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PRODUCTIVE AGGLOMERATIONS OF SUPPLIERS IN THE AUTOMOTIVE INDUSTRY: A WAY TO MAXIMIZE COMPETITIVENESS IN SUPPLY CHAIN MANAGEMENT

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Abstract

The objective of this paper is to identify how the automotive industries maximize the competitiveness in supply chain management through the constitution of entrepreneurial productive agglomerations of suppliers. For this purpose, an applied research was carried out, and the technical procedure utilized was bibliographic review based in some researches about Brazilian industrial condominiums. Thus, through the constitution of entrepreneurial agglomerations of suppliers in automotive industry it is possible to obtain logistic advantages in the transporting, stocking and warehousing activities. Besides, it is possible to maximize the supply chain management competitiveness through the establishment of trust and lasting relationships between the components of the whole chain.

Keywords: *entrepreneurial productive agglomerations; suppliers; supply chain management; logistics.*

1. Introduction

Due to the tough competition that companies face with the globalization of markets, it was necessary the search for new alternatives that would enable their surviving in the market. Among those alternatives, it is mentioned the structuring of agglomerations of companies, whose formation is based on the geographic vicinity and common interests.

Other important factor, which is becoming more and more evident in the business environment nowadays, is the supply chain management concept, that is based on the integration of all logistics activities, since the inputs

purchasing from the suppliers until its delivery to final customer, involved by information systems that provide the necessary support. The supply chain management involves the enterprise process and also the relationship with customers and suppliers, aiming at strategic partnerships, which benefit all the members in the chain. The proximity proportioned by agglomerations of suppliers near car automakers optimizes the supply chain management, reducing the costs and maximizing the profitability in all links, in a "gain-gain relationship".

Geographic and sectorial agglomerations have been studied abroad as well as in Brazil in the past decades. Those so called agglomerations bring many advantages for companies inside them, such as: growth in productivity on

the companies based on the area due to a better access to employees and suppliers, access to specialized information, complementarity, access to institutions and public goods, better motivation and measurement in local rivalry, innovation, news business formation, and others (PORTER, 1998). Besides all these advantages, it is also possible to obtain cost reduction through logistics management of key-activities in agglomerations of suppliers such as costs with stocks, warehousing and transport.

The importance of agglomerations of companies to explain industrial development was firstly discussed by Alfred Marshall by the end of the nineteenth century. The dominant concept was not, at that time, the one of external economies – factors that explains the advantage of a cluster – but one of economy of scale. Authors, like Alfred Chandler (1990), emphasized the advantages of big corporations, vertically integrated, that could reach economies of scale and scope (MEYER-STAMER; HARMES-LIEDTKE, 2005). Today it is clear that the clusters play a fundamental role in the economic, social and technological development of a region, benefiting all the companies engaged around it.

The supply chain management, for Wanke (2003), is a challenge that the companies have been chasing 80 years. The automotive industry is precursor in the attempt of developing this concept. Since Henry Ford in the occasion of the First World War with total integration of its supply sources, and passing by Alfred Sloan in the 30's decade, and by Toyota in 40 to 70's decades, until the recent experience with the introduction of the concept of industrial condominium by General Motors in Gravataí – RS, Brazil and of Modular Consortium in Resende – RJ, the concept of supply chain management has faced several transformations, including the agglomeration strategy as a solution for the integration between chain members.

The Brazilian automotive chain, according to information extracted from ANFAVEA – Auto motors Vehicle Manufacturer National Association, including vehicles, auto parts and agricultural machines, it combines seventeen trademarks and shelters the principal world groups of the sector, including North-Americans, Europeans and Asians. It is responsible by 4,5% of GDP (Gross Domestic Product) and by 13,5% of its industrial GDP.

Considering these factors, the necessity of study arises: how the automotive industry maximizes the competitiveness in the supply chain management through the constitution of a entrepreneurial agglomerations of suppliers?

Through an agglomeration of suppliers in the automotive industry it is possible to obtain logistics advantages in transporting, stocking and warehousing activities, beyond the supply chain management optimization through the establishment of lasting and reliable relationships between all the members in the chain.

This way, it is also possible to obtain sustainable competitive advantages in all links of the automotive industry supply chain, increasing its profitability and improving logistics service.

