

# **SUPPLY CHAIN MANAGEMENT AS A STRATEGIC FACTOR FOR THE COMPETITIVENESS AND SUSTAINABILITY OF ORGANIZATIONS: THE IMPORTANCE OF THE SUPPLY CHAIN FOR COMPANIES' COMPETITIVE STRATEGY**

Jerry Antonio Raitz Maier<sup>14</sup>  
Hugo Silva Ferreira  
Anderson Augusto de Oliveira

## **SUMMARY**

This paper aims to present a study on the different theories that define Supply Chain Management as a strategic factor and its importance for the activities developed in a sustainable manner in organizations. Previous studies demonstrate the complexity of the operations involved and the importance of the strategies adopted to serve the consumer market in a competitive manner. A qualitative literature review was carried out with the aim of identifying the main concepts on logistics, supply chain, competitiveness and sustainability. The study provided a conceptual analysis on the subject, allowing the identification of the tools and methods used that can contribute to the sustainable management of the supply chain. The bibliographic review made it possible to search for elements that demonstrate the importance of the activities that integrate the supply chain system and the strategies adopted for the efficient and competitive management of organizations. The research helped to raise important questions about the effectiveness of actions in relation to the sustainable use of resources in the area of logistics and the supply chain.

**Keywords:** Logistics, Supply Chain, Competitiveness, Sustainability.

## **ABSTRACT:**

This paper has as objective to introduce a study about the different theories that define the supply chain management as strategic factor and its importance to activities developed in a sustainable way in organizations. The studies already performed demonstrate the complexity of operations involved and the importance of strategies adopted to serve the consumer Market in a competitive way. A literature review was carried out in qualitative way, with the objective of identifying main concepts about logistics, supply chain management, competitiveness and sustainability. The study provided a conceptual analysis about the theme, allowing to identify tools and methods used that can contribute to sustainable supply chain management. The bibliographic review made it possible to search for elements that demonstrate the importance of activities that integrate the supply chain system and strategies adopted to the efficient management and competitiveness of organizations. The search collaborated to raise important questions about the effectiveness of actions in relation to sustainable use of resources in logistics and supply chain.

**Keywords:** Logistics, Supply Chain, Competitiveness, Sustainability.

---

<sup>14</sup>Graduated in Data Processing, Graduated in Geography. Specialist in Administration and Human Resources Management. Specialist in Higher Education Methodology and Distance Learning. Master's degree in Administration from Must University. jerryantonioraitzmaier@gmail.com .

## 1 INTRODUCTION

We can observe many changes in the global economy and in commercial relations between different institutions, whether public or private, transforming the way companies conduct their management and the search for solutions that go beyond business conducted to generate profit. Many concerns are identified based on market responses, requiring a strategic positioning for society and an assessment of their competitive advantages and socio-environmental responsibilities in relation to their competitors.

This new positioning requires an effort from all involved to define strategies that adequately and assertively guide all decision-making processes and that result in good results, whether financial or value-added for the socioeconomic space in which these organizations operate, thus determining new directions for the development of these production environments. The logistics and supply chain management area is an integral part of the set of strategies adopted, as it represents a determining part of the planning and production processes, connecting with the various partners and professionals involved in the chain that will supply local, regional and global markets with their inputs, products, services and partnership contracts. Supply chain management allows you to optimize production, save resources and transform the relationship with your customers through the services provided.

To understand all the factors that definitively influence the success of organizations and the contribution of the supply chain in different processes, it is necessary to analyze the various approaches presented by the authors and the results that help to improve these companies, valuing the participation of all those involved in defining strategies capable of transforming the organizational space through the management of innovation and socio-environmental responsibility. "The great relevance in strategic, tactical and operational planning is to ensure that, when done cohesively using the correct tools, they generate a great competitive advantage for the company, which in turn can monitor its processes with greater quality." (VICENTE *et. al.* 2015, p. 02)

The work was developed based on the study of bibliographical references with the review of the literature that presents the main concepts and contributions of the authors, considering the sample universe of methods and techniques already used by different professionals who work and develop actions for the planning and development of supply chain management. The research is justified by the great relevance of the topic for students and professionals in the area, contributing to the adoption of different actions that can

transform supply management in a sustainable way. The research methodology used was bibliographic, with a qualitative approach.

