

LOGISTIC STRATEGY AND ORGANIZATIONAL STRUCTURE IN BRAZILIAN SMALL AND MEDIUM-SIZED ENTERPRISES (SMES)

Wesley Silva Xavier*

Interdisciplinary Center for Logistics Research, Brazil

Ricardo S. Martins**

*School of Business Administration/Federal University of Minas Gerais (UFMG),
Interdisciplinary Center for Logistics Research, Brazil*

Abstract: *This study evaluates the logistic strategies developed in Small and Medium-sized Enterprises (SMEs) as a response to their organizational structures and planning processes. A multiple case study was carried out in the second largest furniture cluster in Brazil. Based on theoretical models, it was found that the characteristics of a company's organizational structure had an impact on planning. In the case of companies with a low level of family participation, this impact was intentional, whereas in the case of companies with strongly centralized owner control over decision-making, the impact was unplanned. However, the formal nature of planning does not guarantee that logistics will have strategic aims and, in all cases, it has a strictly reactive nature.*

Key words: *logistic strategies; small and medium-sized enterprises; furniture industry; Brazil*

1. Introduction

Integrated logistics constitutes a differential for companies which operate in supply chains, especially because of the need to align themselves with partners and the possibility of aggregating value in time and space. Integration of logistic activities becomes possible when information is shared between the different areas of internal activity and between partners in the chain.

When the organization of SMEs is analyzed, due to the fact that decision-making is, to a large extent, owner-centred, some aggravating circumstances can be found.

* Interdisciplinary Center for Logistics Research, 6.627, Antônio Carlos Av. – Zip Code 31270-901 – Belo Horizonte, MG, Brazil. e-mail: wescleysxavier@yahoo.com.br

** *Corresponding author:* Interdisciplinary Center for Logistics Research. 6.627, Antônio Carlos Av. – Zip Code 31270-901- Belo Horizonte, MG, Brazil. e-mail: martins@cepead.face.ufmg.br

According to Gélinas & Bigras (2004), lack of transparency in the flow of information causes inconsistencies in decision-making and difficulties in controlling performance and using competitive strategies. These elements become even more critical when taken in conjunction with the informal attitude shown by SMEs to their strategies, since integrated logistics depends on coordination of formalized planning and intentional strategies.

Because it is considered that logistic strategies in SMEs depend, to a certain extent, on the result of an inter-relationship that involves the organizational structure, in particular, the level of centralized decision-making, and strategic thinking, this article aims to study the way in which the inter-relationship between these two factors and logistic strategies constitutes a response to the nature of organizational structures and planning processes in SMEs. To summarize, our research problem shows how organizational structure affects planning processes, and how its results impact on logistics strategies.

In this study, the suggested interrelationship is based on an organizational structure that is compatible with the strategic thinking found in SMEs. The family company is used as an example of the organizational structure that is typical of SMEs, where decision-making is controlled by the owner and/or founder of the company or his successors. The underlying features of strategic development are principally used for strategic thinking in these organizations, no matter whether it is unplanned, planned or reactive.

Although logistics is unquestionably important for SMEs, it is worth highlighting the fact that there are very few studies devoted to research into logistic strategies in such organizations. Moreover, studies about SMEs are important in certain emergent economies like Brazil, since these types of enterprises provide 57.2% of the jobs, and constitute 99.2% of registered enterprises. Thus, a large part of the knowledge produced so far remains decontextualized and this also makes it impossible to make any specific changes that could bring about improvements.

2. Business Strategies and Logistics Strategies

According to Wit and Meyer (2003), organizations develop distinctive traits during the process of developing strategies because they differ in the same way as the context in which they operate. Ates et al. (2008) simplified the concept of strategy as being how to get out of where we are and get to where we want to be. Even though they acknowledge that the great majority of the approaches to strategy go through four basic stages – formulation, implementation, control and revision – the authors emphasize that strategies are more than simply a series of sequential activities; they are made up of interactive activities.

Ates et al. (2008) place interactiveness in the context of SMEs and highlight the fact that the success of these companies almost always depends on the positive qualities and personal abilities of the owner instead of classic management processes. The openings for new approaches to strategy have grown in importance, mainly in the work

produced by Mintzberg et al. (2000), in which the authors classify these approaches into ten schools of strategic thought. Three are prescriptive or consciously worked out – the design, planning and positioning schools, and other six – the entrepreneurial, cognitive, learning, power, and cultural and environmental schools are descriptive. The configuration school, however, deals with strategic development from the perspective of a company's life cycle, grouping specific elements which prevent it from being classified as either planned or descriptive.

As Ates et al. (2008) have already pointed out, planned strategies are grounded in the four stages of formulation, implementation, control and revision. These are based on the set of ends and targets that organizations require in order to achieve a planned objective. The targets and ends should be derived from a strength and weakness analysis in relation to the opportunities and threats that are present in the given situation, as summarized in the well-known SWOT matrix, which is widely used in the development of planned strategies.

After the targets have been settled, it remains to implement the strategies, where the planning is organised in short, medium and long-term stages. According to this point of view, the hierarchy existing between such levels as strategic, tactical and operational is justified as a means of coordinating the organization's activities in order to ensure the its aims are achieved (Mintzberg, 2004). Porter (1996) argues that the decisions made by an organization both determine and reveal its objectives, intentions and goals, and that these invariably have to be followed by appropriate plans and policies. After implementation, the results are noted and compared to what had been planned so that any distortions can be corrected at the same time as making necessary adjustments as a result of possible changes in the overall context.

In addition to the category of planned strategies, another widely used typology is that of emergent strategies. The term "emergent" was originally introduced by Mintzberg in the 1970s and is intended to mean an "unplanned strategy" (Mariotto, 2003). Emergent strategies appear in various guises. One of them is to overcome the hierarchical separation where a small group of leaders do the planning and those at operational level carry out what has been decided. This type of separation can be overcome by top management encouraging those at the lower levels of the company to take the initiative of suggesting strategic aims. According to Mariotto (2003), this type of practice is typically used when new projects and products are being developed.

As well as arising from overcoming hierarchical divisions in determining strategy, emergent planning can also result from cognitive processes. In this case, instead of strategies being formulated on the basis of previous intentions – intentional strategy – the intentions come into being in the course of organizational activities (Mariotto, 2003). In this way objectives and goals unfold in the day to day activities of the organization and are constructed on the basis of a cognitive process.

This last mentioned approach to emergent strategy matches the viewpoint of various authors (Gélinas & Bigras, 2004; Ates et al., 2008) on the development of strategies in SMEs where the entrepreneur's opinions and experience have an overwhelming

influence on the activities of the company, so that, even without making use of intentional planning, his actions are legitimised by the ability to respond on the basis of past experience.

2.1. The Development of Strategies in SMEs defined as Family Organizations

The study of family companies helps to understand, in part, the way in which the dynamics of SMEs are mainly the result of the role played by the founders or their successors in the company's decision-making process. Although there is no formal concept which can be used to define the family company, it is possible to identify the convergence of family and company units in the definitions offered by various authors. According to Bernhoeft (1989, p.33), the family company is characterized by having its origin and history linked to the family.

