it involves investment and human resources that can have significant value and time to its development. As mentioned by Inman (2007), companies that fail to fully exploit the power of strategic operations can damage their competitive skills and are vulnerable to be attacked by competitors.

2.4 Corporate Governance

In the capitalist world the financing of production is one of the most important resources for one company and, in this context, it is essential to obtain the confidence of investors not only in relation to the financial performance of the company or project, but also for what they will receive in terms of the expected return. Obtaining the confidence of investors in relation to the financial performance depends primarily on the analysis of risk and return of the business. However the confidence of investors in relation to the return depends on a number of factors ranging from investor protection, the legal infrastructure, property rights and contract compliance.

Corporate governance can be seen as a set of mechanisms to increase the likelihood of the investor. It secures for them the return on their investment, since these investors typically do not effectively participate in corporate decisions. Silveira (2004) cites examples of such mechanisms as the director boards, the control of ownership, remuneration policy, capital structure, competition in the supply of manpower of managers, the existence of a market for hostile takeovers and the publication of regular reports by the companies.

Also, corporate governance has an important relationship with the company's own competitiveness: a company that differentiates itself with good governance practices is more attractive to investors, ceteris paribus, since it has more individuals interested in investing in it, increasing the supply of resources and therefore reducing the cost of these resources through debentures and long-term loans. This lower weighted average cost of capital - weighted average cost of capital (WACC) - would result in an increase in firm value which is calculated by the sum of future free cash flows brought to present value at a discount rate as measured by the WACC. In addition to the increased value, reduced cost of capital would decrease the minimum rate of attractiveness of the company, allowing it to have more projects with greater profitability, i.e., increasing its competitiveness.

The discussion about the need to improve corporate governance in companies follows due to various scandals in the years 80 to 90 caused by deviations made by financial managers. This problem is analyzed within the relations of agency, as defined by Jensen and Meckling (1976), as "a contract in which one or more persons, the principal, engages another person, agent, to play a role in its favor, involving the delegation of authority for decision making by the agent". If both parties act to maximize their personal utilities, there is a risk that the agent does not always act in the best interest of the principal.

Because of these facts, it is necessary that the shareholders can curb the executives (agents) of these companies through the so-called costs of agency that are defined by Jensen and Meckling (1976) as creation and structuring of contracts between shareholders and executives, for monitoring expenditures of the activities of managers showing to the investors that their (managers?) actions are not detrimental in the decrease in wealth shareholder.

This context has gained greater importance since the year 1980, and two main concerns has guided this effort: the reduction of risk for investors and the increased interference on business decisions (using the means of punishment for "bad managers"). With this objective, the so-called corporate governance principles are progressively developed. In the other words, "books" that establish rules for the behavior in order to protect the interests of shareholders. Compliance with these standards shall be required by investors as a precondition for the maintainability of your engagement with the company.

Sherer (2003) mentions that the short-term performance becomes the determinant of success or failure of a corporation, since its results are publicly evaluated by investors each quarter. Thus, in case of disappointing results, there is the announcement of measures that can, in the next quarter, reverse the situation and maximize value creation for shareholders. Often we see the announcement of the sale or closure of activities of units that do not create value as expected, representing a poor use of capital and layoffs of workers, even in times of economic growth in order to gain the support of investors.

3 Methodology

The main objective of the study was to analyze a business strategy in the automation market in Brazil, where growth is more important than the immediate revenue generation, focusing on an adequate operation strategy. For this goal we used the deductive method type constructed from the review of existing literature and a case study with important players in the supply chain of automation area for large petrochemical projects. From the standpoint of the objectives and the technical procedures, we have used an exploratory method to obtain a greater familiarity with the problem, as discussed by Gil (1991). We considered the literature search conducting regarding the issues related to the theory of firms, business strategies, operation strategies and corporate governance. The case study has used a semi-structured

questionnaire as suggested by Yin (2001) and the research was conducted through private interviews with the top managers of the five companies that are part of the same industrial group.

4 Research and Results

The presentation of research data and the results obtained was divided into two parts: a) a summary of the industrial group that includes the companies of the case study and; b) data collection with the companies considered in the case study. The first part is important to show the group's strategic direction and the second part to show the business strategy supported by an operation strategy.