2. Entrepreneurial productive agglomerations of companies

Around 1800, the French Economist Jean Bastist Say used the term entrepreneurship in his book “A Treatise on Political Economy” and defined the entrepreneur as the responsible to: uniting all the production factors and discovering the value of products the reorganization of all capital he invests - the wage figures, the surplus, the renting he pays, as well as the revenues that belong to him (CRUZ, 2005).

Adam Smith characterized the entrepreneur as a capitalist owner and manager, acting between the worker and consumer. His conception of an entrepreneur, a general tendency of the time, was of one who only aimed at revenues. Alfred Marshall characterized him as someone who would adventure himself, taking risks uniting capital and work, required by his business and supervising it in details (CRUZ, 2005).

Contemporarily, Peter Drucker (1987) stated that the innovation is the specific instrument of entrepreneurs, the means by which they exploit changes as an opportunity to a new business or different service. Yet, the concept of entrepreneurship can be visualized in several perspectives: personal, business, organizational, educational and academic, among others (CRUZ, 2005).

According to Dolabela (1999, p.45), the entrepreneur evolves through an interactive process of attempt and error; he advances due to discoveries he makes, which may be related to an infinite quantity of elements, such as new opportunities, new forms of commercialization, sales, technology, management etc. Thus, entrepreneurship should conduct to economic development, generating and distributing wealth and benefits to society.

Due to the sudden and constant changes in the business world, companies needed entrepreneurial attitudes, in order to survive on the market and maximize their productiveness and competitiveness. One of the alternatives was to join other companies seeking conjoint growth, possible to be obtained through entrepreneurial productive agglomerations.

Productive agglomerations of companies are based on geographic vicinity and common interests of the members. The companies in the agglomeration are more probable to obtain several advantages those alone they could not. Among the advantages, it is pointed out the cost reduction with logistics activities.

The last century's idea was that a company was excellent if it was big. Such concept came down the earth

when three giants were near a collapse. IBM, GM and Sears had to downsize by diminishing the number of its workforce, cutting hundreds of thousand jobs (IBM cut 180.000 jobs, GM 200.000 jobs, and Sears 50.000) (FARREL, p. 26, 2001).

According to Porter (1998), the competitive capacity generated by those geographical concentrations of enterprises and institutions, interconnected in a specific area, is a paradox for a globalized world, since the necessary advantages in a global economy are increasingly linked to local aspects, such as knowledge, relationship and motivation. And it is this capacity to generate informal and non planned mechanisms of communication that the geographic proximity allows to develop (BOARI; PRESUTTI, 2004).

Relationship between members is one of the principal premise of agglomeration and involves: internal relationship (with clients, suppliers, rivals); relationship with external environment (government, universities, research institutes); and last, but not least, the information exchanging (fairs, meetings, publications, patents).

As a consequence of the development of this social capital, these agglomerations present characteristics (PORTER, 1998) that make them extremely competitive, such as:

- access to specialized information,
- complementarities between companies,
- improved productivity,
- facilitated access to suppliers and specialized employees,
- more effective contact with supporting institutions,
- easier access to public resources,
- simpler way to benchmark, and
- larger opportunities to generate innovation .

As the president of the Applied Economics Research Institute (IPEA), Mr. Arbix (2005) exposes, "In the past, the focus of the public policies was the formation of big enterprises. The policies to foment small companies had a character of assistance". This means, the small companies were left behind and its development was planned. Only from the 70 and 80 decades, those companies begin to draw attention through productive agglomerations, which would provide the conjoint growth of its participating members.

In the world of "big is beautiful", small business was relegated to those who were unable to pursue a career in a brilliant multinational corporation. "Being an entrepreneur was almost a dirty word in a polite society – an avenue reserved for shysters and get-rich-quick types."(FARREL, p. 26, 2001).

Therefore, the discussion on clusters became more important, so much in the academic as well as in the economic development view, with the publication of "Competitive Advantage of Nations", by Michael Porter

(1990), which emphasized the importance of clusters for industrial development (MEYER-STAMER; HARMES-LIEDTKE, 2005).

A form of risk reduction, regarding business and not isolated factories, is the constitution of quantitative alliance between companies. Currently, it is more advantageous to have a well conceived business than a well projected factory. It is increasingly more important an agile and flexible manufacturing due to changes and evolution on the business market (CASAROTTO, 2001).

The authors Cario and Nicolau Scheffer (2005), state that the presence of producers, suppliers and customers in the same place allows the development of conjoint actions aimed at common objectives. Such actions provide a perceptible increase in the quality of products, optimizing the distribution means and the market practices, furthermore promoting the competitive development of local companies.