The family company is characterized by hereditary succession and institutional values for which the family name or the figure of the founder serve as identifying factors. These symbolic elements and the degree of power which comes with them are susceptible to changes over time. Because of its importance, Gersick et al. (2003) insert the time variable in the model originally proposed by Tagiuri & Davis (1985), which already differentiated company from ownership, thus giving a three-circle model consisting of three sub-systems: family, company management and ownership.

According to Gersick et al. (2003), this model describes the three sub-systems as being independent but superimposed. In the opinion of Gersick et al. (2003), although the model created by Tagiuri & Davis (1985) is valuable, it only provides the basis for analyzing a specific time horizon, and is, therefore, relatively static. Due to the fact that the majority of the dilemmas faced by companies are associated with transitions, Gersick et al. (2003) inserted the time variable into the model.

According to the authors, the passage of time brings with itself changes in organizations, in the family and in the distribution of ownership. The managements of organizations alternate and, consequently, ways of thinking about the business change. The dynamics of the family are modified by marriages and the birth of children. The succession of ownership alters control of the company and it is common for each member's participation to undergo fragmentation. For Gersick et al. (2003), the transitions in boundaries, such as those between family and company are of great importance, as is the inheritance of property by new people, especially children and grandchildren. Thus, it is only possible to analyse all these sequences of events adequately by using the time variable.

2.2. The Ownership and Business Developmental Dimension

Although the original model emphasises the family, ownership and company dimensions, this study puts the emphasis on the last two aspects. The description regarding the ownership dimension given by Gersick et al. (2003) points out that the

different forms of family ownership result in fundamental differences in all aspects of the family company. According to the authors, there are different scales of ownership structure: some companies are owned by a single person, others by a married couple or by partners with no family connection. Although they point out that there are complex relationships that go far beyond the ownership model, as in the case of organizations with shareholders, Gersick et al. (2003) base their study on a three-stage ownership axis with a sequence that moves from controlling owner, to sibling partnership and then to a cousin consortium.

This dimension suggests that when company activities begin, they are centred on the person of the controlling owner. In this phase it is common for power to be centralized in the controlling owner with the other managerial functions being carried out by the members of the family who are seen to be trustworthy – normally the children. As time goes by, a sibling partnership comes into being, where the main challenge is to maintain a partnership that is suitable to the members of the family. The cousin consortium, however, takes three generations to develop and, as a result of the more distant family relationship, the main challenge here is to administer family and company relationships. Although this model is linear, the authors emphasize that many companies do not follow the sequence, as in the case, for example, where an only child inherits the company.

The dimension of company development can be divided into three stages; start-up, expansion-formalisation and maturity. In the authors' opinion, the stage of maturity has been neglected by many authors who have studied family organizations.

The stages are separated according to growth, maturity of the products, capitalization and indebtedness, development of executives who are not family members, and internationalisation. The beginning of the first stage is characterized by the foundation of the company and its first years of existence, which is a period when survival of the business is the main challenge. In this stage, the tendency is for decision-making to be strongly centralized in the hands of the founder.

The second stage – expansion-formalization – commences when the company begins to establish itself in the market and develops routine activities which can be supported by a forecasting system. At this stage, there are deep-seated organizational changes, as companies seek to shape their growth curve and consolidate their initial structure in order to guarantee a smoother succession. Gersick et al. (2003) point out that, in this phase, companies experience positive and negative consequences as a result of growth, such as an increase in opportunities and tensions, due to expansion outpacing infrastructure.

Finally, there is the mature stage, where market growth stagnates and forces the company to fight for sales in increasingly less profitable markets. In this phase, operations are highly routinized and growth expectations modest, even when operations are carried out with great efficiency. In the opinion of the authors, the really serious challenge facing companies in this phase of development is renewal and recycling in order to avoid the decline of the company.

2.3. The Strategic Nature of Logistics and Implications for SMEs

The typical elements of a logistic system, such as customer services, sales forecasting, distribution communications, stock control, materials handling and ordering, amongst others, may give companies competitive advantages, especially when based on the exchange of reliable information between the links in the chain (Bowersox, Closs & Drayer, 2005). A complementary factor here is that the advantage provided by logistics becomes stronger to the extent that it also incorporates such activities as management of customers with a high level of demand, expertise in financial decision-making and the use of different methods of purchasing products and services (Bowersox, Closs & Drayer, 2000).

If we accept Ballou's (2006) viewpoint that the physical distribution aspect of logistics has undergone a transition from being the last frontier for obtaining cost reductions (Drucker, 1962) to an area which aggregates value to the service offered to the client, impacting sales and, consequently, profits (Heskett, 1971), then this context is now typical. According to Ballou (2006) and Heskett (1971), the challenge created by the above-mentioned transition consists in finding methods of measuring the effects on sales and profits caused by the fact that the concept of logistics has "gone beyond cost reduction". It is clear that aspects of customer service are involved here, ranging from the purchase of raw materials to after-sales service for the customer and also including third-party services (Rutner & Langlely Jr., 2000).

In addition to making it possible to have alignments which strengthen development of new products, the strategic nature of Supply Chain Management (SCM) makes its presence felt, mainly by strengthening integrated and coordinated links in the chain by means of logistic processes (Mentzer et al., 2001), given that it incorporates planning and management of all logistic activities. Therefore SCM creates links and coordinates the processes of other companies in the chain, from suppliers to the final customer (Christopher, 2007; Cooper, Lambert & Pagh, 1997).

For Christopher (2007), the new pattern of relationships in a chain organized according to the principles of logistics can be an important source of competitive advantage which, in the opinion of this author, may be based on either value or costs, or, preferably, on a combination of both factors. The cost advantages are based on a lower total cost for activities, which, generally, is not obtained by economies of scale but by logistics and by management of the chain. In this case, the total cost incorporates all logistic requirements and attempts to minimize operating costs (e.g., transport) are analysed together with trade-offs, since the costs are related to each other and a reduction in operating costs for one function has an effect on increases in another (Bowersox, Closs & Cooper, 2007).

The value advantages, on the other hand, are obtained by a closer relationship between consumers and activities in value segments and in both types of advantage, logistics plays an essential role, since logistic costs are significant. The advantages based on value have increasingly concentrated on services where customers seek reliability and responsiveness (Christopher, 2007).

Although Christopher (2007) not only highlights the possibility of combining competitive advantages derived from cost and value but also the possible contribution of logistics, other authors point out the importance of strategic alignment in the most uniform chain as a means of obtaining differentiation. In Porter's (2007) opinion, a competitive strategy consists in deliberately choosing a set of integrated activities in order to provide a unique combination of value.

Porter's (1996) thinking on this issue is also echoed by Chopra & Meindl (2003), for whom strategic alignment presupposes strategies involving the supply chain. The displacement of competition from between companies to between chains forces each one to put forward its strategies. These are generally based on responsiveness and efficiency as the defining factors in strategic positioning or on the balance between them in all the logistic activities in the chain, since it is assumed that there is alignment between its links (Chopra & Meindl, 2003; Fischer, 1997).

For these authors, strategic alignment based on responsiveness means that the supply chain must be able to respond to high levels of demand, provide service with short lead times, handle a large variety of products, provide innovative products and a high level of service quality, select suppliers on the basis of speed, flexibility and quality, and have responsive means of transport. Strategic alignment based on efficiency, however, requires the chain to focus on supplying demand at the lowest possible cost, to maximize performance at minimum cost per product, to minimize stocks in order to reduce costs, choose suppliers on the basis of cost and quality and to have the cheapest means of transport.

