

Supply Chain Management in a Real Estate Developer in the Metropolitan Region of Fortaleza: A Qualitative Analysis

1 Paulo Eduardo Silva Oliveira; ² Rickardo Léo Ramos Gomes
(<https://orcid.org/0000-0001-6101-9571>)

¹ Bachelor's degree in Administration from UniAteneu; currently pursuing an MBA in Supply Chain Management at IEL – Euvaldo Lodi Institute, Ceará Chapter; Supply Chain Coordinator at Terra Brasília Participation and Emp. Ltda., Fortaleza-CE, Brasil.

² Professor of Scientific Work Methodology (Advisor) at Euvaldo Lodi Institute; FBUNI; Ph.D. (Honorary Title) in Biological Sciences from FICL; M.Sc. in Crop Science from UFC; Specialist in Science Teaching Methods from UECe; Bachelor's degree in Agronomy from UFC; Teaching License in Natural Sciences, Mathematics, and their Technologies from UVA; Completion of courses in Scientific Methodology, Education, People Management, Project Management (Logistics), Auditing, and Health from HARVARD; BID; FIOCRUZ; JOHNS HOPKINS UNIVERSITY (JHBSPH); DELOITTE. International Consultant for Scientific Laboratories under the World Bank (BIRD). Scientific Consultant, Fortaleza-CE, Brasil.

Corresponding Author: Rickardo Léo Ramos Gomes (<https://orcid.org/0000-0001-6101-9571>)

Abstract: Companies often purchase inexpensive and simple items. To efficiently and economically utilize resources, organizations must have proper management of their purchases. This study adopted a qualitative approach and an investigation procedure associated with a bibliographic research. It reports, therefore, a qualitative analysis aimed at acquiring and developing knowledge that can be applied in the purchasing sector of a small-scale land developer located in Fortaleza (CE). The general objective of this case study is to investigate how to structure and organize processes in the supply sector of a land developer and suggest improvements that can reduce costs and enhance purchasing processes in an organized, structured sector capable of meeting demands quickly, effectively, and efficiently, in the specifications and quantities requested. At the end of the study, it is concluded that effective management of the supply sector is a key element for the competitiveness and success of companies in the current market. It is recommended that the land developer in question adopt the best practices identified in this study, seeking to improve its acquisition processes, inventory control, and supply chain management as a whole. Only then will it be possible to address the challenges and take advantage of the opportunities inherent in the constantly changing business environment.

Keywords: Efficiency, Economy, Purchasing processes, Costs, Competitiveness.

Date of Submission: 02-03-2024

Date of acceptance: 13-03-2024

I. INTRODUCTION

Amidst the severe economic crisis of recent years (from 2014 to 2019), companies have faced resource and financial credit scarcity, further exacerbated by the ongoing pandemic. The acquisition of materials and services has become a challenge for small, medium, and large enterprises alike. Having a structured procurement department with clear procedures and processes is a paramount necessity for modern organizations.

Supply and procurement areas are also subject to a variety of uncertainties, including changes in prices, companies' negotiation capacity, financial resource and inventory costs, and bargaining power. Therefore, to ensure process effectiveness, plans must be developed with the aim of minimizing these shortcomings.

The procurement sector is responsible for acquiring all materials and services necessary for the smooth operation of company activities. It is essential to discuss the subject and suggest improvements aimed at cost reduction, organization, and agility in meeting demands.

This study adopts a qualitative approach and an investigative procedure associated with bibliographic research. Thus, it reports on a qualitative analysis aimed at acquiring and developing knowledge applicable to the procurement sector of a small-scale real estate developer located in Fortaleza, Brazil.

The general objective of this case study is to investigate how to structure and organize processes in the supply sector of a real estate developer and suggest improvements that can reduce costs and enhance

procurement processes in an organized, structured sector capable of meeting demands quickly, effectively, and efficiently, in the specified specifications and quantities requested.

The specific objectives are as follows: to demonstrate how to define processes and procedures to be followed; to show the relevance of dividing the procurement department by material categories; to research how to optimize inventory control routines.