## **2 STRATEGIC SUPPLY CHAIN MANAGEMENT IN ORGANIZATIONAL ENVIRONMENTS**

### **2.1 THE SUPPLY CHAIN AND COMPETITIVENESS IN ORGANIZATIONS**

The business world has been undergoing profound transformations in recent decades due to the adoption of new techniques and procedures facilitated by the use of new tools such as management information systems and connections through digital access networks. This new scenario was built from the development of new technologies capable of processing data and information on a large scale, facilitating the work of the various sectors that make up the complex network of material and human resources within organizations. In view of all the changes generated from these transformations, managers and entrepreneurs adopt new work typologies to produce and distribute their products in an organized manner, thus requiring a network built through partnerships with other companies and stakeholders in the business segment developed by these organizations. "Any and all organizations that wish to remain competitive in the market with their products or services depend on third parties to keep their business active, be they suppliers, distributors, or customers." Silva, Braga (2018, p.12).

To Viana *et. al.* (2014, p. 11), "resource-based theory has been evolving and becoming a significant theoretical space for studies on competitive advantage". It is important to understand how these organizational structures are presented in the market and their availability to establish partnerships that result in different processes capable of transforming the way in which they produce and offer their products and services to their consumers. To this end, it is essential for managers and employees to evaluate their business activities, concentrating efforts to effectively and with quality meet the different demands presented in the consumer space.

The search for new technological tools and the training of its teams contribute to profound changes in the way of producing and operating its activities, strengthening existing commercial relationships within organizational environments, as well as becoming more competitive in the market through new partnerships and operating in new environments that generate profit for these organizations. All the work carried out by the teams and

conducted by its managers has as its ultimate goal the satisfaction of its customers through the production and delivery of products that present quality and that fully meet their needs.

According to Dias (2018, p. 05), "The production processes of a company are not only limited to its limits, but begin and end outside it with the careful selection of external partners (suppliers and customers) who will contribute to the stages of production and distribution of the goods and services produced". It is therefore necessary to understand what the customer wants and what they expect from the final product presented by the companies.

To this end, it is necessary to analyze the complexity of the integration of processes and the partnerships built between different organizations to achieve a result that meets the expectations of the various sectors involved, thus forming the supply chain that will systematically serve its consumers. It is necessary to understand how production chains are formed and the importance of logistics for business activities, whether commercial or industrial, which contribute to the evolution of these organizations, defining new strategies with recognition of the competitive advantage provided by these partnerships:

In general, a firm has a competitive advantage when it is able to generate greater economic value than rival firms. Economic value is simply the difference between the perceived benefits gained by a customer who buys a firm's products or services and the total economic cost of those products or services. Therefore, the size of a firm's competitive advantage is the difference between the economic value it can create and the economic value its rivals can create. (BARNEY, 2007, p. 10).

In order to clarify the determining factors that guide the importance of the supply chain for companies, it is necessary to analyze the different concepts that structure and define the theoretical basis for the topic in question. It is necessary to understand the terms that structure the entire network for companies and interested parties. Chopra (2011, p. 03) contributes to the analysis by defining:

A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer order. It includes not only the manufacturer and suppliers, but also carriers, warehouses, retailers, and even the customers themselves. Within every organization, as well as a manufacturer, the supply chain includes all functions involved in receiving and fulfilling a customer order. These functions include – but are not limited to – product development, marketing, operations, distribution, finance, and customer service.