4.1 Profile of Business Group

The industrial group is considered one of the largest conglomerates based in the USA and has over 120,000 employees working in around 150 countries and annual sales of $ 22 B. It is a century-old company that started its activities in the area of electrical components. Today it has operation in diverse sectors including a strong presence in the automation of industrial process control by providing products, solutions and services.

It features an administration focused on generating profits as can be seen in the graph shown in Figure 1 - data from 1956 to 2000, and Figure 2 - data from 2001 to 2010. This second period shows the impact of the global economic crisis of the early XX century, which also affected the results of the group analyzed. The company also has an exemplary performance when compared to companies that operate in the same segment. Figure 3 presents a comparative of EBIT (earnings before interest and taxes) between the group and its peers.

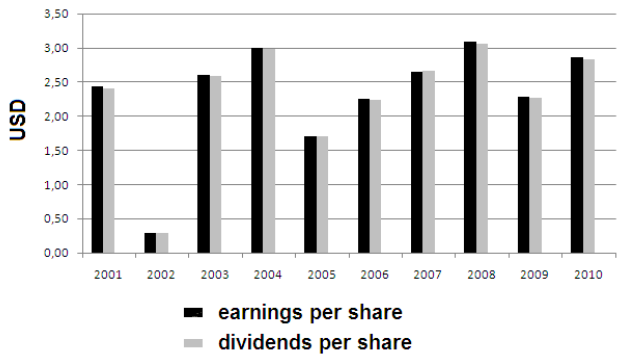

Figure 1: Profits and dividends per share – 1956 a 2000. Source: Knight, 2007

On the issue of technological development, the group has an innovative program that allows its companies to be always in the state of the art in terms of updating its products with registration of over 700 patents (see Figure 4) and investments in research and development of approximately 3.8% of annual sales (see Figure 5). The large investments made in this area led the group to have a high share of new products (36%) - launched less than five years (Figure 6) - in relation to total sales.

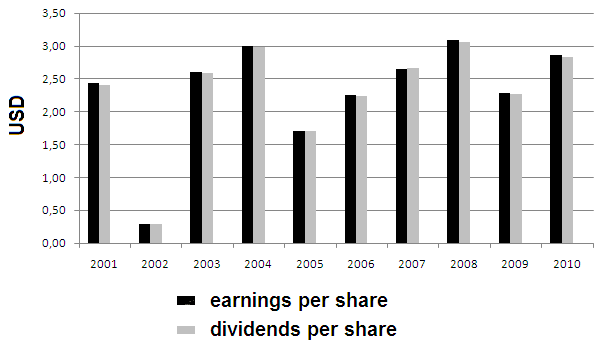

Figure 2: Profits and dividends per share – 2001 a 2010. Source: author, 2012

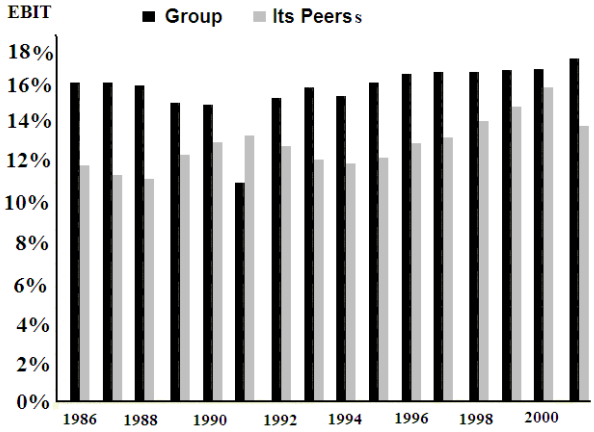

Figure 3: Comparative of EBIT between the group and its peers. Source: Knight, 2007