This study is structured into four sections. The first section is the introduction, where the objectives of this study are outlined. The second section is the theoretical framework that provided scientific support in the discussion established between the contributions of the researched authors and the opinions of the author of this study.

II. EXPERIMENTAL PROCEDURE

The present study adopted a qualitative approach and an investigative procedure associated with bibliographic research. It reports, therefore, on a qualitative analysis aimed at acquiring and developing knowledge applicable to the procurement sector of a small-scale real estate developer located in Fortaleza, Brazil.

According to Sousa and Santos (2020, p. 05), "the structure of the qualitative approach and its relationship with scientific research across various research types, instruments, and data analysis techniques justify its strong connection with the various sectors that comprise modern companies".

Regarding bibliographic research, Tessaro (2023, p. 15) states: "Literature review research allows [...] the understanding of a specific area of knowledge, its theoretical-methodological perspectives, trends, and recurrences, as well as the identification of research areas that need to be explored."

Among the authors researched, special mention is due to Moraes (2005), Szajubok, Alencar, and Almeida (2006), Giacomini and Servare Junior (2022), Pereira, Marques, and Guimarães (2022), and Fragata and Oliveira (2023), all linked to the same theme addressed here and who contributed to enriching this work.

III. THEORETICAL FRAMEWORK

The supply sector, which is an important stage within an organization producing valuable products or services, was previously referred to as the purchasing department because it focused solely on material procurement (SANTOS et al., 2021).

The term "supply," widely used in various industrial sectors, is gradually being applied to the construction industry. Authors Szajubok, Alencar, Almeida (2006, p. 304) define supply as "[...] the phase of acquisition, manufacturing, transportation, and delivery to the site of all materials, structures, and equipment necessary for construction and indispensable for project execution."

As defined by Candido (2018), Supply Chain Management (SCM) refers to an organization's oversight of actions to maximize customer value and achieve sustainable competitive advantages. It is a strategic process of managing various flows, including goods, services, finances, information, and inter-company relationships, with a focus on achieving and supporting company objectives.

Experiencing the supply sector in a construction company, we understand the need for such adjustments for the company's improved functioning because the organizational structuring and process definition will greatly benefit the company in decision-making, making it more competitive.

Studying these subjects, we realize we can contribute more effectively by bringing to the company the understanding that we are dealing with a strategic and highly important sector. In an increasingly competitive market, the entry of qualified individuals with expertise in an organized material procurement sector can make the company more competitive since purchasing with quality can provide a competitive and profitable product.

At times, the lack of control, criteria, and accuracy in construction companies has led to delays and lack of quality in project delivery, contributing to significant maintenance and rework that ultimately result in losses and dissatisfaction among clients and partners, turning the dream of buying a property into a nightmare.

With the growth of companies and commerce, this sector has become more important and is now part of a complex and integrated process involving actions that encompass the strategic role of other parts of the company. The development of the internet industry, new ways in which companies and suppliers interact within the supply chain, and increased competition from more specialized suppliers due to technological advancements are some of the factors that have contributed to this change (LIMA, 2004, cited in RIBEIRO 2006).

3.1 Defining Processes and Guidelines to Follow

The concept of Supply Chain Management arises from the new idea that companies can gain competitive advantages and differentiate themselves in the market by connecting the flow of materials and information and sharing them with other chain members.

According to Fragata and Oliveira (2023, p. 03):

Supply chain management involves managing relationships in a network of organizations, ranging from original suppliers to end consumers. This is achieved using essential business processes to create value for consumers and stakeholders, represented [...] by citizens, public entities, and other partner organizations.

"Inventory management should reconcile the objectives of the four departments (purchasing, production, sales, and finance) in the best way possible, without impairing the company's operability, as well as defining the inventory policy," affirms Dias (2010, p. 16).

Cooperation between departments is crucial for the outcome of the product to be delivered to the customer; everyone needs to understand the importance and relevance of each area because each part of the process will contribute positively or negatively to what will be received by the end customer.

For instance, the purchasing function has evolved and is now crucial. Nowadays, knowing how to purchase to benefit the company is fundamental for its competitiveness and market survival.