So, the competitive strategies adopted by companies must be aligned with the strategies used within the supply chain, since the integration of inter and intra-organizational processes is of fundamental importance for competition between chains as a means of guaranteeing the coherence of the chosen strategies (Chopra & Meindl, 2003).

Despite the potential for strategic alignment within the chain, management of these interactions is becoming more complex. According to G elinas & Bigras (2004), a number of critical points among the innumerable interactions forming the supply chain should be noted. The authors highlight the increase in the probability of inconsistent decision-making, and use of incomplete solutions (e.g., limited to the distribution function) for logistic problems; difficulties in exercising general control over performance, whether or not decisions are taken at the local level; the impossibility of using competitive strategies if the links in the chain are not integrated; the losses as regards competitive advantage and the development of new products when new information systems (IS) are not used.

In relation to these critical points, especially those which do not involve integration, Stock (2001) emphasizes that they are aspects of logistic short-sightedness. This term used by the author is taken from the classic study carried out by Theodore Levitt in 1960, in which this author asserts that railway transport collapsed because companies made the mistake of thinking that customers demand was for trains, whereas, in reality, it was for transport. As a result, they were subsequently replaced by cars, buses and other means of transport.

In his seminal study, Levitt points out that the companies focussed on products and not on customer needs. By analogy, Stock (2001) points out that, among other errors, logistic short-sightedness commits the mistake of focussing on products and not on customer service. In this case, logistic activities such as orders, transport, stock control and storage are limited to minimizing costs and maximizing service levels (e.g., reductions in the order cycle and optimizing transport).

Stock (2001) holds that this approach is not mistaken but that it *does* put forward a limited vision in a traditional manner because it considers how logistics can be developed in a more efficient and efficacious way, be it by the company itself or with the help of associates. It therefore constitutes a hindrance to the company's activities, even when logistic operations are contracted out to a third party and is short-sighted because it does not take into consideration the way in which logistics could improve the efficiency and effectiveness of the supply chain in line with a interactive approach and planning for the whole chain (Stock, 2001).

Gélinas & Bigras (2004) also stress the need for integrated operations in the chain, together with alignment of logistic activities. However, in spite of the fact that the authors highlight how integrated logistics has increasingly been taken up in studies in the area, they point out the lack of research directed at SMEs, since after the pioneering work carried out by Love and Gilmour (1976) only a few articles have been published which study the application of logistics in SMEs.

Among the studies that consider SMEs, Landry (1990) indicates the need for integrated logistics based on a long-term relationship with supply chain partners, so as to encourage development of new products and improvements in all logistic operations. The author points to possible advantages resulting from partnerships, such as lasting relationships, increase in market share and knowledge transfer. However, he also lists some conspicuous disadvantages, such as the risk of incomplete integration, a high level of dependency and conflicts.

Halley & Guilhon (1997) point out that one of the great difficulties in transferring the strategic aspect of logistics to SMEs is the manner in which logistic activities are conceptualized. In their opinion, although such aspects as customer needs and satisfaction, purchasing, and other items in the supply chain are beginning to be seen as strategic elements, the idea of fragmented activities is still predominant.

Other studies have directed attention once more to the effect of the owner-founder's presence. Filion (1991, cited in Gélinas & Bigras, 2004), Winston & Heiko (1990), Julien & Marchesnay (1998, cited in Gélinas & Bigras, 2004) emphasise that the entrepreneur is a key figure in all the activities of SMEs. Thus, even in organizations with a certain level of structure, the owner of the company will be in direct contact with operational activities.

For Gasse (1982, cited in Gélinas & Bigras, 2004), this close contact with all the company's activities and the fact that the company's approach is tightly controlled by the owner has some effect on logistic activities, mainly because entrepreneurs require independence and autonomy. Gasse (1982) points out that the results of this process

are: difficulties in delegating, consulting and sharing activities with third parties, attention being directed more at effectiveness than at efficiency, and an exaggerated preference for taking advantage of opportunities to the detriment of watching out for possible problems.

Thus, it is possible to identify aspects which may constitute obstacles to logistic integration. The combined presence of elements such as independence and autonomy in owner-founder management, along with the lack of inclination to delegate and share activities, can create difficulties for participative management as well as information sharing and use of third-party services, all of which are common features of integrated logistics (Gélinas & Bigras, 2004).

According to Halley & Guilhon (1997), logistic strategies are defined by a mixture of factors made up of environmental variables, the characteristics of the company owner and organizational elements. The environmental variables consist of opportunities which are perceived by entrepreneurs on the basis of experience. The opportunities and the entrepreneurs' experiences, together with the company's organizational structure, create a basic framework of competencies and potentialities for selecting particular logistic strategies, both in terms of decisions about internal activities and the possibility of cooperation with third parties.

To a large extent, this behaviour is motivated by the feeling that power is unequally distributed in partnerships, so that SMEs feel at a disadvantage in relation to possible partners because of the reduction of autonomy and independence that this would involve (Gélinas & Bigras, 2004). For St-John & Heriot (1993), this feeling on the part of owner-founders produces integrated logistics of a defensive nature, due to a conspicuous loss of freedom, the imposition of standards by partners and the risk of revealing information which entrepreneurs hold to be confidential.

Another notable feature is the fact that these companies tend to establish – as in other areas – logistic systems with a low level of formality and a high degree of independence between the different operations, all of which depend on the founder's experience. Although, on the one hand, this characteristic is the result of centralized decision-making, on the other hand, their logistic systems are more organic than mechanical in nature (Mintzberg, 2000), as well as allowing greater responsiveness and flexibility in the face of constant change (D'Ambroise, 1989, cited in Gélinas & Bigras, 2004).

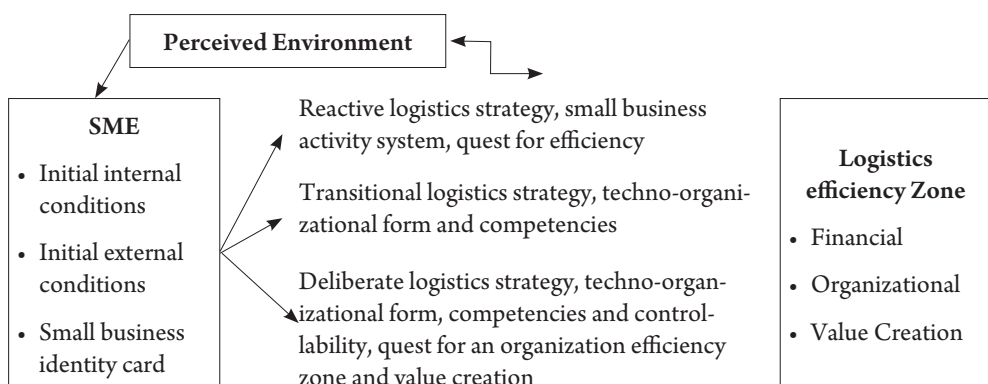
The responses to these changes partly depend on each company's ability to forecast them. The use of IS can be considered to be absolutely essential for any possibility of making forecasts, as well as providing the foundation for planning a structured logistic system which is able to aggregate value in the delivery of services. It is also fundamental for the relationships between partners in the supply chain. According to Gélinas & Bigras (2004), SMEs have two characteristics which block the use of these systems. The first is cultural, since there is an informal flow of information where cognitive ability – mainly the owner's – forms the basis for decision-making. The other factor is the low level of investment capability, since there is a positive correlation between company size and investment in IS.

