Quality Management in Times of Pandemic
Case Study of S.R.A, a Freight Transportation Company

Felipa Lopes dos Reis, Dário Fernandes, and Gonçalo Casado

ABSTRACT

This study analyzes the quality of SRA LDA, a Portuguese company that provides automotive parts and transportation services and operates exclusively at the AutoEuropa factory. Despite the significant impact on the logistics sector, the company has managed to maintain its workforce and vehicle fleet while adjusting schedules and services to meet new social distancing measures and changes in product demand. SRA’s ability to maintain its services is a sign of its adaptability to any obstacles that arise. The company is committed to ensuring that its employees feel valued in their respective roles, thereby fostering a positive work environment, which is key to success. Companies like SRA have been and continue to be important in ensuring the continuity of operations for other companies, such as AutoEuropa, which is a major supplier of Volkswagen cars in the European market. In conclusion, the analysis of SRA LDA’s quality highlights a company that stands out for providing automotive parts and transportation services with a focus on customer satisfaction and maintaining a responsible and dynamic team.

Keywords: Cargo; management; quality; transportation.

I. INTRODUCTION

SRA is a company specialising in Goods Transportation, particularly for the automotive sector, and the rental of semi-trailers. It was founded in 2000 and has been providing services within the Portuguese automotive assembly line, connecting the factories within AutoEuropa. Currently, the company has 60 trailers, trucks, and light vehicles. Presently, the company has 60 employees, with only two of them being female, one of whom is the company’s financial director. Only 20% of the employees have permanent contracts. The average age of the workers is 35 years, and the average education level is high school (12th grade).

This company considers Quality as a decisive factor in competitiveness and customer focus, aiming to meet their needs and expectations. They have a responsible and dynamic team and commit to the following:

1. Engage in dialogue and work with the client to meet their requirements.
2. Meet the deadlines for the requested services, including the loading and unloading of transported goods.
3. Ensure the safety of transported goods, guaranteeing that they are delivered without damage.
4. Comply with the current legislation applicable to the company’s activities and other subscribed requirements.
5. Keep employees motivated and equipped with the necessary skills, involving them in the company’s policy.

In the SRA’s organizational chart, it is observed that there are few hierarchical levels. This business model and the organisation’s small size eliminate the need for many middle managers.

As for working hours, they vary from position to position. Truck drivers have rotating schedules and work in shifts, as the company’s vehicles operate 24 hours a day. Mechanics usually have a fixed working schedule from 9:00 to 18:00. However, they are also on standby and can be called outside of working hours to address urgent issues. Administrative staff have a working schedule from 9:00 to 18:00, and they are the only ones working remotely.

Throughout the COVID-19 pandemic, the company has implemented contingency plans. These include disinfecting the trucks after each employee’s use and implementing a rapid COVID testing protocol. The protocol is promptly activated whenever an employee shows symptoms of the virus.

A. State of the Art

Regarding the study of quality management by Juran, the authors (Godfrey & Kenett, 2007) argue that it is a simple, comprehensive, and pure management approach. Juran developed a trilogy: quality planning, quality control, and quality improvement. These processes are compared to financial management and are essential for managing the quality of both products and services, as well as processes. Quality planning involves the involvement of product, service, and process design to achieve new goals. Quality control ensures that these goals are met during operations. Quality improvement aims to achieve performance levels.
never before attained. It is important to understand that Juran’s process is limitless, as it encompasses quality planning for products, services, suppliers, distributors, support and maintenance, as well as evaluating the planning phase itself (Godfrey & Kenett, 2007).

In the study of quality management by Deming, the authors (Deming, W, 2018) argue that 90% of quality problems are associated with organizational leaders. Deming developed a set of 14 principles to improve quality and productivity (Deming, W, 2018).

Here are some principles:
1. Adopt a new philosophy.
2. Stop relying on mass inspection.
3. End the practice of choosing suppliers solely based on price.
4. Continuously improve the production and service system.
5. Provide appropriate training for employees.
6. Implement leadership.
7. Eliminate fear.
8. Break down barriers between departments.
9. Eliminate the practice of setting numerical targets.
10. Eliminate numerical production quotas.
11. Encourage teamwork.