When analyzing the concepts presented, it becomes clear that this chain is composed of several parts, thus constituting a large network of operations that seeks to offer products and services through the integrated management of all resources, involving employees, managers and partners in these operations. In view of the above, it is necessary to understand the actions carried out

by companies and what they are doing to stand out in the market. To do this, it is essential to review concepts and analyze the different strategies adopted to ensure the survival of these organizations in the face of high competition and a scenario of constant innovation. For Aguilera, Lazarini (2009, p. 71):

The answers to the questions “where are we?”, “where do we want to go and why?”, “what is the path to get where we want to go?” form a company’s strategy, that is, the way it will compete in a given market (...). Defining a strategy means creating the future of an organization in a structured manner and with a good dose of sensitivity and creativity. Strategy consists of how the company uses its competencies to develop competitive advantages that are sustainable, unique and valued by customers. It is the position chosen in the market to obtain returns above the industry average. Strategy is the way in which the company will compete in a given market...

According to Aguilera, Lazarini (2009, p. 72), “All of a company’s action plans have a single point of reference: its strategy for reaching the market in a position of advantage over its competitors. Strategy is what defines the company. It is the guide, the master beacon, which hovers above specific tactics and procedures, and is directly related to the competition.”

In addition to the proposal to obtain a definition that responds in a didactic way and supports the analysis and research work, it is proposed to insert new concepts about the different strategies adopted in organizations and that support the management of the supply chain. There are many contributions from the literature for the definition and contextualization, collaborating in the structuring of the research work and in the understanding of the importance of the theme for the academic universe and activities developed in the business environment.

Logistics has been gaining great relevance in all businesses; companies are becoming aware of the importance of knowing the best practices to work in an integrated manner with their business supply chain. The concept of logistics is to place the right product at the right time, in the right place and at the lowest possible cost. This concept has been used to describe the synergy provided by operations between the functions of companies, but it is necessary to seek, based on this concept, the description of what a logistics process really is. The logistics process must be connected to the concept of logistics, comprising the operational areas (supply, production and distribution), from the sources of raw materials until the finished product reaches the hands of the end consumer, seeking to minimize the costs involved and ensuring the improvement of service levels. Nogueira (2018, p. 02).

With the understanding of the definitions of logistics, it becomes necessary to differentiate the role of the supply chain for companies and the contribution of logistics in the planning and execution of these activities, integrating methods and techniques for the full development of strategic management for organizations. For (Ribeiro, 2009 as cited in Gomes, Ribeiro, (2013, p. 90):

A large group of authors have discussed the concepts and approaches of SC, and it can be seen that there are three different focuses within the concern with its conceptualization. One group of authors works with SC as a structure that supports relationships between agents and business processes, and not just a set of operations such as logistics. Another group, considering the company as the focus, adds to the previous opinion the detailing of activities, upstream and downstream. Finally, it can be seen that there are some authors who present the issue of business networks as an understanding of SC. Currently, research in the field of SCM has evolved from central interests around logistics processes/ operations through the incorporation of theoretical concepts and research in strategic planning, industrial organization, institutional economics (transaction costs), interorganizational relationships, and knowledge management systems.

It is possible to observe that the supply chain goes beyond the planning and operations stages of the logistics area, contributing to the different processes of companies through management that prioritizes the differentiation of their activities in the market, with a focus on a global and competitive environment. Cooperation between companies determines the ability to generate value in terms of place, time, quality and information.

Cooperation between companies that make up a supply chain has been explored in the literature, mainly in the areas of industrial organization, administration and production engineering. Such approaches generally consider the beneficial aspect of this cooperation, as it results in increased competitiveness and can even go beyond the marketing aspect, as it allows the inclusion of actions that allow for an increase in the learning process and the emergence of product and process innovations within the component companies. Despite this, these approaches generally neglect the fact that cooperative relationships occur asymmetrically in the chain, due to the heterogeneity of the components. Dias (2018, p. 02).

In view of the above, it is possible to observe much evidence of the changes generated by technological innovation, which can determine the different management models, methods and techniques that will assist in the processes to produce products or offer services with excellence, according to the demands and market niches. To this end, it is necessary to invest in training programs that lead to continuous learning, and to develop different strategies that promote the search for innovation in products and services, within the condition of organizations that pay attention to new trends in these highly competitive environments. In this sense, the search for new contributions from the academic community or experiences gained in organizational environments will contribute to the improvement of the entire supply chain through a systemic and integrated vision, as proposed by strategic business management. "The innovation process plays a fundamental role in growth strategies to enter new markets, expand market power and provide the company with a competitive advantage." Rocha *et. al.* (2015, p. 06).