Because the owner's presence is of considerable importance for decision-making, Halley & Guilhon (1997) point out that the management style used in a company influences the way in which strategies are developed. For these authors, there will be a proactive tendency if the management of the company is based on taking advantage of current opportunities and searching for future ones, in a scenario where efficiency, therefore, outweighs effectiveness. On the other hand, the authors also point out that there will be a reactive strategy when owners attempt to perpetuate their power and resist any changes which lead to loss of decision-making power and independence.

The interaction between the characteristics of relatively centralised management is reflected in logistic strategies (Halley & Guilhon, 1997). These authors point out that logistics may be both reactive and non-integrated. In this case, owner control and decision-making are imperative, where the majority of the choices have the aim of reducing costs to the detriment of aggregating value to the customers.

Another possibility is an unplanned logistic strategy where a company joins with other companies in order to establish a more lasting relationship. The basis for this relationship is mutual learning in which partners' competencies are utilized but with the limited aim of making improvements in the company's activities. Last of all, there is a proactive logistic strategy where there is a high level of integration between partners, and logistics constitutes the basis for planning across the whole chain so that the information flow is transparent and there is integration which is intended to develop the chain.

Based on a company's internal and external elements as well as its identity, partly shaped by the owner's thinking, Halley & Guilhon (1997) designed a model of strategic logistics which not only takes into consideration whether a company's strategic thinking is reactive, transitional or deliberate but also the result of these interactions and thus provides companies with the outlines of logistic efficiency. (Figure 1).



Source: Halley and Guilhon, p. 483, 1997.

FIGURE 1. Strategic Logistics Model.

The starting point for the model is the understanding that there are environmental variables on the owner's side that interact with and refashion the company's identity. The strategies are produced according to external and internal variables (need for change, logistic requirements, dependence on other companies in the chain, competencies, the sector in which the company operates, etc.), and can be unplanned, reactive or proactive. Lastly, all the elements converge on the question of what it means for a particular company to operate with logistic efficiency in a zone of efficiency that takes into account the factors of organizational costs and those deriving from value creation.

When building the model of logistic strategy for SMEs, the authors considered three theoretical premises. The first of these affirms that management perceptions regarding logistic requirements are associated with the company's initial internal and external situation. The second premise holds that SMEs develop more or less integrated logistics in accordance with their structures and the behaviour of their members. Lastly, the authors point out that logistic strategies are integrated when companies make use of organizational and financial indicators.

3. Methodology

This article aims to study how the inter-relationship between the logistic strategies developed in Small and Medium-sized Enterprises (SMEs) may be understood to constitute a response to their organizational structures and planning processes. Due to the inter-subjective nature of the situation under study, a multiple case study (Yin, 1994) with qualitative and descriptive characteristics was carried out.

This study was conducted in four companies in the second largest furniture cluster in Brazil. 25 actors in the area of logistics were interviewed at the ownership, directorship, management and operational levels so that the content of the interviews could be compared. Although semi-structured interviews, consisting of pre-defined central themes were used, they were also open to new themes identified during field work.

The technique of Content Analysis (CA) was used to analyze the interviews. This technique attempts to indicate in a plausible manner the hidden elements in human language as well as organizing and making it possible to understand the original meanings expressed in its overt or explicit elements (Bardin, 1977). The use of CA is intended to identify variables, restrictions, motivations, attitudes, beliefs and explicit and implicit tendencies which surround strategic aspects in the area of logistics. In addition to this, CA also makes it possible to uncover ideological aspects which may be present in such mechanisms as directives and principles and which are believed to be found in the underlying aspects of thinking about the subject of company strategies.

The understanding of organizational structure and the centralization of decision-making processes is based on the theoretical model of axes developed by Gersick et al. (2003), especially the axes of changes in ownership and in the company. In order to understand how strategies are developed in a company, the following analytical categories were used: i) formal planning; ii) the participants in the development of

strategic areas; and iii) the path from planning to practice, especially deliberate, reactive and unplanned strategies.

In order to understand the development of logistic strategy, the analyses were also carried out on the basis of explicit, implicit, and silent elements in the statements taken from interviewees and these were used as analytical categories. Generic, underlying elements were identified, that is, elements which constituted the object of analysis for all logistic operations (purchasing, stocking production and distribution) amongst which the following stand out: logistic integration (Landry, 2000), the development of partnerships (Halley & Guilhon, 2004), sharing of information (Cooper, Lambert & Pagh, 1997), and the centralization of decision-making about logistics (Halley & Guilhon, 1997).

After analysing the profile of each of the logistic functions, an attempt was made to make a deeper analysis of the interactions between them in the same case study situation, so that the limitations deriving from external factors or from choices made by the company itself would be interlinked with their effects on the other logistic functions. Finally, the interactions between the logistic operations provided by the companies' strategies were classified with the environmental variables and those which characterised the companies as well as the specific nature attributed to logistics. This analysis was carried out by bringing together the strategic model proposed by Halley & Guilhon (1997) with the logistic operations and their interactions.

4. Characteristics of the Companies Studied

4.1. Company Alpha

Company Alpha was founded in 1964 to produce steel cupboards. According to the company history, there was originally a staff of eight employees producing one cabinet per day. Company Alpha has concentrated on the manufacture of steel kitchen cupboards since it was established and is the market leader in this sector with a range of more than 3500 products.

However, because of its vulnerability to international crises, mainly due to the fact that steel is a raw material that is heavily dependent on the price of such a commodity as iron ore, the company recently decided to enter the market for wooden bedroom and kitchen furniture and at present manufactures a range of approximately 1500 products.

The directors reported that there had been a change in the geographical area constituting Company Alpha's market. This meant that, whereas the company had previously concentrated its sales in large shops and densely populated geographical regions, it had now adopted the strategy of more fragmented sales and was trying to locate customers in new geographical areas in order to increase its market share. It now operates in every region in the country, although significantly less in the South Region, a factor which the directors attribute to competition from local manufacturers. The company concentrates on the C and D class income segments.

The most important managerial change in this company came about as a result of the founder's death in 2005, and since that time it has been managed by his brother. Although control is still in the hands of what may be considered to be the first generation of the family, in this case, represented by the founder's brother, it can be seen that there have been some significant changes, if not in the structure of the organization then at least in the operations of its different departments.

4.2. Company Beta

This company was founded in 1900 by its current director and president. It concentrates exclusively on the manufacture and sales of wooden furniture for dining rooms, including sideboards and display cabinets. When it began business it produced hand-made furniture but after three years the owner decided to begin mass production of dining-room furniture. In 2007, the company was awarded first place in the Brazilian "Top of Mind" awards for this type of product and came second in the ornamental furniture category.

The market for the company's products covers almost all parts of the country, although certain areas are responsible for most of its sales. According to its board of directors, the most important area is the South-West Region, especially the State of Sao Paulo, followed by the State of Minas Gerais. However, the company is strong in the states of the North-East Region, especially Bahia, and also in the South Region of Brazil. The marketing manager stated that it is difficult to classify its products according to social class because of an increase in the purchasing power of poorer sections of the population. Consequently, classification is based on the characteristics of the products themselves and Company Beta therefore defines itself as a manufacturer of "Grade B" or "medium to high" quality products.