Cassiolato and Szapiro (2003, p.1) state that:

The concept of agglomeration itself became more articulated. An important step in this direction was the linkage of the agglomeration idea with the "nets", especially in the supply chain context and around of "anchor" companies. Based on the Japanese and the Third Italy experiences, the cooperation between agents, along with the productive chain, started to stand out, more and more, as a fundamental element in the competitiveness more and more.

Casarotto (2001) states that there are two kinds of net: top down nets, in which a small company can be the supplier of a leader company or, mainly, a sub-supplier. It is a net in which the supplier is highly dependent of the leader company strategies and has little or no flexibility or power of influence in the net's destiny. This model is also known as the Japanese model, which is utilized in automotive industries, where there is union of all companies, following a leadership, synchronization, divergences negation and conflicts prevention.

The second kind of net, according to Casarotto (2001), presents great flexibility of small companies. This kind of net has been the base of highly developed economies. In this case, the companies are united by a consortium with broad or restrict objectives, in the consortium of product formation. Thus, several companies can produce equipment parts and these products are traded, promoted and technically assisted by the consortium. This consortium simulate the administration of a great company, but have more flexibility to attend differentiated requests, and have as objective to aggregate great value to the product or service.

The agglomeration of automotive industry is characterized by top down nets, where the car automakers are in charge of the leadership and the systemists suppliers

and sub-suppliers follow the car automakers policies. The coordination of this chain is performed by car automakers and the product development, the production of systems, as well as assembling, are activities performed by the suppliers. Thus, is possible to aggregate great value to final product, enabling the car automakers to be specialized in its core competence.

3. Automotive industry supply chain management

The supply chain management concept evolves from the enterprise logistics, and currently is viewed as a strategy, grasping from raw material purchasing until the final product delivery to customers. Its purpose is to aggregate value, surpassing final consumers' expectations. Therefore, it is necessary trust relationships development with suppliers and customers.

Most of traditional companies are organized in a functional base, that is, they present a clear division of its activities and responsibilities, where each activity aims at reaching its objectives individually. Thus, the structure normally found is the company division into request

processing, planning and production control, purchasing or supplying, production, packaging, handling, warehousing, stocking and distribution, among others. In order to manage these activities, there are specific managers who are directly responsible for the success or failure in the performance of these functions. There is the vertical view of the company.

The supply chain management concept, or integrated logistics management, according to Christopher (1997), is understood as the management and coordination of the information and material flows between the source and the users, just like a system, of integrated form. The linkage between each phase of the process, as the products and materials move in towards the customer, is based on the optimization, that is, the maximization of service to the client, while the costs are reduced and the actives are kept in the logistics flow.

In order to corroborate with this concept, Chopra & Meindl (2003), states that the objective of all supply chain is the maximization of the global value generated. The value generated by the supply chain is the difference between the final product value for the customer and the effort carried out by supply chain in order to attend the customer request. In another way:

$$GVG=FPV-SCP$$

Where:

- GVG → global value generated
- FPV → final product value
- SCP → supply chain performance

The supply chain management, according to Wanke (2003), is a more complex task than logistics management of the products, services and information flow, related to the source point through the consumption point.

The supply chain management involves, beyond the management of activities in an integrated form, strategies of relationships with customers and suppliers, aiming at a great durability in the business, through partnerships based on trust and cooperation, which generate competitive advantages. Many companies have discovered that, through these partnerships, it is possible to improve the product project, marketing strategies and service to customer and last, but not least, to discover efficient forms of working together.

Chopra & Meindl (2003), point out that essential in a supply chain is the information exchanging between manufacturers and suppliers, mainly regarding information about demand, thus enabling the manufacturer to avoid or reduce the storage level. Informing its suppliers in real time

about the demand makes possible the fast request of raw material attending, without delaying production and avoiding stock.

Therefore, all the supply chain links aim to reach a situation that benefit everyone, and where there are opportunities of conjoint growth, which consequently increases the logistics service level, aggregating value to final product, clearly perceptible to customers, increasing the chain profitability.

According to "The Global Supply Chain Forum", the supply chain management consists in the integration of key-processes since final customer until raw material producer. The SCM (Supply Chain Management) involve several areas, such as demand prediction, purchasing, production, distribution, stocks and transports, interacting in the strategic, tactical and operational perspectives. The SCM also involves the coordination of information, material and financial flows between multiple companies

(PYKE e JOHNSON, 2003, *apud* BADIN, NOVAES & DUTRA, 2003).

