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Strategic Management of Road Transport: Advantages and Disadvantages of Choosing Own Fleet or Outsourcing

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ABSTRACT

The strategic management of road transport represents a fundamental pillar for the operational and financial success of companies that depend on logistical efficiency to deliver goods and services. The preparation of this work involved an investigation conducted through scientific bibliographical research. The general objective of this research is to analyze the most advantageous alternative when making a decision regarding your own or outsourced road transport fleet with a view to profitability. These are the specific objectives: Describe the importance of transport logistics and road transport; show in a simple and objective way an analysis of the best fleet composition for a cargo transport company. It was concluded that the strategic management of road transport, between its own and outsourced fleet, is complex and vital for companies due to the need to reduce costs.

***Keywords**: Strategic management; Road Transport; Transport Logistics; Own Fleet; Outsourced Fleet.*

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I. INTRODUCTION

Strategic management of road transport represents a fundamental pillar for the operational and financial success of companies relying on logistical efficiency for the delivery of goods and services. Within this management framework, a crucial decision stands out: the choice between maintaining an own fleet or resorting to transport outsourcing. This paper aims to explore the advantages and disadvantages associated with both approaches, delineating the impacts of this decision on organizational strategic management.

In Brazil, the primary means of production distribution is through road transport. Currently, companies seek to reduce their costs associated with goods transportation. The challenge for strategic transport management lies in evaluating the best option among the types of fleets available in the market.

This process is quite complex, with studies indicating a series of related variables such as fleet costs, investment capacity, fleet generation, degree of dependence on third parties, minimum freight rates, labor demands, service quality, demand, and competition. The definition of the type of fleet to be used is determined through a series of decision-making processes, including the type of cargo to be transported, routes, vehicles, and demand. Transport costs significantly impact operations, hence the necessity for a thorough cost analysis to make more informed decisions.

Clearly identifying uncertainties within the Brazilian context allows transport companies to define the strategy of choosing between an own fleet or outsourcing with greater precision. The decision-making process regarding own fleet or outsourcing encompasses a range of variables, from the scope of services and customer profiles to legal and operational aspects of the region in which they operate.

The pursuit of cost reduction without compromising the quality of services offered is a challenge for all transport companies. This work is justified by the fact that seeking transportation alternatives through technical studies and cost composition may result in expense reduction for companies and consequently an increase in their profits.

The topic of strategic management of road transport, specifically concerning the choice between an own fleet and outsourcing, assumes significant relevance in the contemporary business landscape. Faced with increasing logistical complexity and economic pressures, organizations need to make informed decisions that optimize operations and contribute to the achievement of their objectives. Exploring the advantages and disadvantages of each approach will not only provide a deeper understanding of the challenges faced by companies in the road transport sector but also offer valuable insights for managers and decision-makers, enabling them to make more informed and aligned strategic choices tailored to the specific needs of their operations.

The elaboration of this work involved an investigation conducted through bibliographic, scientific, and documentary research, taking into account the contributions of scholars such as Samuel Michel Faller (2020), Eudázio Ferreira de Lima et al. (2018), Fabrício Simplício Maia et al. (2019), and Anita Lopes da Hora Monteiro et al. (2018). The refinement process included the analysis of books, articles, monographs, documents, files from public and private institutions, as well as data, abstracts, and reviews of the texts examined.

The general objective of this research is to analyze the most advantageous alternative regarding the decision-making process regarding the own or outsourced road transport fleet in terms of profitability. The aim is to find a balance in terms of cost-benefit, profitability, and sustainability, for the most dynamic choice among strategies, with the goal of profitability.

The specific objectives are to describe the importance of transport logistics and road transport, to provide a simple and objective analysis of the best fleet composition for a freight transport company, to analyze the benefits and risks of each composition, and to propose a composition or mix that ensures service provision and profitability to the researched strategic transport management.

The work deepened the understanding of the subject by exploring various aspects of road transport. Initially, it highlighted the fundamental importance of freight transport in the logistical and economic operations of companies, emphasizing its relevance as a key element in achieving efficiency in product delivery, aligned with logistical objectives of providing the right product, in the right quantity, at the right time, and at the right place, while minimizing costs, as pointed out by Silva (2023) [1].

Transport Outsourcing was then addressed, with an analysis of its advantages and disadvantages. The growth of this practice was highlighted as an opportunity for companies to increase their competitiveness in production and customer service. However, based on the lessons learned from Maia et al. (2019) and Silva (2023), it was emphasized that this strategy is not without challenges, such as cost variations, lack of total control over deliveries, and increased risk of product damage [1], [2].