According to the authors (Özden & Celik, 2021), freight transportation has transitioned from the logistics sector to becoming part of the services sector. As a result, long-term customer satisfaction is of great importance for companies. Service quality plays a significant role in achieving customer satisfaction in freight transportation services (Özden & Celik, 2021). In this sector, a relevant risk is distribution risk, as it relates to late delivery and quality risk. Some researchers suggest that accounting should extend beyond the cost associated with quality to meet customer satisfaction (Teklay et al., 2023).

Indeed, specific measures for customer satisfaction help companies identify corrective actions to address some of the causes related to freight transportation for customers (Teklay et al., 2023). The authors (Teklay et al., 2023) state that on-time arrivals will have an impact on the company’s financial performance shortly, as it will lead to increased sales of their services to respective customers. Therefore, poor service quality can affect future financial performance (Teklay et al., 2023). Financial performance is a way to assess whether a company is performing well or not, as there is an impact of competition between customer satisfaction and performance (Teklay et al., 2023).

B. The Emergence of the Covid-19 Virus in the Logistics Sector

According to the research conducted by the authors (Xu et al., 2022), Covid-19 has created problems worldwide, impacting the performance and profitability of various sectors. The transportation and logistics sector were considered one of the sectors that experienced significant losses (Xu et al., 2022). Both trade and the industrial sector were severely affected in terms of transportation and logistics, negatively impacting the GDP growth rate in all countries around the world, as mentioned by the authors (Xu et al., 2022).

The Covid-19 virus posed a significant threat to business operations globally, with initial fears focused on major global supply chains (Business & Research, 2021). The supply and distribution of materials and goods were affected by the pandemic restrictions imposed by governments, leading to disruptions in production capacity (Business & Research, 2021). The Covid-19 pandemic had a significant impact on the transportation industry, with notable social and environmental consequences. However, this impact also resulted in some positive effects, such as increased accessibility for producers and customers, as well as reduced placement costs (Business & Research, 2021). Covid-19 also affected the transportation industry’s ability to stock and sell essential materials for industrial production systems, leading to higher costs and delays in the provision of essential services (Business & Research, 2021). The author suggests that there was an urgent need for stakeholders to interrupt the logistics network to identify new suppliers and find alternative production locations (Business & Research, 2021).

To evaluate the quality factor of a company like SRA, it is particularly important to follow a well-structured methodology that takes into account the fundamental factors influencing the quality of the service provided by the company. SRA works directly with Volkswagen and, as they deal with the German work style that does not tolerate errors or delays, the company’s main objective is to expand its services to the maximum while maintaining professionalism and efficiency, offering a good service to its customers.

SRA, which operates with 13 clients, is an example of how the use of performance indicators can contribute to the success of an organization. With a team of 28 employees, 33 semi-trailers, and 28 motor vehicles, the company aims to offer the best service to its customers. Of the 13 clients operating alongside the assembly line, 8 have been working with the company for more than 15 years. This data is an important indicator of the company’s performance, as it indicates that it has been able to maintain a solid customer base over time, suggesting a high level of satisfaction with the service provided.

In July 2019, SRA received the quality certificate from TUVRheinland, a leading global certification organization. This certificate is granted after a detailed analysis of the company’s quality management system, evaluating its ability to meet established quality requirements. The evaluated requirements include the effectiveness of the management system, compliance with established standards, customer satisfaction, and continuous performance improvement. The fact that SRA has received this certificate is a clear indicator that the company has been striving to meet high standards of quality in its processes and services. This data is important not only to ensure customer satisfaction but also to enhance internal processes and maximize efficiency.

In summary, SRA has efficiently utilized performance indicators to evaluate its performance and ensure it is delivering the best possible service to its customers. The achievement of the TUVRheinland quality certificate is a clear indicator that the company is meeting high standards of quality in its processes and services. These indicators are
important to help the company maintain its loyal customer base, improve internal efficiency, and continue to offer high-quality services in the logistics market.