The activities that generate higher costs are the key-activities. Among them, the stocks administration and transports, which absorb from one to two fractions of total costs with logistics. Therefore, it is very important to carefully manage these activities in order to reduce costs and optimize processes. The agglomerations of companies make these objectives possible to be reach.

Certainly, when the company maintains high level of stocks in order to fully attend market demands, it is necessary a great amount of capital, beyond high costs with its maintenance. However, low level of stocks can cause costs of difficult measurement on face of delivering delay, the re-planning of productive process and customer dissatisfaction, and even the loss of customers.

The transport activity influences directly the level of services to customers, for if all the activities, beginning with the raw material purchasing and ending with the delivery of the final product, are well managed in an integrated way, however if there is a delay in the delivering, or if the product is damaged during the transport, there will be a negative impact in the corporative image of the company.

The companies currently dedicate great amount of time searching means to differentiate its services and products from the products and services of the rivals. To Ballou (2001), when the high direction of companies perceive that the supply chain management concept affects directly the company costs and the customers service level, the company may use this concept as an effective strategy to gain new markets and maximize its profitability.

The supply chain of the automotive sector - constituted of car automakers, suppliers, retailers and final customer - have been going through profound changes and actually it is a world trend that the car automakers focus on the production conception stages, planning and final assembly of the components systems delivered, delegating to other supply chain members the rest of the activities. It is important to emphasize that the industrial process development in the Latin-American countries occurred in a completely different environment when compared to Central European countries. These processes were built by foreigner industries, and it was mainly developed in Argentina, Brazil and Mexico.

According to Scavarda et. Al. (2001), until the 90s, the Brazilian automotive industry adopted several strategies for expansion. From the 50s until the 80s, the economic policies inhibited the importation, stimulating the local plants establishment of the Completely Built Up (CBU) vehicles by European and American car automakers. Due to crescent vehicle importation, the government established policies that progressively limited the importation of components, of completely built up (CBU) and Completely Knocked Down (CKD) vehicles. In the 70s

decade the processes nationalization reached 100% in countries like Brazil.

The profound transformations occurred in the 90s affected most of the Latin-American countries. The implementation of economic reforms, which stabilized and opened its economies and its specific governmental policies, as well as trade agreements, were the politic and economic bases for a new structuring in the regional automotive industries. These measurements contributed with the creation of new environmental factors, such as the domestic market increasing, the consolidation of trade areas like Mercosul (South America Common Market) and NAFTA (North American Free Trade Association) and the industrial modernization of some countries, necessary conditions for production of world class vehicles (SCAVARDA, et al., 2000, *apud* SCAVARDA et al., 2001).

In research carried out by Scavarda & Hamacher (2000), it was identified some troubles to be overcome in supply chain management in the Brazilian automotive industries. Most of these troubles depend on the vehicle industries that should detect the faults and search for ways to minimize them. According to Lima & Zawislak (2001), this is the way to apply the concepts of lean production, acting in the organization and in the production management inside the company, benefiting the whole supply chain. The results obtained reflect in the reduction of the time amount spent in production, intermediary stocks and production wastes that impact directly in the supply capability and in the enterprise flexibility, being considered key factors of competitiveness inside the supply chain.

Badin, Novaes and Dutra (2003), states that, in order to implement and effective supply chain integration in the automotive industry, it is essential to establish partnership with suppliers, incorporating them in the initial stages of the product development process. By doing this, the suppliers will have more opportunities to participate in the product specification, anticipating future troubles, and dividing responsibilities in the product development, designing, production and distribution.

4. Methodology

It was carried out an applied research that, according to Silva & Menezes (2001), has as objective to generate knowledge for practical application, aimed at the solution of specific quotidian problems. It involves local verities and interests. The research is also exploratory, since it allows good knowledge about the problem, through bibliographic researches and case study.

With the objective of clarifying this paper, it will be presented in this topic the Brazilian industrial condominiums. Once the paper is a bibliographic review, the principal points approached in this paper, that subsidize the theory presented previously, were extracted from some

researches, confirming that the constitution of entrepreneurial productive agglomerations of suppliers, like industrial condominiums, enables the optimization of the supply chain management of the automotive industry, therefore favoring all the components of the chain that may obtain logistics advantages, mainly in warehousing, stocks and transports activities.