4.3. Company Delta

Company Delta has played a very important historical role in the Furniture Cluster in the city of Ubá in the State of Minas Gerais. The grandfather of the current partners began to manufacture furniture there 70 years ago. For raw material, he made use of the wooden boxes that a large distributor from the same city used for packaging goods.

Although the family as a whole had a vocation for producing furniture, the second generation decided to replace some members with professional managers. Thus the father of the current partners and his uncles decided not to establish a single family company and each of the brothers set up his own company. Breaking up the company within one single activity in this way, where each of the brothers from the second generation had his own business, meant that cousins were not included in the transition to the third generation.

After this reorganization some parts of the second generation of the family ended their involvement in furniture manufacture so that the family group in Company Delta was the only part of the family that remained in this activity. Thus, after the owner-

director of Company Delta left as a result of the afore-mentioned professionalization of management, the partnership run by the brothers began.

4.4. Company Gamma

Company Gamma was founded in 1989 to manufacture sofas and armchairs. According to the founder of the company, this sector was chosen because this type of manufacture does not require high initial investment, since it uses mainly manual labor. At the time, the founder was employed as a bank manager and was in constant contact with owners of companies and this allowed him to identify investment opportunities.

Until 2002, Company Gamma concentrated on the manufacture of sofas for Classes C and D. From that year onwards a decision was taken to manufacture for Classes A and B, which was a fundamental change for Company Gamma's survival. This change of sector occurred because it was impossible to find a level of production that would allow operation – at a low cost of production, since there is a tendency for price to be the differential for products purchased by these social classes. In this case, the change of sector made it possible for the owner to operate with the same system of production while obtaining a higher return. Moreover, in the interviewee's opinion, there is also the fact that these customers are less susceptible to financial crises. In geographical terms, the company operates in various Brazilian states, mainly in the Centre-West Region, especially the Federal District and the State of Goiás, and the South-West and North-East Regions, primarily in the States of Bahia and Pernambuco.

5. Case Study Analysis: the Family in the Company and the Strategies

The cases analyzed constitute a scenario in which the family-company relationship is present to a greater or lesser extent. Of the 4 companies studied, the family unit exercises a strong influence in the companies Delta and Gamma. The first company is characterized by a management system that is divided according to functional areas and whose managers are all members of the family - an example of what Gersick et al. (2003) classify as second generation or sibling partnership. It is worth pointing out that this partnership was established after evaluating the ability of each family member, and it therefore shows signs of a process of professionalization of management, even though still centred on the family axis. In family Gama, on the other hand, control of the company is concentrated in the figure of the owner and founder. There is no division of management functions allowing third parties to delegate or define directives other than those dealing with operational matters.

The explanation for this difference may lie in the fact that company Delta has second generation management, whereas company Gama is managed by the head of the family, while, at the same time, the company is undergoing a period of change, in this case, the insertion of the children who will constitute the sibling partnership. As regards company development, the strong influence of the family and the absence of

any functional structure in the management areas places company Gamma at the start-up stage of development. Despite the fact that the family axis is also present in company Delta, it differs from company Gamma in that it has a relatively more professionalized and functionally organized management structure and is, therefore, at the expansion-formalization stage of development.

As regards the two other companies studied – Alpha and Beta – no traces of family management were found but they were both under the centralized control of their owner-controllers and/or founders. Company Alpha has the more professional management system, divided by sectors and without family participation. In company Beta, however, management control is exercised by the owner, but with management divided according to sectors which are strongly under his control. In the case of company Beta, in addition to studying the development of ownership – essentially the figure of the owner-controller – company development was also analyzed, insofar as its organizational characteristics are concerned.

These results allow us to conclude that sub-dividing the firm into functional areas such as marketing, human resources, finance, operations etc., is influenced by the participation of other family members in management of the enterprise and/or the establishment of a mature organizational level. However, the appearance of such functional areas does not ensure the decentralization of the decision-making process, since even when enterprises become mature, entrepreneurs still have a tendency to centralize. On the other hand, the creation of functional areas does not mean that a professional management system has been established. It is only an alternative to involving family members.

It can be seen, therefore, that company Beta has a complex and stable organizational structure which, although it is based on the centralized power of the owner, has decentralized directives at different levels for each of the operational areas coordinated by top management, which situates it at the mature level. A summary of these situations can be seen in Figure 2, where we find the axes of ownership development (centralization of power in the controlling owner or fragmentation among successor generations) and company development (from the start-up stage to maturity) as well as the level of the division of management and centralized decision-making controlled by the family axis.

In addition to organizational structures and family participation in management, the classification of the companies also included investigation of what may be considered the most important guideline that companies refer to in order to think out and program their future activities. Inconsistencies were also found between companies in this regard.

Although divergences were found in connection with the main guideline for future activities, organized medium and long-term planning were found at company Alpha. The interviews showed that planning was based on growth targets and cost reductions established by the Director-President according to medium and long-term time horizons subject to periodic revision. On the other hand, one of the directors indicated that there was planning based on more general factors, namely, SWOT analysis.

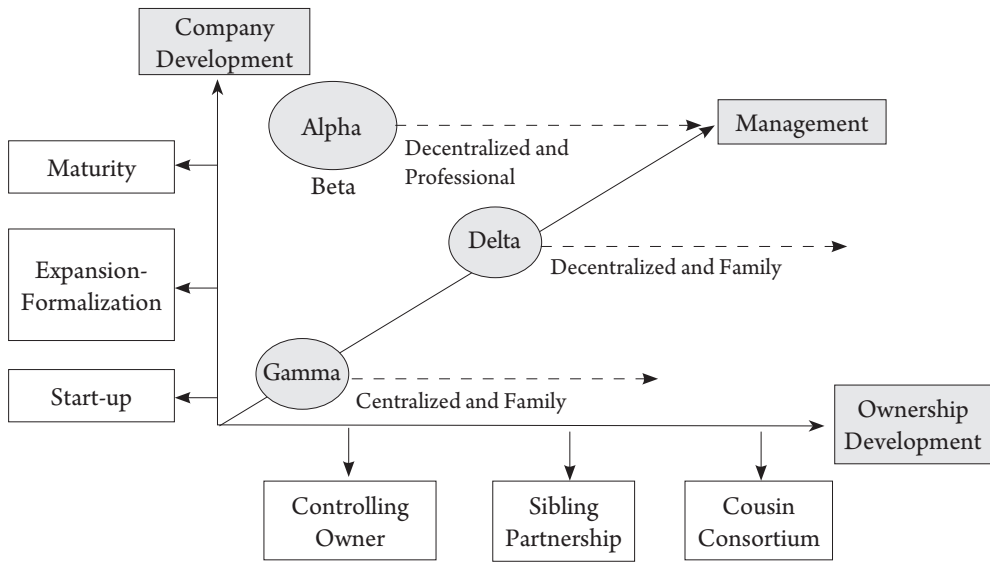


FIGURE 2. Summary of Ownership and Company Development in the Sample

Company Beta made use of formalized and intentional planning in the same way as company Alpha, where growth targets are laid down. What attracts our attention in this case is the fact that these targets were determined by the need to launch new products. This need is almost always put forward by the owner-controller, who centralises and delegates the main directives. These findings from the Beta Enterprise suggest that having a planning process and a subdivided functional management structure is not enough to ensure a democratic decision-making process, because the overall strategizing process is centralized in the entrepreneurs.