## 2.2 SUSTAINABLE SUPPLY CHAIN MANAGEMENT IN ORGANIZATIONS

Major changes have occurred in recent decades in relation to environmental issues and the responsibility of the productive sector in the pollution and degradation of the environment, forcing institutions to review their practices and means of production to the detriment of the preservation of natural resources. When we analyze the different forms of production used and the different agents responsible for the processes, we can identify an economic system that uses these resources in an uncontrolled manner, aggravating the environmental issue globally.

In the search for alternatives that minimize the effects on the ecosystem and slow down harmful actions to the environment, whether in industrial activities, the use of fossil fuels, or even the uncontrolled consumption of water resources by companies, new concepts emerge that address these activities in a sustainable way, contributing to the search for balance between production processes and preservation of ecosystems. For Rocha *et. al.* (2015, p.539):

The adoption of sustainability management that incorporates economic, social and environmental aspects into the strategy and operations of organizations, considering the socio-environmental impacts related to production activities, increasingly represents a challenge and is related to the achievement of competitive advantage by organizations. Supply chain management and the incorporation of sustainability into its management are initiatives that are being used by different organizations, from different market segments, with the aim of obtaining competitive advantages in relation to their competitors and achieving longevity in their market.

Data and information are used by the scientific community to illustrate the gravity of the current situation, attempting to explicitly demonstrate the levels of pollution caused by industries and the entire chain involving production management. By revealing an urgent situation in relation to natural resources used in economic activities, companies represented by their owners, shareholders, employees and managers seek to define strategic actions that contribute to the practice of activities in a sustainable manner, involving professionals in the processes that integrate the different sectors, so that together they can find viable solutions and thus reduce the impacts caused by the activities developed.

The theme of sustainability has been gaining great notoriety over the last few decades, being the subject of several debates and agreements on the international scene, which aim to establish commitments in favor of the planet, as it is known that the incessant search

development is compromising the environment and putting our future at risk. Thus, to follow this trend and meet pressure from the government, entities and even customers themselves, the business world has been adopting measures that aim to mitigate the negative impact on the environment through sustainable development. (ROSA, ABDALA, 2020, p. 02).

Social and environmental responsibility has become a constant topic in business environments in recent years with the aim of involving the entire organizational system in measures that mitigate the impacts generated in the production of goods and services, reviewing the processes used and the most appropriate techniques for generating value in a sustainable manner. In order to try to address problem situations in the future and establish the responsibility of organizations in relation to the environment, it is necessary to analyze the factors that will contribute to the development of business and industrial activities within the parameters that imply the correct management of waste and its recycling. Rocha *et. al.* (2015, p. 540) contribute to reflections on the socio-environmental responsibility of organizations:

The inclusion of sustainability in the design and management models of organizations has been the objective of several interest groups, *stakeholders*. This interest arose to meet a demand imposed by society, in which organizations should be socially responsible, proposing plans and actions that encompass environmental, social and ethical dimensions. This new concept strengthened the creation of legal and institutional mechanisms for environmental protection.

The importance of the topic is demonstrated in the various research works that are presented by the academic and scientific community, with emphasis on the reflections that contribute to understanding the relevance observed in the applicability of the term sustainability for supply chain management.

With all the transformations observed from the awareness of environmental management and the strategies that define new parameters for organizations in a sustainable way, it becomes essential to review techniques and methods used, building competitive environments with the help of supply chain management to strengthen these companies in the market.

For Campos (2012, p. 135), "The support structure for the value chain must be formatted to be able to meet important change programs, integration of production systems (ERP) and supply chain management systems". Thus, operations involving logistics and the supply chain are of fundamental importance to serve the consumer market, contributing to the optimization of processes and savings of the various resources involved in the business structure.