5. The Brazilian industrial condominiums

According to Graziadio (2004), since the final 90's, the automotive industry assimilated a new concept: the modular strategy (MS) that causes changes in production and business organization. In the vehicle industries perspective, the modular strategy is a way to reduce production costs. It is also a "conceptual package" that drives to creation of new forms of organizing vehicle production and relationships with suppliers through redistribution of the value aggregation in supply chain. The best way for reach this, is the constitution of entrepreneurial productive agglomerations of suppliers, reducing distance and lead-time between supply and assembly.

The modular strategy (MS) is responsible for supplying the vehicle assembly with complete modules (not with loose parts anymore) that are delivered in the exact moment of the assembling. This surmises the previous preparation of the modules (pre-assembly), a process that can be carried out by vehicle industry or by suppliers installed close to the final assembly. In the suppliers' perspective, MS means to now carry out production activities there were performed by the vehicle industry or, simply to supply complete systems instead of loose parts.

In some cases, the systemist supplier develops the components of the system, but the systemists' action in the product design is still smaller than in production. In order to attend the car automaker demand, which means delivering the modules right in the utilization point, the systemists suppliers are installed as closest as possible to final assembly and thus originating the productive arrangements, like an industrial condominium and a modular consortium, where the car automaker and suppliers share the activities involved in the vehicle production. The central idea of this strategy is modularity and externalization (GRAZIADIO, 2004).

Mercosul and the president of GM-Brazil, Ray Young (extracted from the site of GM in 2005), states: "The GM complex in Gravataí was transformed in these last five years into a true technological reference for the automotive industry world, especially by the innovator concept of the systemists suppliers, that operate around the factory and supply directly the Chevrolet Celta assembly with systems and subsystems".

Besides GM/RS in Gravataí, there are several other modular plants in Brazil, for instance: VW/RJ (pioneer

experience), Daimler Chrysler/MG, Renault/PR, VW-Audi/PR e FORD/BA. Due to those productive arrangements, Brazil is considered a development center and strategy test. The modular supply is still a novelty for many automotive components suppliers in Brazil, except the one linked to global suppliers, with acknowledged experience by car automakers.

According to Pires (2004), several automotive plants established in Brazil, adopt the condominiums logic, mainly regarding to relationship with suppliers, maintaining a select group of suppliers called "systemists". Thus, the car automakers don't leave of assembling its cars, in other hand, the systemists don't need maintain its actives with exclusive dedication to attend car automakers.

Chiarello (2005), states that in VW – Audi/PR condominium, the agglomeration of suppliers near car automaker provide advantages as: supply guarantee; short distance; reduced costs with transports, stocks, goods handling and warehousing; immediate response in alterations and greater flexibility in conflicts resolution.

The activities related to stock and consequently warehousing, as previously quoted, absorbs the greater share of the supply chain total logistics costs, due to obsolescence, deterioration, maintenance costs and framework, besides the immobilized capital in stocks that company could invest in other sectors of the chain.

In VW – Audi/PR condominium, the ownership is of the car automaker, that rent the space for 13 systemists suppliers. These suppliers are ownership of resources utilized inside of its installations. The fixed costs are shared, proportionally, between suppliers participants of condominium. Besides 13 systemists suppliers, other 140 suppliers act of direct form in the plant, and the supply logistics, is administered by a logistics operator, due to big amount of components from São Paulo State. The systemists supply the assembly with a frequency of two hours or less, following the production programming, received by EDI - Eletronic Data Interchange. (CHIARELLO, 2005)

Although, according to Graziadio (2004), the supply chain simplification idea, searched by car automakers through the reduction of the base of direct suppliers, not always is possible for several reasons. For instance, the complexity of the suppliers management is not eliminated, but transferred to systemists suppliers, to which is delegated the function of dealing with suppliers and coordinating the products and quality of services, like logistics. The frequent occurrence of troubles (like defects, deals and price increases) has contributed to the maintenance of car automaker in the coordination of the chain.

Based on these factors, in the present context, the companies aim to produce according to the demand, which means producing with minimum level of stocks and, based on lean production principles, the car automakers wants to

receive the systems in assembly point where they will be used and at the exact moment of its utilization (Just in Time - JIT). In GM-Gravataí condominium, when there is differentiation in final assembly, that is, the systems content changes according to the car model to be built up, the delivery is in sequence, besides being exact and at the point and moment of using (Just in sequence-JIS).

In both modalities, the main idea is avoiding stocks in assembling, but not always things happen this way. There are suppliers that deliver components and systems in “delivery windows”, that is, in time and frequency determined by the vehicle industry.