Finally, there are companies Delta and Gamma, neither of which make use of formalized planning and, in the same way as company Beta, find it necessary to launch new products as a means of guaranteeing the long life of the company. Although it should be pointed out that this preference may be a requirement for companies operating in their sector (social classes A and B), identification of these needs is not the result of organized market research but derives, instead, from the experience and intuition of the owners and partners of the companies, a common factor in family organizations. The judgments made by these entrepreneurs are not based on market and trade information, but on the quality of the product. Therefore, these products are frequently seen to be the entrepreneurs' own personal creation.

Companies Alpha and Beta were found to have a strong, professional managerial organization and use systematic planning guided by and/or linked to clear medium and long-term growth targets. On the other hand, the companies where the family has a stronger influence have a managerial structure with a lower level of professionalization. When power is highly concentrated in the hands of the owner-controller, both systematic planning and sharing of future directives are lacking.

6. Logistic Strategies in SMEs

The findings from the case studies indicate that the purchasing function is strongly determined by the policies of cooperation with suppliers, by the extent to which decision-making is centralized, by the choices made in other logistic functions and by external factors. Companies Beta and Delta seek to establish policies for relationships with suppliers which aim at obtaining economies of scale from the volume of goods purchased, responsiveness in the delivery of raw materials, storage of raw materials purchased, reductions in lead-times for orders and stability in the price and delivery of raw materials – this last item considered in relation to the quantity demanded by the companies. On the other hand, the lack of a policy for dealing with partnerships creates certain problems for companies Alpha and Gamma, such as low responsiveness on the part of suppliers, resulting in delays in the delivery of materials and variation in the quality of raw materials due to the large number of different suppliers.

“I don’t have access to this planning. (...) If all the suppliers advised the days on which the goods were to be delivered ... if I had a report on what would arrive during the week, I would be able to control things better” (E6 ALFA).

We carry out checks by sampling, it’s impossible to inspect, open various packages right there as they are being unloaded, you do it at random, choose one and take the average and check (...) There are some items that are a problem for quality control. The glass, for example. We work with a type of glass that is used by various suppliers. When there is a problem with the quality, it’s really difficult for you to find out which glass had a problem. There’s no name of the supplier on the glass, there’s nothing. We work with eight suppliers” (E6 ALFA).

Underlying factors indicate that uncertainties, cognitive perceptions and cost reduction policies prevent the approach to partnerships developed by Cooper, Lambert & Pagh (1997). The relationship with suppliers is limited to the companies’ own activities and its scope is not extended to take in development of the whole chain. It can thus be described using the term “short-sightedness of logistic professionals”, taken from Stock (2001).

In the case of company Gamma, the possibility of partnership is prevented by the lack of a manufacturing structure which would allow larger scale purchases. However, in the case of company Alpha, a complex set of factors reduces the possibilities of partnership. The cognitive perceptions resulting from total dependence on steel suppliers reinforces rejection of partnerships. Uncertainty caused by the distance between the company and its suppliers and doubts about their ability to satisfy its demand for large quantities of raw materials forces the company to look for a large number of suppliers as well as choosing them on the basis of the lowest price.

“Our criteria are price and quality. Delivery time as well but price ... we are always ready to deal with new suppliers, even to have a look at price and quality. They have a go at trying

and if it works out alright we keep three at most. But most of the time there are two. Then one leaves, whenever it has a higher price it will be replaced by another one so that we don't increase our range of suppliers much" (E2 ALFA).

In addition to the option to develop partnership, which has an overwhelming impact on the purchasing function, other two aspects are decisive, i.e., resorting to cognitive perceptions – particularly in the centralization of decision-making – and the inconsistency of IS. Purchases are basically made in order to maintain adequate stock levels and in accordance with the placing of orders. However, the cognitive experience of employees and owners is also used to determine both the time and the volume of purchases. This includes sales staff that “anticipates” possible sales of company Alpha, which causes inconsistent placing of orders in company Gamma – along with the IS deficiencies. This is complemented by the fact that the owners of these companies decide on purchase volumes on the basis of previous experience and in a centralized manner.

The lack of reliable information also has an important effect on company Beta, since the contradictions in information flow between stocking and purchasing functions means that, in some cases, deliveries do not take place in the time stipulated by the stocking function, thus disrupting production plans. In regard to the centralization of decision-making, the dominant presence of the owner also influences purchasing decisions in such a way that they are not based on statistical data but on the owner's personal experience, which as pointed out by Halley & Guilhon (1997) is consistent with centralized decision-making.

The inefficiency of IS also has an influence on stock formation in company Alpha and Beta. In the first case, the absence of partnerships with suppliers is associated with gaps in the exchange of information with these suppliers, and, consequently, delivery of materials is unpredictable and higher stock levels need to be maintained as a result.

“Now the main problem that we have with stocks is lack of material. The material doesn't arrive on time or it wasn't ordered on time. The guy from production will be held responsible and the guy from finishing will be held responsible. In the end it always blows up in dispatch where the truck is loaded for the customer. The problem'll blow up there on the day it's loaded” (E3 BETA).

Lastly, it was found that even though company Beta had a policy of establishing partnerships with suppliers, IS was underutilized and this caused delays in deliveries of raw materials. In order to remedy this malfunction, the company opted for higher stock levels of some materials and thus avoided production and delivery delays. Gélinas & Bigras (2004) hold that this interrelationship between the factors underlying the purchase and stocking function, heavily influenced by IS inefficiencies, are critical points which reduce the chances of logistics becoming a competitive advantage for the companies which have these characteristics, due to the fact that inconsistent exchange of information creates limitations to performance in the chain.

Case study analysis of the production function makes it possible to identify three determining factors: lack of formal planning, underutilization of IS and the need to adapt to the environment. The lack of formal planning is the determining factor in the structure of production, since the inefficiency of forecasting mechanisms makes it possible for sales growth to be much higher than that expected by the company.

In company Gamma, however, centralization of decision-making in the hands of the owner means that the other logistic functions are reactive in nature. In this case, the development of new products does not take into account the changes required in the production process so that such changes take place on a day-to-day basis as dictated by immediate necessity. This informality coupled with centralized decision-making also extends to quality control, since this is carried out without parameters or indicators, on the basis of what the owner considers to be ideal for the products.

These days, we have someone in charge in each sector. We hold regular meetings about quality. I have someone in charge of sewing. When the sewing's done, he checks to see if the cover is properly sewn. Before packing, I have an employee who gives the sofa a general check, takes a quick look, sees if the sewing is alright, sees if everything is in order" (E5 GAMA).

Another factor which has an impact on production activities is underutilization of information systems. As a result of this inefficient use of IS, orders are not filled on time by suppliers because of errors in the systems. These problems are made worse by the fact that this lack of information also prevents the purchasing sector from following up on suppliers because they are not able to monitor the production plan and resulting demand for raw materials.

As far as distribution is concerned, all the companies opted for their own transport fleet to make deliveries to stores. Choices regarding transport are permeated by symbolic factors, by lack of confidence, by partnerships and by characteristics intrinsic to this sector which is at the interface between the need to aggregate value by providing a more responsive service and the need to reduce costs.