Additionally, a section was dedicated to exploring the Advantages and Disadvantages of Own Fleet, recognizing, as observed by Monteiro et al. (2018), that each type of fleet presents its own positive and negative aspects. The need for strategic balance between cost and vehicle availability was emphasized, highlighting the proposal of a mixed fleet as an alternative to deal with the challenges inherent in both approaches [3].

Thus, by presenting detailed analyses of Freight Transport, Transport Outsourcing, and Advantages and Disadvantages of Own Fleet, the work seeks to provide insight into the complexities of strategic road transport management. This approach aims to enrich the understanding of managers, professionals, and academics working in the field of logistics and transport, providing valuable content to enhance practices and decision-making.

II. MATERIAL AND METHODS

The development of this work involved an investigation conducted through bibliographic, scientific, and documentary research, taking into consideration the contributions of scholars such as Samuel Michel Faller (2020), Eudázio Ferreira de Lima et al. (2018), Fabrício Simplício Maia et al. (2019), and Anita Lopes da Hora Monteiro et al. (2018). The refinement process included the analysis of books, articles, monographs, documents, files from public and private institutions, as well as data, abstracts, and reviews of the texts examined.

Following the perspective presented by Tozoni-Reis (2007), it can be affirmed that the scientific methodology underpinning this research, in its relentless pursuit of further knowledge about educational phenomena, is rooted in the theoretical and methodological frameworks of the human and social sciences. Over time, the human and social sciences have been dedicated to the development of research methodologies consistent with their objectives of interpreting the human world [4].

Regarding the results of the research, the objective is to enhance understanding of the topic, thus classifying it as pure research. In terms of purposes, the methodology adopted was inductive, using reference, indexing, and literature review techniques. Following the approach suggested by Silveira et al. (2011), bibliographic research corresponds to the exploration of previously published material, such as books, journals, and articles, providing the theoretical basis that ensures the scientific nature of the work. Documentary research, on the other hand, involves the analysis of materials that have not yet been subjected to analytical evaluation, including documents from public or private archives, letters, diaries, medical records, and reports [5].

Through detailed bibliographic research, it is possible to obtain a comprehensive view of the topic and establish a grounded starting point. This research assists in understanding what has already been published on the subject, contributing to the theoretical basis of the research.

Additionally, literature reviews can improve processes already conducted, minimizing the accumulation of errors, thus enhancing the reliability and accuracy of the results obtained. Regarding sources, texts obtained from the internet and relevant books on the topic were used. As for the approach, the research is qualitative, focusing on the understanding and interpretation of the topic, attributing meaning to the data and information collected.

III. THEORETICAL FRAMEWORK

In pursuit of cost reduction, companies need to consider various perspectives, including financial and operational aspects. The financial perspective is a fundamental area of decision-making because it is through it that the feasibility of investments will be evaluated. The operational perspective is visibly important, as this decision-making process implies others, such as fleet control, third-party management, and the transportation operation itself, to maintain the quality and efficiency of the service provided.

The decision-making process between an own or outsourced transportation fleet should stem from a specific analysis of the reality in which the company operates, to identify differences and determine which type of fleet is more convenient, considering the advantages and disadvantages of managing own or outsourced vehicles, and how to use the units effectively, regardless of the case. In summary, the quest for cost reduction demands a comprehensive analysis involving financial and operational perspectives.

The financial assessment is crucial in determining the feasibility of investments, while the operational perspective plays a vital role, impacting decisions related to fleet control, third-party management, and transportation operations themselves. This decision-making process is not just an isolated choice but one that directly influences the quality and efficiency of the service offered.

3.1 Freight Transport

Initially, it is worth mentioning that strategic transportation management is an essential aspect of modern business operations. It involves the planning, execution, and management of transportation activities to optimize efficiency, reduce costs, and enhance customer satisfaction. Choosing the right fleet for your business is a decision that can impact your financial results.

Effective management of companies faces logistical challenges in the current economic scenario, with road transportation being a crucial strategic component to meet stakeholder demands and reduce costs. According to the insights from Silva (2023), an efficient transportation system is indispensable to ensure product competitiveness, as transportation costs represent a significant portion of its value [1].