The supply chain management trend is to try to adequate to Japanese philosophy, which is not the one of pushing stocks to supplier, eliminating them of the vehicle industry, but eliminating stocks from all the chains, aiming to definitely reduce the costs, benefiting all the components and maximizing the profitability.

The internal and external logistics process in GM - Gravataí plant are carried out by logistics operator, that collects the materials from systemists suppliers through milk run system and deliver them in the sequence and previously established points aside the principal assembly in vehicle industry.

For the material that comes from external suppliers, the milk run system and the direct line haul system (transport system dedicated, feasible for big amounts and without warehousing intermediary process and neither cross docking) are used, in case of the motors and transmissions produced by vehicle industry in São José dos Campos' plant (PIRES, 2004). Thus, besides reducing costs with transport, maximizing the vehicle utilization and minimizing the time expended, it reduces the stocks in all chain links, once the stocks go out from suppliers and are delivery for vehicle industry it the exact moment of the manufacturing.

As well as GM, according to the text extracted from FORD's web site in 2005, an industrial condominium was created by FORD in Camaçari - BA, where it is produced derivatives from the same platform, utilizing the modular assembly and externalization.

According to the director of the company, the condominium guarantees more flexibility, quality and cost reduction, besides accelerating the response time to customers demand. The logistics costs are reduced diminishing distance wastes and delay in parts delivery. The condominium costs, including the maintenance and logistics costs, are divided between FORD and the systemists suppliers, selected by technological and financial capacity (some of them are also in GM condominium, like: Pelzer, Lear, Arvin and Valeo). Another similarity with Gravataí is that the final assembly is carried out by vehicle industry, differently from the VW/RJ plant, where the suppliers assemble the vehicles.

The industrial condominium, according to Graziadio research (2004), allows the car automaker to externalize the productive activities and maintain a link with the production of components. It reduces the risk of losing control on production process. In summary, this modular strategy involves less plant assembly framework, the re-structuring of value chain through of distribution of those activities that does not aggregate value, reduced costs with production, stocks and administration.

By this way, the constitution of entrepreneurial productive agglomerations of suppliers in a industrial condominium provide indirect gains, like smaller lead time, less parts handling, transport and packaging optimization and greater number of skilled suppliers. It is interesting to point out that, when the suppliers are skilled, they become “technologically” close to car automaker.

6. Final considerations

The automotive industries are continuously in search of solutions to manage the supply chain successfully, aiming to obtain competitive advantages, what is one of the biggest challenges. In order to overcome difficulties, companies had to adopt entrepreneurial attitudes, and among them it may be pointed out the entrepreneurial agglomerations of suppliers, resulting in gain for all those participating in the chain.

Some initiatives have been inserted in Brazilian industries, for instance, the suppliers' partnerships, based on mutual trust and growth. One of the world trends is the car automakers coordinate this chain, while suppliers work in product development and in process execution of car assembly.

One of the easiest ways to coordinate the supply chain is the agglomeration of suppliers. Thus, due to the proximity of the companies, there are opportunities to conjoint growth and problem solving.

Currently, the automotive industry is the representative segment of the industrial sector, and it is one of the principal sources of benefits and employment in Brazil. Still, according to information extracted from ANFAVEA, the total investments of car automakers and its suppliers are around 27 billion dollars. Despite several economic crises, one of the most difficult hurdles for growth, the sector still presents a constant evolution.

The automotive industry supply chain involves car automakers, suppliers, retailers (distributors and resale) and final customer. Due to the complexity in operations and the big existing number of auto parts and components, it is more than necessary to be successful in managing the supply chain, mainly regarding to logistics cost reduction and integration of all links that constitutes the chain.

One of the alternatives found are the productive agglomerations of companies, that is, the geographic vicinity of the suppliers and sub-suppliers to car

automakers, therefore facilitating the coordination of the supply chain and reducing costs with transport, warehousing and stocks maintenance activities, besides optimizing the establishment lasting relationships of trust between the all chain components.

In face of all what was exposed, it is possible that suppliers and vehicle industry may grow conjointly, providing its survival in the market where, due to hard competition, probably isolated companies would not have the same conditions. With these initiatives, as in the industrial condominium in Gravataí – RS, it is perfectly possible to visualize the success of supply chain management and logistics advantages obtained, which gives support to the sustainable competitive advantage in business environment.

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