All actions that involve innovation through the adoption of different available technologies help to implement measures that can intervene and correct operations,

maximizing processes for continuous improvement of the chain, strengthening its network as a way of valuing its actions in the market in a competitive way. "It is clear that, by taking into account the mechanism called institutional environment, the resource-based theory advances in the sense of, at least indirectly, considering the role of the environment in the formation of sustainable competitive advantage". Viana *et. al.* (2014, p.15).

Đ Agosto, Oliveira (2018, p. 117) clarify that " the goal of sustainable logistics explicitly considers reducing the consumption of natural resources, in particular sources of non-renewable energy and water, the emission of greenhouse gases, atmospheric pollutants, of noise and solid and liquid waste, while seeking to expand reuse and recycling of materials".

There are many perspectives for analyzing the importance of supply chain management for organizations, especially when considering the socio-environmental factors involved in the business area, helping companies and interested parties build an environment capable of combining technology and innovation with the preservation of natural resources available in the system.

When analyzing the changes that have occurred globally, companies and employees need to be connected to the new opportunities for their businesses and pay attention to the competitiveness factor as a way to survive in an increasingly complex and interconnected market. This scenario shows that without strategic planning and plans that include sustainability, companies will have great difficulty in continuing their business activities in a competitive manner. According to Silva, Braga (2018, p. 12):

Two main points that result in competitive advantage are related to the organization's ability to differentiate itself from the market and operate at lower costs, offering its customers differentiated products at lower prices. To this end, supply chain management makes it possible to identify possible points for improvement in terms of productivity and also to reduce/eliminate waste.

To remain competitive in the market, organizations depend on partnerships with other institutions and thus continue to participate in the production and distribution of products, without neglecting their responsibilities regarding the processes involved and collaboration in practices that sustainably serve their partners and customers.

## **FINAL CONSIDERATIONS**

The main objective of the work was to carry out a research in different bibliographical references to identify elements that indicate the importance of logistics and supply chain management for industrial operations and business activities. The research was

carried out in a qualitative manner on the topic in question, gathering data and information capable of supporting the description of the processes involving management and operations practices, the differences when considering the terms of logistics and supply chain, as well as strategic planning to present better results to the consumer market.

The analysis of the references made it possible to identify the different agents involved in supply chain management, the steps that are taken to dynamically and efficiently serve companies, their suppliers, customers and other interested parties that are part of the production and distribution network of products and services.

The development of the article contributed to analyzing the research work that has already been carried out by different authors involving the area of supply management and the new trends in the area for organizations, considering the use of new technologies in the various production processes and the importance of cooperation between organizations to improve their results and satisfactorily serve the consumer market.

The analysis of the level of competitiveness developed by companies and the degree of commitment to socio-environmental actions that can transform the scenario in which they operate, promoting changes throughout the chain in a sustainable manner, must be considered as fundamental strategic factors for supply chain management.

The study of strategic logistics and supply chain management helped identify the mechanisms that influence and transform operations in different areas, with special attention to future interventions that can be carried out through new technologies, allowing for congruence between the planning and production processes that involve the logistics and supply area, with measures that contribute to environmental preservation. To continue the research, it is suggested that research projects be developed that promote new reflections on the different technologies that assist in the production and distribution of products, considering the urgent needs of professionals and companies in adopting new protocols for the insertion of sustainable practices as a strategic factor for the competitiveness of organizations.

## REFERENCES

AGUILERA, J.C.; LAZARINI, L.C. **Strategic management of corporate changes. Turnaround, the true creative destruction.** [[e-book] São Paulo, SP: Instituto Chiavenato (Org.). Saraiva. 2009. Available at: <https://integrada.minhabiblioteca.com.br/#/books/9788502117044/cfi/3!/4/4@0.00:35.8>. Accessed on: April 19, 2021.

BARNEY, J.B. **Strategic management and competitive advantage**. [e-book] São Paulo, SP: Pearson Prentice Hall. Translated by Monica Rosemberg. 2007. Available at: <https://plataforma.bvirtual.com.br/Leitor/Publicacao/386/pdf/0?code=MdpAFoSq18UyhVDnoLTGqyXqhiL6bZJ23ibe9AZE0uyzWk5iXDMUj8HiQYPX7j7k4siNK9oF6DL5oakMuXw1> QQ==. Accessed on: April 2, 2021.