Furthermore, strategic transportation logistics refers to the process of planning and executing transportation activities in a manner that aligns with the company's overall business objectives. Relevant to the lessons from Monteiro et al. (2018), this involves managing various modes of transportation, including road, rail, air, and sea, to ensure the efficient circulation of goods and services [3].

As per Silva's (2023) assertions, the essential activity to achieve logistical objectives in a company is transportation. This implies delivering the right product, in the precise quantity, at the appropriate time, and in the proper location, all aimed at minimizing costs. The importance of transportation has grown in the economy, as a significant portion of the movement of goods and cargo depends on this service. Each transportation mode presents its peculiarities, feasibility, and commercial attractiveness, considering factors such as geographical conditions, local infrastructure, type of cargo, volume transported, among others [1].

The choice of the right fleet directly impacts financial results. Facing logistical challenges, especially in road transportation, effective management becomes complex, requiring an efficient system to ensure product competitiveness. According to Lima et al. (2018), strategic transportation logistics highlights the need to align activities with business objectives, managing various modes to ensure the efficient circulation of goods [6].

In the context of transportation outsourcing, despite being an opportunity to increase competitiveness, there are challenges such as additional costs and lack of total control. The suggestion of a mixed fleet balances cost and availability variables, offering flexibility and efficiency in logistical management to overcome challenges and optimize financial results, a topic that will be addressed in the next section.

3.2 Transportation Outsourcing: Advantages and Disadvantages.

Transportation outsourcing has become a common practice among companies seeking to reduce costs, increase efficiency, and improve service quality. In line with the insights from Faller (2020), by entrusting their transportation needs to third-party providers, companies can benefit from specialized knowledge, technology, and resources that may be too expensive or difficult to acquire internally. However, outsourcing also brings risks and challenges, including loss of control, security threats, and conflicts of interest [7].

Advantages of Transportation Outsourcing: Outsourcing transportation operations can bring various benefits to companies. According to Maia et al. (2019), outsourcing can result in cost savings due to reduced capital investment and operational expenses. For example, a company that outsources its logistics operations can avoid the need to purchase or lease vehicles, hire drivers, and maintain a fleet. Instead, it can rely on the resources and expertise of the third-party provider, paying only for the services it needs [2]. According to Silva (2023) lessons, outsourcing can increase efficiency and productivity due to specialized knowledge and resources. A transportation provider can offer advanced technology, data analysis, and supply chain management systems that may be too expensive or complex for a company to develop internally [1].

Transportation outsourcing can be particularly beneficial for small businesses that lack the resources or experience to internally meet their transportation needs. According to Maia (2019), outsourcing can provide access to resources and knowledge that may be too expensive or difficult to acquire internally, such as advanced technology, specialized equipment, and trained personnel [2]. Additionally, it can increase flexibility to adapt to constantly changing business needs and requirements, such as seasonal fluctuations or unexpected growth, and reduce administrative burdens and overall costs, freeing up time and resources for other business activities. In understanding Maia (2019) and Silva (2023) texts, outsourcing can lead to improved service quality due to access to better technologies and equipment. For example, a provider can offer real-time tracking, on-time delivery, and customized solutions that can enhance the customer experience [1], [2].

It is worth noting that all types of fleets have their positive and negative aspects, risks, control points, and profitability, the main motivation for carrying out this work was precisely the fact that we are daily immersed in this dilemma, what is the best fleet option.

It is clear that transportation outsourcing is an opportunity for increased competitiveness, both in terms of production and customer service, since the own fleet may not be sufficient to meet demand, hiring an outsourced fleet can be a profitable solution, as mentioned by Maia (2019) and Silva (2023) [1], [2]. As for its disadvantages, it was found that the price of transportation can vary depending on demand, there is no possibility of full control of deliveries, and there is a greater chance of product damage.

Despite the benefits of outsourcing, there are also several potential disadvantages that companies should consider. In this case, Monteiro et al. (2018) state that outsourcing can result in loss of control over transportation operations and service quality. A company may not have direct supervision over the drivers, vehicles, or routes of the third-party provider, which can lead to delays, errors, or non-compliance with regulations [3].

Furthermore, subcontracting can pose security threats, such as data breaches or theft of goods, especially if the provider does not have adequate security measures or training. Corroborating with Monteiro et al. (2018), outsourcing can create a dependency on a third-party provider and potential conflicts of interest, such as when the provider serves multiple clients with competing demands or interests [3].