According to Ballou (2001), several elements affect the activities of the purchasing department, including payment terms, delivery time, price negotiation, and supplier selection. Currently, negotiations in the purchasing sector are directly affected by supplier selection, prices, and delivery times.

3.2 The Relevance of Dividing the Purchasing Department by Material Categories

The purchasing function in the construction industry is increasingly gaining importance, as mentioned earlier. Over time, its role was simply considered a bureaucratic task of placing orders with suppliers.

E-Procurement encompasses more than just buying things. It includes strategic tasks such as sourcing, negotiating with suppliers, and collaborating in product development. This means that online purchasing is not just about making choices. Furthermore, its work involves reorganizing intra-organizational processes driven by transactions and establishing relationships between suppliers and buyers within a purchasing network (GRANDE et al., 2016, p. 9).

However, construction companies are beginning to understand that the material procurement process can be strategic and profitable but can also incur losses if mismanaged (MARQUES, 2009). Currently, it is an organizational function that receives significant attention, as a substantial portion of the company's financial resources circulate through it.

Most of these companies operate in the sector due to immediate needs, and little investment is still made in the purchasing function, despite the changing landscape. However, focusing on improving the material procurement process can be a significant asset for the construction company striving to be more competitive and profitable (JUNGLES; SANTOS, 2008).

Pereira, Marques, and Guimarães (2022, p. 151) assert that "[...] well-designed and managed procurement processes allow purchasing analysts to devote sufficient attention to each group of inputs, resulting in a service that better meets the needs of requestors."

Procurement management—the well-known purchasing function—truly assumes a strategic role in today's businesses, particularly financial ones, increasingly leaving behind the biased view that it was a bureaucratic and repetitive activity, a cost center rather than a profit center (MORAES, 2005).

Given the current volume of resources involved, the act of purchasing plays an important role in procurement negotiations in industries, moving away from being a bureaucratic and repetitive activity.

3.3 How to Optimize Inventory Control Routines

The purchasing department is interconnected with other departments and is interrelated with inventory levels (storehouse), which is tasked with balancing the quantity of materials to be purchased.

Those responsible for construction projects are usually more concerned with the technical aspects of the architectural and structural design, but they may overlook losses, delays, or rework. Therefore, there is a high level of waste, which directly impacts environmental sustainability. Better inventory management can help make construction more sustainable by reducing waste caused by loss and expiration of materials (SOUSA et al., 2019).

Worker protection also depends on inventory management. Proper storage of construction supplies can prevent occupational diseases caused by hazardous materials.

Peluso, Cotrim, Oliveira, Campos, and Galdamez (2020) add that inventory control and worker safety are crucial functions of companies and provide companies with a higher level of competitiveness because businesses are always seeking improvements to remain in the current market.

Socially responsible construction can be achieved through proper inventory procedures, which include handling these materials and providing protective equipment for individuals and organizations (GIACOMIN; SERVARE JUNIOR, 2022).

Furthermore, the company avoids problems such as delivery delays and lack of products in stock through exceptionally effective inventory control. This prevents the loss of potential customers (PIRAN; AZZOLINI; VANIN, 2020).

IV. CONCLUSION

The present study explored supply chain management in a land developer company in the metropolitan region of Fortaleza, adopting a qualitative approach and bibliographic research as the methodology of investigation. In a context of economic crisis and challenges exacerbated by the pandemic, effective management of the supply chain sector emerges as a pressing need for companies of all sizes.

Through literature analysis and understanding of practices and concepts associated with supply chain management, it was possible to highlight the strategic importance of the supply chain sector for the competitiveness and sustainability of organizations. It was found that efficient management of procurement, storage, and distribution processes is crucial to ensure the operability and profitability of companies.

In the specific context of the studied land developer, the need to structure and organize supply processes to meet demands promptly, effectively, and efficiently was identified. The division of the purchasing department by material categories emerged as a relevant strategy to optimize the procurement process and ensure the quality of materials acquired.

Furthermore, the importance of inventory control was emphasized as an essential element to minimize waste, reduce costs, and ensure the availability of materials necessary for project execution. Effective inventory control not only contributes to environmental sustainability but also to worker safety and customer satisfaction. It is important to note that the bibliographic review conducted in this study provided a deep understanding of the theoretical-methodological perspectives related to supply chain management.