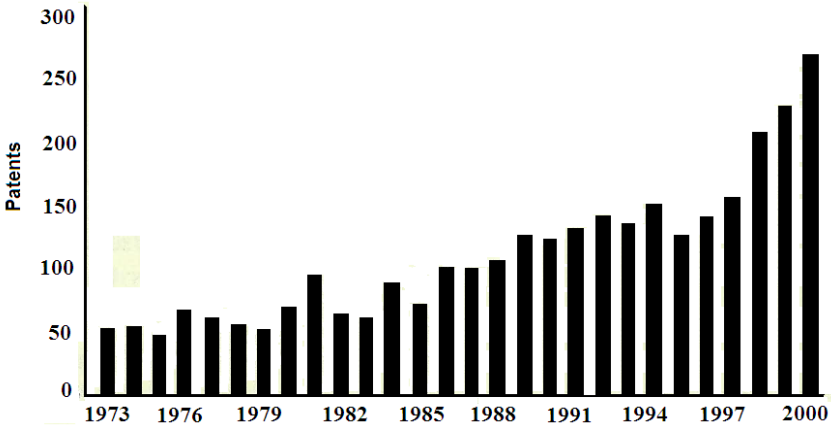

Figure 4: Patents. Source: Knight, 2007

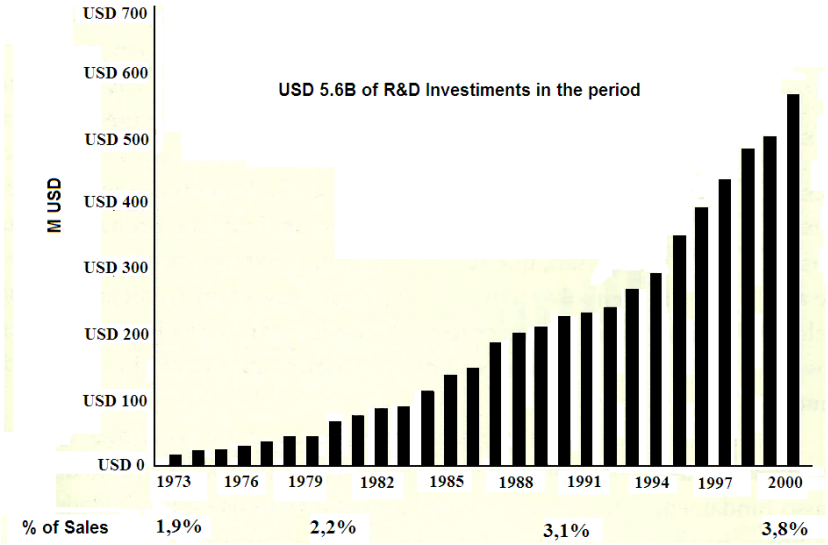

Figure 5: R&D Investments. Source: Knight, 2007

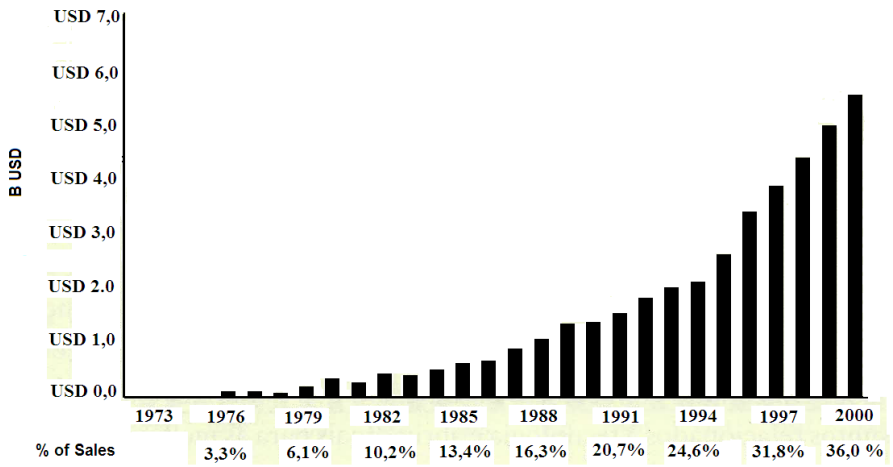

Figure 6: Participation of new product in total sales. Source: Knight, 2007

The second striking feature of the group is growing through acquisition of other companies in order to expand the portfolio. In a period of 30 years there were over 200 acquisitions with an investment of USD 10 billion (Figure 7). Thanks to an efficient management system, the acquired companies had an average internal rate of return of 15% after the first five years of operation built into the group, with a mean improvement of 2.9% in operational profit.