Transportation outsourcing can bring significant benefits to companies, such as cost reduction, increased efficiency, and improved service quality. However, it also entails risks and challenges, such as loss of control, security threats, and conflicts of interest. According to Silva (2023) and Monteiro et al. (2018), to make an informed decision about outsourcing, companies must consider factors such as cost-benefit analysis, supplier selection, and compliance with legal and ethical standards. Successful outsourcing requires careful planning, clear communication, and effective monitoring and evaluation mechanisms, as demonstrated by case studies of companies that have benefited from outsourcing [1], [3].

Before deciding to outsource transportation services, companies should consider various factors. According to Silva (2023), they should conduct a cost-benefit analysis of outsourcing versus internal transportation operations, taking into account factors such as volume, frequency, distance, and complexity of transportation needs. In addition to assessing the knowledge, experience, and reputation of the third-party provider, through background checks, site visits, and references [1].

Furthermore, evaluate the supplier's compliance with legal and ethical standards, such as safety regulations, labor laws, and environmental policies. As mentioned by Monteiro et al. (2018), outsourced companies will certainly require additional costs, such as for maintenance or replacement of vehicles, costs related to the driver. However, the balance between cost variables and vehicle availability lies in acquiring a mixed fleet.

It is valid to observe that the advantages and disadvantages of outsourcing should be weighed against the specific characteristics of each company, highlighting the importance of finding a balance between cost and vehicle availability, as suggested by the proposal of a mixed fleet. This integrated approach can offer flexibility and efficiency in logistical management, addressing challenges and optimizing financial results. The next topic will explore the Advantages and Disadvantages of Own Fleet to provide a comprehensive overview of the considerable options.

3.3 Advantages and Disadvantages of Own Fleet.

The decision-making process between internally managing one's own fleet or opting for outsourcing is of paramount importance for companies relying on transportation as an essential component for delivering their goods and services. This strategic choice involves a meticulous analysis of the advantages and disadvantages associated with each approach, necessitating a thorough evaluation before determining which option best meets the specific requirements and demands of your business, as will be presented throughout the topic.

When deciding on fleet management, companies face a complex dilemma that can significantly impact operational efficiency and financial results. According to Lima et al. (2018), internal management offers more direct and personalized control over transportation operations, providing a closer connection with the team and vehicles [6]. On the other hand, outsourcing offers the opportunity to leverage specialized knowledge, advanced technologies, and resources that may be challenging or costly to acquire internally. In summary, each approach has its own financial, logistical, and strategic implications, and the final decision should be made considering carefully the nature of the company's operations, efficiency goals, and the importance of logistics for customer satisfaction.

As highlighted by Faller (2020), other criteria have a direct influence on the operational scope. One of them is the productivity of the own fleet compared to the outsourced fleet. The second is related to the level of dependency on third parties that can be generated, especially when the company's operation is predominantly carried out through third parties [7].

One of the advantages of choosing your own fleet is that it gives you greater control over delivery schedules and routes. As stated by Verlangieri (2018), with your own fleet, you can plan and execute deliveries based on your own priorities, which can help you meet customer expectations and improve satisfaction. Additionally, having your own fleet offers flexibility to make changes based on customer needs, such as delivering goods to a specific location or rescheduling deliveries to accommodate special requests [8].

According to Verlangieri (2018, p. 02), in the article Logistics in Practice - Outsourcing or not the fleet affirms: "Companies that still have their own fleet advocate the idea of having more autonomy and control over their employees, regarding uniform appearance, sudden programming changes, involvement with business, then running the risk of missing the truck [8]."

One of the biggest challenges is the high capital investment required for vehicles, maintenance, and insurance. As mentioned by Monteiro et al. (2018), this can represent a significant financial burden for companies, especially those that are just starting out or operating on a tight budget. Another disadvantage is the increased responsibility for compliance with regulations and safety standards, which can be time-consuming and costly. Finally, managing your own fleet can limit your ability to scale up or down based on changes in demand, which can create inefficiencies and impact profitability [3].

It is undeniable that both independent professionals and transportation companies have a crucial interdependence, and the search for the ideal balance between own and outsourced fleet continues to be one of the major challenges faced by road cargo transportation companies in Brazil. According to Faller (2020), the challenging context faced by road freight transport companies highlights the vital importance of implementing efficient and strategically developed management to overcome the difficulties presented. In summary, in the face of this scenario, gaining a competitive advantage in a complex environment requires a well-defined strategy for the effective use of both own and outsourced fleet [7].