The symbolic aspect of transport is apparent when companies believe that investing in trucks means company growth. In this case, efficiency is replaced by efficacy where it is held that the vehicle bearing the company logo has to deliver the products irrespective of the financial viability of using the company's own transport.

"Transport is all about vehicles, right?! Buying trucks, building up the fleet ... There's no way to change the work that's done. It's just that, it's making up the loads, choosing the route. Been an increase? Just have to see if the trucks can deal with it. Reducing the time for the round trip is the last resort ... not the last resort, one of the last resorts is to buy more trucks, invest in the fleet. Buying trucks or going for third-party contracts is what we try to avoid. Avoid third-party contracts. We always work with our own fleet" (E1 BETA).

"We are trying to make Beta Company's name more important all the time. If Beta Company becomes more important, then the transport will become more important tool. How? More trucks!" (E1 BETA).

Lack of confidence in partnerships, as well as the need to aggregate value and reduce costs, are interrelated factors which are also involved in transport choices. There is a consensus among the companies studied concerning the use of their own transport and this finding is in agreement with the study carried out by Nonino & Panizzolo (2007) in the Italian furniture sector. This option is the result of lack of confidence in the service provided by third parties, especially that which is entrusted to independent truckers where the occurrence of late deliveries and damage to products are highlighted, when deliveries are shared with other companies. However, this reasoning seems to be only one more result of the lack of confidence, since damage is usually caused by the low level of service quality and not by the fact that freight is shared between different companies.

The companies therefore justify using their own transport on the grounds that it aggregates value to customers when goods are delivered because the level of commitment is greater when this service is performed by the company's own employees. This raises the point as to whether the competence demonstrated in the area of transport is due to the company or to its employees. This exclusivity also demonstrates the companies' lack of prior willingness to form partnerships, since sharing is seen as the cause of late deliveries and damaged products. This contradicts the premise of "supply chain orientation" affirmed by Stock (2001). When questioned about the possibility of transport partnerships, such a possibility is rejected by using arguments about competition between the companies, or else is ignored, giving a clear indication of the lack of initiative in this direction.

"So this guy's got this little transport company there, with four or five trucks, he takes a particular area, puts together goods from all over and delivers them. So, if you work with third party transport companies they'll sometimes mix our goods along with goods from other companies. When they arrive at the customer's, he has to turn the goods inside out to find one item so it causes a lot of problems of ... So, we're going over more and more to our own transport" (E7 DELTA).

A possible solution to this critical situation – the lack of commitment on the part of these truck operators – would be to make exclusive use of specialized transport companies. However, the discussion on this issue shows that transport companies have no interest in providing such a service. The explanation for this lack of interest may lie in the combination between cost and the specificity of the transport service in that these specialized companies possess the means to prevent damage to products but this raises the cost of transport. There is also the aggravating factor that the volume of the products is large and this reduces the number of units that can be moved at any one time, thus raising the unit freight costs. This means that the low level of interest displayed by both the transporters and the companies may be due to the need to combine cost reductions with the specific requirements of transporting furniture. Transport companies will only find this prospect attractive when they feel that there are opportunities for economies of scale. In this case, the concept of cluster is not extended to transport or logistics.

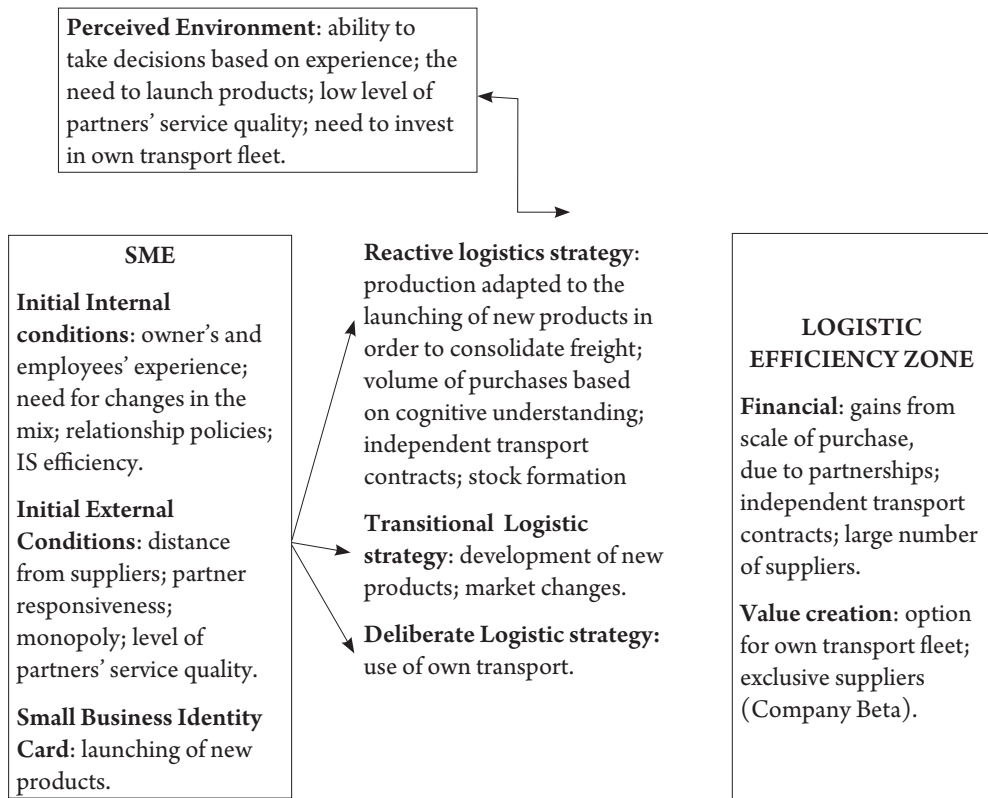
The choices made by companies are almost always permeated by the efficiency (costs) versus responsiveness (quality of service) dichotomy. Although the literature points out the need for strategic positioning at one or other extreme in order to bring about differentiation, this dichotomy does not extend to the whole chain in such a way as to allow consolidation of a wider and more sustainable differential. Even more serious than this point is the fact that it has already been removed from the very internal organization of logistic activities, given that purchasing strategies are based on efficiency, and strategies of distribution responsiveness. In the opinion of Chopra & Meindl (2003), combinations of efficiency and responsiveness are beneficial, as long as they are distributed in a balanced manner among all logistic activities and the links of the chain, which is different from the situation in the companies studied in this research, where the strategic alignment recommended in the literature is nowhere to be found.

The inter-relationship between logistic functions, heavily influenced by internal and external factors and those deriving from the organizational structure itself, can be identified in the model put forward by Halley & Guilhon (1997). Thus, depending on management perception of the above-mentioned factors, logistic strategies, which may be reactive, deliberate or transitional, are adopted and logistic efficiency is determined, based on cost, on organization or value creation.

Figure 3 shows a summary of these relationships based on the analysis of the case studies. On the one hand there are the internal conditions, amongst which the use of the owners' and employees' experience, the need for changes in the mix (as in the case of Company Alpha), and relationship and efficiency policies for IS are prominent. These elements interact, on the other hand, with external factors, amongst which distance from suppliers, partners' (high or low) responsiveness and levels of service quality and monopolistic situations stand out. The identity of SMEs forms the background for these issues which, except for Company Alpha, lies in the launching of products.