As a third characteristic, an operational excellence focused on an effective cost control, productivity and an appropriate make-buy. The Figure 8 presents an analysis of operating results comparing the years 2000 and 2005 - this analysis is interesting because it shows the items that negatively impacted the results and which could make the reversion of the results. As strategies to achieve operational excellence we can highlight: a) organization of procurement activities, improving the people involved in activities, centralizing the purchase of commodities at the corporate level, reducing the number of suppliers, establishing long-term agreements, and intensifying the use of information technologies, b) establishment of programs for lean manufacturing through a structured approach which reduced the total production time, with the elimination of waste and activities that do not add value, and the implementation of quality programs based on six sigma. The Figure 9 summarizes the financial model used by the group that allows banks to operate with double-digit growth and the Figure 10 shows the sales growing in the period 2001 to 2010.

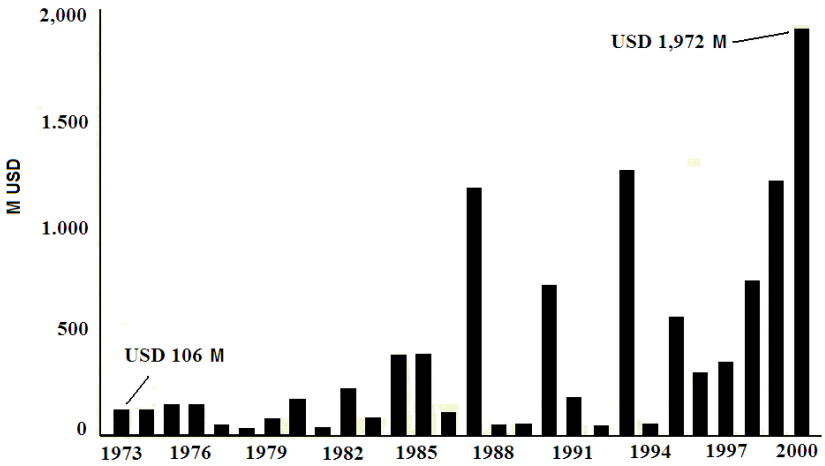

Figure 7: Acquisitions program. Source: Knight, 2007

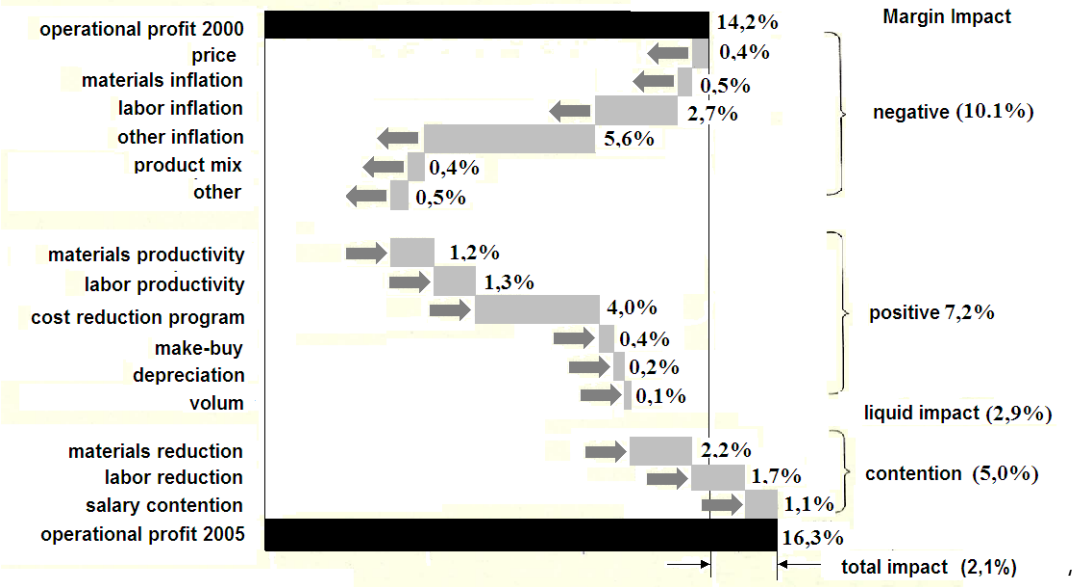

Figure 8: Operational excellence. Source: Knight, 2007

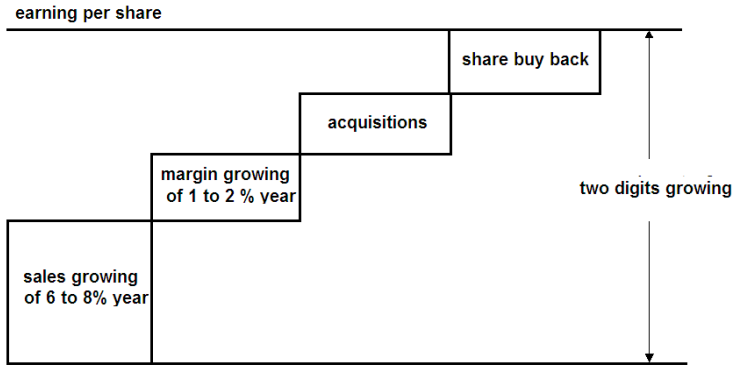

Figure 9: Financial Model. Source: Knight, 2007

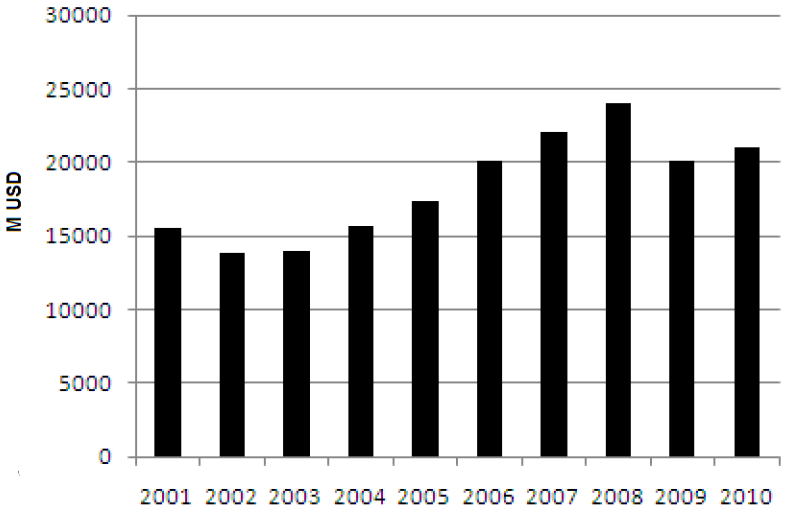