CAMPOS, L. F. R. (2012). **Supply Chain: a managerial vision**. Organizational Logistics Series. 1st Ed. Curitiba, PR: Intersaberes.

CHOPRA, S. (2011). Supply chain management: strategy, planning and operations. Translated by Sérgio Nascimento. [e-book], 6th Ed. **Pearson Education Brazil**. Evaluable: <https://plataforma.bvirtual.com.br/Leitor/Publicacao/36873/pdf/0?code=4jEK6mtcVtPoZccAgsp/1i/1erFIaGgaMrSZez2C7eUUdXRHTbcX2qVPDaV+FzEKfowf+aVF21QU5LCrQGgKg==>, Accessed at: 4 apr. 2021.

D AGOSTO, M. A.; OLIVEIRA, M. O. (2018). **Sustainable logistics: overcoming the contemporary supply chain challenge**. [e-book], 1st ed. Rio de Janeiro, RJ: Elsevier. Available: <https://integrada.minhabiblioteca.com.br/#/books/9788595153264/cfi/6/8!/4/2/36@0:0>, [Accessed 6 April 2021].

DIAS, MC (2018). Innovation, learning and cooperation in the textile supply chain of the Americana/SP region. **Management and Regionality**. [online], 34. Available: [https://seer.uscs.edu.br/index.php/revista\\_gestao/article/view/3613](https://seer.uscs.edu.br/index.php/revista_gestao/article/view/3613), [Accessed 8 April 2021].

GOMES, CFS; RIBEIRO, PCC (2013). Supply chain management integrated with information technology. [e-book], 2nd ed. **Revised and Updated**. São Paulo: SP: Centage Learning; Available at: <https://integrada.minhabiblioteca.com.br/#/books/9788522115679/cfi/2!/4/4@0.00:55.1>, [Accessed 5 April 2021].

WALNUT, THE **Business Logistics**—a practical guide to logistics operations. [e-book], 2. Ed. São Paulo, SP: Atlas. 2018. Available: <https://integrada.minhabiblioteca.com.br/#/books/9788597015553/cfi/6/8!/4/2/4@0:3.64>, [Accessed 10 April 2021].

ROCHA, AC, GOMES, CM; KNEIPP, JM Sustainable management in the supply chain and innovative performance in processes: a study in the aluminum industry. **RACE**—Unoesc [online], n. 14, 2015. Available at: <http://editora.unoesc.edu.br/index.php/race>. Accessed on: April 10, 2021.

ROSA, AAS, ABDALA, EC; CEZARINO, LO (2020). Implications of sustainability in the supply chain: a case study in a wholesale company. **RACEF**—Fundace [online], 11. Available: <https://www.fundace.org.br/revistaracef/index.php/racef/article/view/697>. Accessed 10 Apr. 2021.

SILVA, MM; BRAGA, RM Supply chain management as a source of competitive advantage. Innovation, Projects and Technologies Magazines. **IPTEC** [online], 06, 2018. Available: <http://www6.uninove.br/ojs/journaliji/index.php/iptec/article/view/127/0>. Accessed 12 Apr. 2021.

VIANA, FLE, NETO, JPB; Añez, MEM (2014). Supply chain management and competitive advantage: an analysis model based on resource-based theory. **Administrative Sciences Journal**[online], 20. Available: <https://periodicos.unifor.br/rca/article/view/3406>, [Accessed 12 April 2021].

VICENTE, MVP, ALMEIDA, GJS, BARBOSA, MV; FERREIRA, SL Benefits of strategic management in the supply chain. **XI National Congress of Excellence in Management**[online]. 13 and 14 Aug 2015. Available: [https://www.inovarse.org/sites/default/files/T\\_15\\_058\\_13.pdf](https://www.inovarse.org/sites/default/files/T_15_058_13.pdf). Accessed on: April 14, 2021.