The interaction between this set of factors has led analysts – be they owners or professional managers – to a specific understanding of the environment which, in the case of the companies studied here, can be summed up by the ability to make decisions on the basis of experience, by the need to launch new products, by partners' low level of service quality and by the need for companies to invest in their own transport fleet. Logistic strategies, which may be reactive, deliberate or transitional, derive from these perceptions.

The need to launch new products leads to reactive production strategies as well as to the transitions whereby new product launches are permanent. Cognitive understanding makes it possible to plan purchasing and stock formation. Monopolistic relationships lead to the widening of the product mix and market changes. Finally, there is the low level of service quality provided by third party transport companies and the perception that it is necessary to own the transport company, all of which lead the company to develop deliberate or reactive strategies which prioritize consolidation of freight loads and transport efficiency.



Source: Research Data

FIGURE 3: Summary of the Logistic Strategy Model used in the Case Studies.

Zones of efficiency reflect strategic contradictions in relation to companies' positioning in the chain and can be classified into cost and value creation types, where each one predominates in specific functions. The cost zone of efficiency is achieved in the purchasing function specifically by means of economies of scale due to partnerships and the large number of suppliers where the choice is made on the basis of least cost. Cost efficiency can also be found in the transport function, mainly by the use of third party contracts.

Logistic effectiveness as a factor in the creation of value is mainly found in transport, principally in a company's option to own its own haulage company. Companies report aggregating value as a result of this choice, since they avoid the late deliveries and damage to products that commonly occur when third party companies are used.

Although elements of logistic strategies have been identified, as in the case of companies choosing to own their own haulage company, it is necessary to point out that logistic strategies are predominantly reactive. In general, they are preceded by the need to launch new products and, although the contribution of the integrated chain to the development of new products is recognised in the literature, there is no alignment with

partners and between internal logistic activities that would intensify new product launches. In addition to this, the lack of intra and inter-organizational integration and alignment diminishes the strategic nature of logistics so that, even in the companies which have formal planning, logistic decisions are postponed and internally inconsistent.

7. Conclusions

The findings lead to the conclusion that there is an interrelationship between family participation in company management, its organizational structures, centralization of decision-making processes and the formalization of planning, which result in deliberate and unplanned strategies. However, the strategic nature of logistics is not interrelated with these elements, since, irrespective of the degree of formalization of planning, of centralization in decision-making and of the types of strategy, logistics has taken on a reactive role - strictly operational and not strategic.

We can conclude that the development of organizational structures is interrelated with family participation in company management. Those companies where there is greater participation do not have segmented organizational structures, except in the case of Company Delta, due to the fact that it is managed by a sibling partnership. On the other hand, companies in which there is a low rate of family participation have decentralized and professional organizational management structures and managers have no family relationship to the owner-founder. We believe that this situation may be explained by the fact that there is reluctance to implement a professional management system because the existence of family relationships and emotional bonds between family members is considered sufficient to assure commitment to the organization.

As regards the way in which Gersick et al. (2003) hold that the development of ownership and company takes place, it was found that the decentralization of decision-making processes is interrelated with family participation as well as with the development of the company. The companies which have gone through the stage of maturity also have professional, decentralized management, which ensures a balance between company and ownership development.

However, in companies which have greater family participation, decision-making lies with the owner or the other family members. In such cases, both the expansion-formalization stage, characterized by efforts to professionalize management, albeit with family participation in sibling partnerships, and also the start-up stage were found. In the company that has gone through the latter stage, all decision-making is centralized in the owner-founder, who is already in the process of preparing his children to succeed him.

The composition of management in these companies is also interrelated with the creation of global strategies and the formalization of planning. The companies which have more professional management have formal planning and deliberate global strategies, guided by positioning and growth. In the case of the companies where family participation is more intense, the strategies are reactive and unplanned, principally as

regards understanding the need to launch new products and the issues which appear during the company's routine activities as a result of the experience acquired by the company owners.

The development of logistic strategies in the companies studied is not dependent on their structures, their decision-making processes or their global strategies but, instead, is a response to other factors. The main factor underlying this response is the lack of confidence in the links in the chain, which is particularly strong in the purchasing and distribution functions. The purchasing strategies oscillate between working with exclusive suppliers or with a number of suppliers and, in both cases, the search for efficiency at the lowest cost predominates.

However, this search for efficiency fails to consider total costs, since these include trade-offs and interrelationships between costs of different logistic activities. Trade-offs take place from the moment when, for example, the choice to work with a specific number of suppliers produces other costs, such as delivery delays and variation in the quality of materials, the need for high stock safety levels and so on. Even in the case of partnerships, it is found that these do not have the purpose of developing the chain but instead are aimed at creating advantages whose effects are limited to each company, thus constituting logistic short-sightedness.

As regards distribution, there are strong feelings of mistrust between the links in the chain in the area of transport of products. The option to invest in company ownership of the transport fleet predominates in all the companies studied. The arguments in support of this choice have to do with responsiveness and creation of value at the time of delivery, since it is reported that third party contractors do not have any commitment. However, the choice of independent truckers to the detriment of transport companies, to a certain extent, means maintaining control over these activities, given the small size of those who provide this service. In addition to this, we may include in this scenario avoidance and rejection of partnerships between the cluster companies. This is sometimes justified by the competition between them, which excludes the possibility of competition between chains, and at other times by the lack of initiative on the part of the companies themselves. Thus, the responsibility for the lack of commitment toward partnerships is placed on the companies themselves.

In addition to there not being any widening of the scope of logistics towards an integrated supply chain approach, with shared planning, logistic strategies possess a number of contradictions. Although there is no dichotomy between efficiency and responsiveness, we conclude that the strategies adopted by the separate logistic functions include efficiency in purchasing and responsiveness in distribution, thus causing a strategic misalignment that prevents the consolidation of any competitive differential, especially in view of the fact that these strategies are not shared within the chain.

A plausible alternative to the strategic nature of logistics is the formalisation of planning in SMEs but our findings indicate that the degree to which strategies are formalised does not affect logistic strategy. Companies which do not adopt formalized

global planning and strategies are characterised by reactive logistics, which, in the majority of cases, is guided by daily decisions taken on the basis of the owner-founder's or partners' cognitive understanding. In the cases where the planning and strategies are formalized, the reactive nature of logistics also predominates and is conditioned by the launching of new products and the needs which emerge as a result of the company's growth.

The reactive nature of logistics strategies can also be found when analysed in the light of the model proposed by Halley and Guilhon (1997). In this case, the reactive strategies derive from an analysis of endogenous and exogenous variables that is heavily based on the experiences of decision-makers. This is accompanied by a lack of partnerships and produces specific decisions that are limited in scope and adjustments that are nearly always guided by a type of logistic efficiency based on cost, but which does not take into consideration the total cost, as previously mentioned.

The importance of incorporating theoretical approaches which deal with the development of strategy in areas other than family companies should be emphasized as a suggestion for future research. Studies of the same type carried out in other countries are also important in order to make it possible to compare results and, thus construct a more robust model of logistic strategy in SMEs. Studies of companies in other sectors are also recommended in order to widen understanding of logistics in SMEs, since the characteristics of raw materials supply and the production, stocking and distribution process tend to be different and would make an extraordinarily important contribution to the understanding of the development of logistic strategies in SMEs.

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