Figure 10: Sales Growing period 2001-2010. Source: author, 2012

4.2 Analysis of Group Companies Operating in Brazil

The analyzed group has operations in Brazil with several different companies operating in nearly the same segments observed in the rest of the world. All companies operating in Brazil are under the orders of their

headquarters which in turn operate under the same guidelines of the corporate group. Figure 11 shows the performance of a business unit in Brazil which contains the companies considered in the case study.

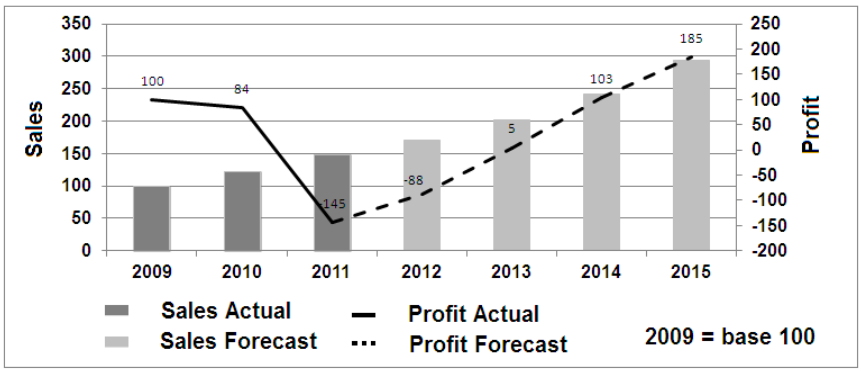

Figure 11: Performance of Group Companies in Brazil. Source: author, 2012

4.2.1 Analysis of Company A

The company A is part of the unit whose results were presented in Figure 11. It is a market leader in its segment and provides equipment and metering systems for medium / large industrial plants primarily for the oil and natural gas. It is a company founded in the 40's and acquired by the group in 1999. Its current strategy is to invest heavily in services that were never its focus, creating a specific department that aims to contribute 20% of the results of this company until 2015. This new department began in 2010 and will receive investments of around 3% of the company's revenues for the period of 2011-2015 including the installation of new flow laboratories. It is expected that services will contribute with 65% of the profits of the company at the end of that period.