The main motivation for a company to invest in its own transportation equipment lies in the need to offer a customer service characterized by a standard of quality often unattainable through the hiring of external carriers. As highlighted by Lima et al. (2018), in an increasingly competitive market scenario, companies seek incessantly to raise the quality of their services. In addition to the emphasis on quality, the current market demands temporal efficiency, and in this context, the option for an own fleet gains relevance due to the greater control it provides in a logistics strategy [6].

Thus, one of the main considerations to be made by road cargo transportation companies lies in the choice between using an outsourced fleet or an own fleet. According to Faller (2020) conclusions, the option for a mixed approach also demands a decision on the percentages allocated to each type of fleet. This delicate balance can be summarized in four key factors: a) financial perspective; b) operations; c) labor impacts; and d) market. These key factors encompass four critical areas to be considered as essential variables for determining the appropriate model of use of own and/or outsourced fleet by road cargo transportation companies, namely: a) financial; b) operational; c) legal; and d) market [7].

According to Lima et al. (2018), as transportation operation scales up, the prospect of using an own fleet becomes more attractive than relying on third parties. This is due, first and foremost, to the considerable economies of scale inherent in transportation activities, where larger operations offer extended opportunities for cost reduction. Additionally, transportation operations are becoming increasingly complex in terms of technology and management. Being a smaller company implies having limited capacity to maintain specialized teams and make consistent investments in technology [6].

Therefore, in order to enhance accuracy in the decision-making process between using own or outsourced fleet, it becomes imperative to conduct a thorough analysis of the variables that influence this decision-making process, originating from the financial, operational, legal, and market spheres. As highlighted by Faller (2020), in the legal context, although Law No. 11.442/07 authorizes the outsourcing of the final activity through the subcontracting of self-employed individuals, considerable challenges remain. Labor Court decisions still consider outsourcing illicit and recognize employment relationships between self-employed carriers and transportation companies, consequently generating an atmosphere of legal uncertainty [7].

IV. DISCUSSION AND CONCLUSION

In light of the considerations presented, it is evident that the strategic management of road transportation, with a focus on the choice between proprietary and outsourced fleets, is a complex and strategic decision for companies. The pressing need to reduce costs demands a careful evaluation of financial and operational perspectives, as these areas play fundamental roles in the efficiency and quality of the service provided.

Financial analysis proves to be a crucial pillar in this decision-making process. The feasibility of investments, administrative and operational costs, as well as the impacts on financial results, are determining factors in the choice between proprietary and outsourced fleets. Furthermore, operational analysis, involving fleet control, third-party management, and transportation operations, becomes essential to maintain service quality and efficiency.

Decision-making must be permeated by a specific analysis of the company's reality, considering market nuances, transportation demand, and the business's own characteristics. The advantages and disadvantages of managing proprietary or outsourced vehicles need to be carefully weighed, highlighting the importance of effective management regardless of the choice made.

By delving into the analysis of freight transportation, transportation outsourcing, and the pros and cons of proprietary fleets, this work sought to provide a holistic view of the complexities of strategic road transportation management. Efficient management of these variables is crucial for the operational and financial success of companies in a dynamic logistical and economic scenario.

Strategic transport management is essential to optimize efficiency, reduce costs, and meet customer demands. Road transportation, as a crucial component, requires strategic choices in pursuit of competitiveness and efficiency. Strategic transportation logistics encompasses the management of various modes to ensure the efficient circulation of goods, emphasizing the vital importance of transportation in precise delivery, timely arrival, and suitable locations [9].

Transportation outsourcing, while common, presents challenges. While providing access to specialized knowledge and technology, it also involves risks such as loss of control and security threats. Cost-benefit analysis and careful vendor selection are crucial. Successful outsourcing requires effective planning, communication, and monitoring [10].

The choice between proprietary and outsourced fleets directly impacts operational efficiency. Internal management offers direct control, flexibility, and service quality but faces significant financial challenges. On the other hand, outsourcing provides efficiency and access to specialized resources but brings with it loss of control and security challenges.

In summary, the decision between proprietary and outsourced fleets requires a balanced and strategic approach. The pursuit of a competitive advantage involves considering financial, operational, legal, and market factors. The complexity of this choice highlights the importance of efficient and adaptable management capable of addressing challenges and exploring opportunities inherent in the contemporary logistical landscape. The balance between proprietary and outsourced fleets thus becomes an essential element for the sustainable success of road freight transportation companies [10].

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