In light of the above, we conclude that effective supply chain management is a key element for the competitiveness and success of companies in the current market. It is recommended that the land developer in question adopts the best practices identified in this study, seeking to enhance its procurement processes, inventory control, and overall supply chain management. Only then will it be possible to address the challenges and seize the opportunities inherent in the constantly evolving business environment.

Conflict of interest

There is no conflict to disclose.

ACKNOWLEDGEMENT

The authors express their gratitude to the Euvaldo Lodi Institute, represented by Coordinator Ana Zuleika Mendes Bastos.

REFERENCES

- [1] Ballou, R. H. (2001). *Supply Chain Management* (4th ed.). Porto Alegre: Bookmann.
- [2] Cândido, J. F. (2018). The importance of supply chain management in the public sector (Undergraduate Thesis). Universidade Federal de São João del-Rei. Retrieved from <http://dspace.nead.ufsj.edu.br/trabalhospublicos/handle/123456789/289>.
- [3] Dias, M. A. R. (2010). *Materials management: A logistic approach*. São Paulo: Atlas.
- [4] Fragata, J. P., & de Oliveira, M. A. (2023). Supply Chain Management in the Public Sector: Application Proposal of the Lean Thinking Concept for Process Improvement. *Foco Journal*, 16(6), e2115. <http://doi.org/10.54751/revistafoco.v16n6-010>.
- [5] Giacomini, C., & Servare Junior, M. W. J. (2022). Inventory control as a strategic differential: Application in a textile retail company. *Brazilian Journal of Production Engineering*, 8(3), 77–90. <http://doi.org/10.47456/bjpe.v8i3.37046>.
- [6] Grande, M. M., et al. (2016). E-Procurement: Concepts, Models and Critical Success Factors. *REAd. Electronic Journal of Administration* (Porto Alegre), 22(3), 312–335.
- [7] Moraes, A. (2005). *Purchasing Management*. Industrial Administration Course Handbook. Rio de Janeiro: CEFDET.
- [8] Peluso, E. C. P., Cotrim, S. L., Oliveira, C. C. de, Campos, R. V. de M., & Galdamez, E. V. C. (2020). Inventory Management: Implementation of Improvement in a Recyclable Broom Factory. *Proceedings of the National Meeting of Production Engineering - Enegep*, 40.
- [9] Pereira, M., Marques, A. B., & Guimarães, A. A. (2022). Procurement Process Improvement Planning: An Application. *Management and Secretariat Journal (GeSec)*, 13(3), 148-173. <http://doi.org/10.7769/gesec.v14i1.1506>.
- [10] Piran, A., Azzolini, J. C., & Vanin, A. B. (2020). Proposal for Improvement in Inventory Management in a Company Operating in the Food Distribution Sector in the Catarinense Midwest. *Proceedings of the National Meeting of Production Engineering - Enegep*.
- [11] Ribeiro, P. K. P. (2006). Management of the materials acquisition cycle in building production (Master's Thesis). Universidade Federal de São Carlos.
- [12] Santos, E. M. D., et al. (2021). Supply Chain Management in the Brazilian public sector: state of the art. *Production Online Journal*, 21(3), 726–745. Retrieved from <https://producaoonline.org.br/rpo/article/download/4239/2061/13318>.
- [13] Sousa, J. R. de, & Santos, S. C. M. dos. (2020). Content Analysis in Qualitative Research: Way of Thinking and Doing. *Research and Debate in Education*, 10(2), 1396–1416. <http://doi.org/10.34019/2237-9444.2020.v10.31559>.
- [14] Szajubok, N. K., Alencar, L. H., & Almeida, A. T. (2006). *Materials Management Model in Civil Construction Using a Multicriteria Model*. Recife: UFPE.
- [15] Tessaro, M. (2023). Bibliographic review research in the education area: Mapping difficulties of postgraduate students. *Focus on Education*, 26(49), 1–24. <http://doi.org/10.36704/eef.v26i49.6994>.