The type of product supplied to the market has great potential to provide services to end users - maintenance, supply of spare parts, repairs and calibrations. The competition in the Brazilian market is leading to a reduction of margins and the implementation of a service structure is the strategy to reverse this situation. The Figure 12 shows the results of the company, made and provided for the period considered.

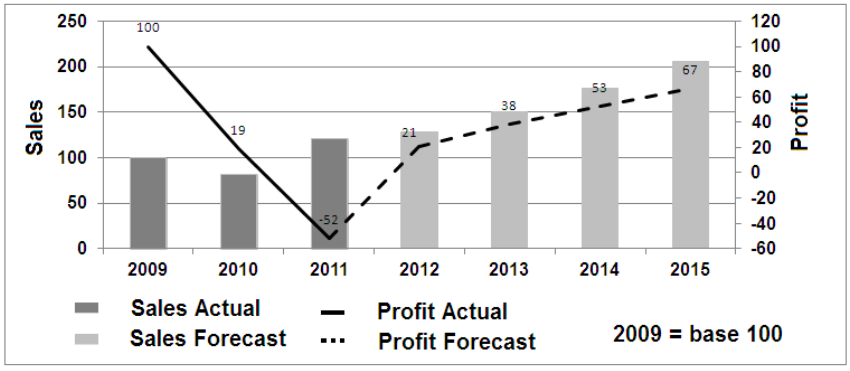

Figure 12: Performance of Company A in Brazil; Source: author, 2012

4.2.2 Analysis of Company B

The company B is also part of the unit whose results were presented in Figure 11. It is a company that focuses on the supply of complete systems for automation of large plants, including equipment, solutions and services. Its main markets are the petrochemical processing plants. It was an established company within the group in the 90s with two products developed by other companies that worked on the same segment and were competing with each other - so a corporate decision has defined the creation of a new company taking advantage of the synergy.

It is a company that focuses on supply after-sales services, with specific departments, due to its products requiring maintenance, supply of spare parts and repairs using long-term contracts for service in the

regime of 24 hours / 7 days a week. Its current strategy is to create conditions for these after-sales services to increase the current 16% to 25% by 2015; these services will represent 55% of the company´s profits at the end of that period. Figure 13 presents the results of the company, made and provided for the period considered.

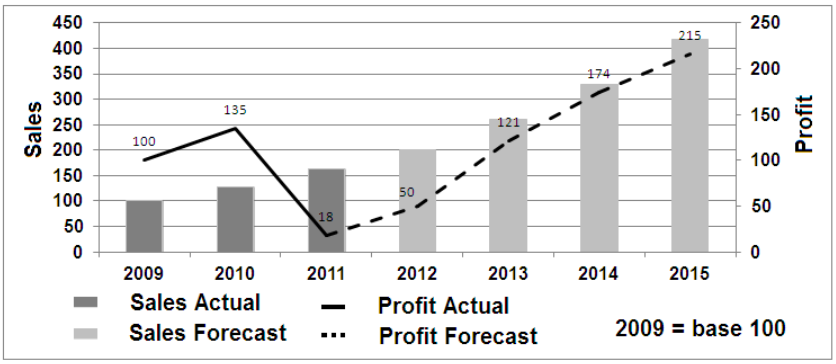

Figure 13: Performance of Company B in Brazil. Source: author, 2012

4.2.3 Analysis of Company C

This company is also part of the business unit presented in Figure 11. It is a market leader in its segment and provides equipment for process control primarily for the oil and natural gas. It is a company with over 125 years old and was acquired by the group in 1992. As a market leader in providing products it never had a focus on providing after-sales services due to understand that the services could be supplied by third parties. In the last two years there was a change in the strategy and the company started to develop a service department with the mission to provide spare-parts, repairing and diagnostic services at high level. Its goal is that this department will be responsible for contributing 18% of total sales and 50% of total profits expected in 2015.

Here, the competition in the Brazilian market is also leading to a reduction of margins and the implementation of a service structure is the strategy to reverse this situation. Figure 14 shows the results of the company, made and provided for the period considered.

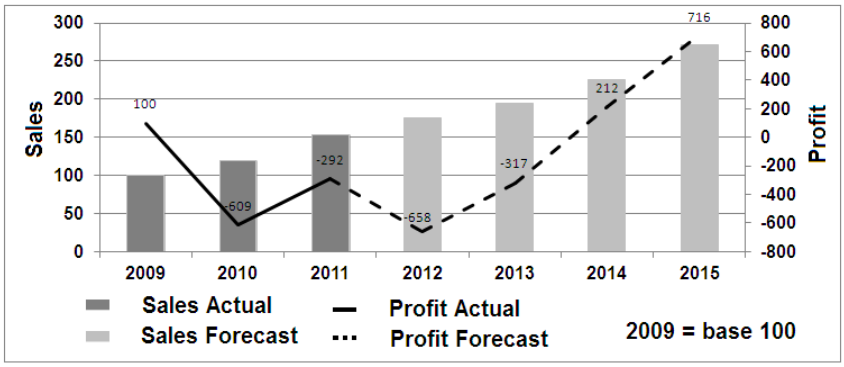

Figure 14: Performance of Company C in Brazil. Source: author, 2012

4.2.4 Analysis of Company D

The company D also composes the group shown in Figure 11 and is a market leader in its segment. Basically provides flow meters for process control primarily for the oil and natural gas. It is a company acquired by the group in 1984 and (?) it did not and does not put focus on providing after-sales services due to the understanding that the product supplied does not need a more specific support. The company understands that the fall in profits during the period 2011-2012 is due to specific market situations and it is not necessary to change the strategy of its business.

It does not have plans to implement a specific department to execute after-sales activities provided that their growth will be supported by the sale of products in markets where it already operates. Figure 15 presents the results of the company, made and provided for the period considered.

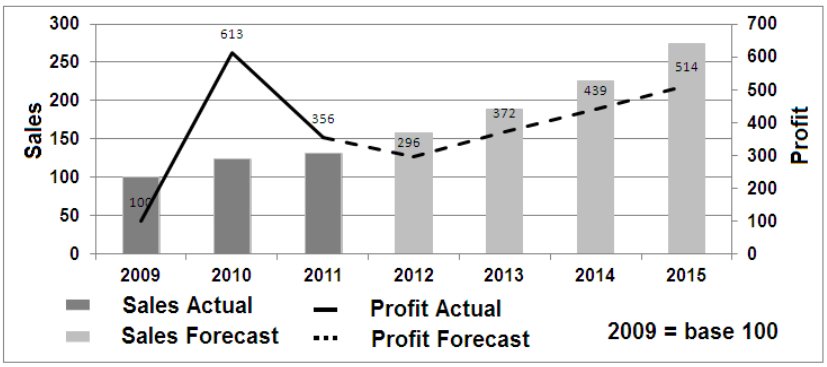

Figure 15: Performance of Company D in Brazil. Source: author, 2012

4.2.5 Analysis of the Company E

The last company analyzed is also in the same group shown in Figure 11 which is the market leader in supplying equipment for measuring of single variables such as process pressure, temperature and level. It was a company founded in 1956 and acquired by the group in 1976, thus being a founding member of the group analyzed.

It considers that the sale of after-sales services has a poor contribution to its business and the falling profits in the period 2011-2012 was due to problems in the production of subassemblies that have moved to China impaired the performance in all countries, Brazil included. Figure 19 presents the results of the company, made and provided for the period considered.

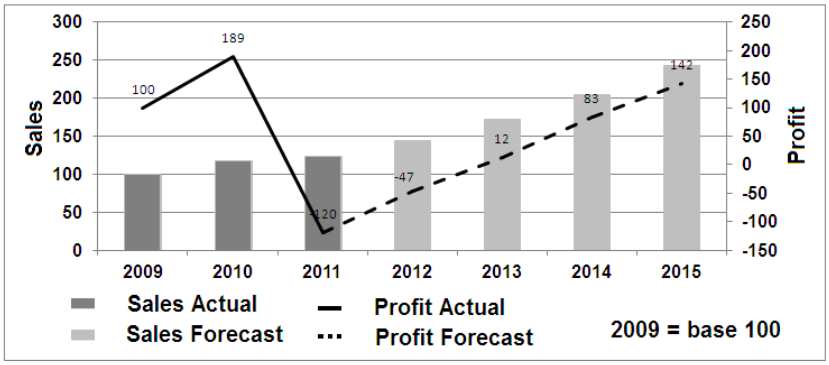

Figure 16: Performance of Company E in Brazil. Source: author, 2012

4.2.6 Additional Comments

The five companies analyzed represent 74% of total sales group in Brazil and all have had problems with profitability in the period of 2010-2012; it is understood because the entity also has profitability problems in the same period. The future question to be considered is the understanding of the reasons of this low profitability but this study will put focus on the after-sales strategy to recover the profits in the 2012.

5 Conclusions

The case studies allow us to observe that the group has clear strategies for its market positioning. There is a clear choice for competitive differentiation with a strategy primarily focused on technological advancement. The amount spent on research and development (3.8% of sales), the good result obtained in the patents (over 700) and as a consequence, a significant volume of sales of new products (36%), clearly shows this orientation.

It was also noted that the group adopts growth strategies to increase the company's value and greater market share. We can see the adoption of strategies of internal growth through sales in markets already dominated - annual averages 6 to 8%, and the acquisition of competitors in the same line of business - values that reach $ 10 B in a period of 30 years.

And undeniably the group has a focus on generating profits, except in the recent period of global crisis (2001-2010), it always has been growing in the double digits. The pursuit of operational excellence through an effective cost control, productivity and make-buy decisions, much contributed to these outcomes. It is also verified that the corporate management is highly effective and efficient and the best measure for this is found in the results of companies acquired by the group - an average internal rate of return of 15% after the first five years of incorporation to the group, with a mean improvement of 2.9% in operation profit.

This analysis allows us to conclude that there is a good model of corporate management and the companies operating in Brazil have the same guidelines as the organization's values. Thus, the analysis of the results of the group with its operations in this country allows us to infer that there is a clear strategy to justify tolerance of low results.

With the study of companies A, B and C we verify that the after-sale services can explain its strategy: to increase the installed base to get more profits by services. Plans to increase the participation of up to 20% in the sales until 2015 with the participation of services in the profits of up to 65% of the total showing the importance they are giving to this strategy, which, by the way, was anticipated by Hill (2000)and as recommended in the model Delta (2000). It was also noted that companies D and E do not have the same strategy due to the different characteristics of their market positioning. Table 1 summarizes these differences for further analysis.

Table 1: Comparative among the companies

Company	Product Feature	After-sales department	Participation of services in the sales of 2015	Participation of services in the profits of 2015
A	has potential for pos-sales services	yes	20%	65%
B	has potential for pos-sales services	yes	25%	55%
C	has potential for pos-sales services	yes	18%	50%
D	does not have significative potential for services	no	insignificant	insignificant
E	does not have significative potential for services	no	insignificant	insignificant

Source: author, 2012

That is, for companies A, B and C the strategy of the after-sales service is recognized as an integral part of the value chain. It creates economic value, since it represents the best opportunity for greater profit margin. It also shows an exceptional mechanism to gather information about customers and monitor the performance of products, and serve as a platform on which companies can foster strong and with good relationships with their customers more profitable. Companies that exceed their expectations with after-sales activities can also increase the customer loyalty and retention of long-term, since the cost of winning a new customer is usually higher. Another important consideration is that services are less susceptible to commoditization; it offers to the companies the opportunity to stem the defection of customers and promote the brand extension.

However, this strategy must all be properly aligned with the management of operations mainly when it is defined as after-sales service approach with a proposal to generate significant revenues and profits and growing. The preparation of the facilities, equipments and labor to that these services will be performed with high quality is necessary.

Finally there is the issue of corporate governance that can be an impediment to the implementation of this strategy of growth without profit. As verified, investors have focused on achieving results in short term and the establishment of a plan that shows that evolution, properly approved by the Board, is the main tool for viability of the after-sales strategy. This is perhaps the greatest risk: the impatience of investors due to worse than expected results that can lead to the adoption of actions to minimize costs, hindering the implementation of the solution. We must note that there is no way to predict the worsening global crisis observed since 2001 and that this can affect the growth curve of the sales of these companies - a deterioration of the sales can derail that strategy.

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