C. Analysis and Discussion of Results

S.R.A. is a company that works directly with AutoEuropa, one of the largest automobile factories in Portugal. AutoEuropa was founded in 1995 and has since been one of the major employers in the region, providing thousands of direct and indirect jobs. The factory currently produces around 1000 cars per day and is the main supplier of Volkswagen cars for the European market. During the pandemic, the company was able to maintain employment and vehicle production, despite the costs associated with the pandemic.

The logistics market has been significantly affected by the pandemic. Before the pandemic, the logistics sector was experiencing growth, driven by the increase in e-commerce and globalization. However, with the pandemic, there has been a decline in demand for freight transportation, especially in the automotive sector. Additionally, movement restrictions and social distancing measures have affected the ability of logistics companies to operate normally. During the pandemic, logistics companies had to quickly adapt to changes in market demand. SRA adjusted its schedules and services to meet the new social distancing measures and changes in product demand. Furthermore, the company had to enhance its safety protocols to ensure the safety of employees and customers.

SRA is an example of a company that was able to adapt to the changes required by the pandemic. The company managed to maintain its workforce and fleet of vehicles despite the challenges faced by the logistics sector. The company's ability to sustain its services is a sign of its resilience and adaptability.

Adapting a towing company to the COVID-19 pandemic may involve several changes in quality management, including:

1. Risk Assessment and Management

The company should assess the risks associated with its activities and processes and implement measures to mitigate those risks. This may include implementing safety protocols to minimize exposure to the virus, such as providing personal protective equipment for tow truck drivers and technicians and regular cleaning and disinfection of the tow vehicles.

2. Effective Communication

The company needs to establish clear and effective communication with its customers to ensure they understand the safety procedures in place and any changes to the services provided by the company. Additionally, communication with employees is vital to ensure that everyone is aware of the implemented safety measures and prepared to handle potential risk situations.

3. Process Adaptation

The company may need to adapt its customer service and towing processes to meet the demands of the pandemic. For example, the company may need to implement new processes to ensure the safety of customers and employees during service delivery, such as remote check-ins or the use of contactless technologies to process payments.

4. Training and Development

The company must ensure that its employees are properly trained in the necessary safety measures to protect themselves and customers. This may include training in hygiene and cleaning protocols, proper use of personal protective equipment (PPE), and other safety practices.

By implementing these changes, the company can ensure that its towing services remain of high quality and safe for all involved during the COVID-19 pandemic.

5. TUVRheinland Certification

TUVRheinland is a global certification company that provides inspection, auditing, and certification services in various areas such as quality, environment, health and safety, and information technology, among others. The TUVRheinland certification is a document issued by this company that attests that the certified organization meets specific requirements for the area it has been certified in. Obtaining a TUVRheinland certificate can be a way to demonstrate the quality and compliance of an organization's processes and systems, increasing the confidence of customers, partners, and investors. TUVRheinland is a globally recognized organization with over 150 years of experience in testing, inspection, and certification, and its certificates are widely recognized and respected worldwide. Para obter um certificado TUVRheinland, a SRA teve de seguir os seguintes passos:

To obtain a TUVRheinland certificate, SRA had to follow the following steps:

6. Identify the Type of Certification Desired

TUVRheinland offers a variety of certifications in areas such as quality, environment, health and safety, and information technology, among others. Identify the appropriate certification for your needs.

7. Preparation

Before applying for certification, SRA needed to prepare. This included developing procedures and systems that meet the certification requirements, as well as ensuring that documentation is complete and up to date.

8. Initial Audit

TUVRheinland conducted an initial audit to assess whether the processes and systems comply with the certification requirements. If the initial audit was successful, it moved on to the next step.

9. Follow-up Audits

TUVRheinland conducted periodic follow-up audits to ensure that SRA continued to meet the certification requirements.

10. Certification Renewal

The certification is renewed periodically to ensure that the company continues to meet the certification requirements.

11. Trends and Patterns

The logistics market is constantly evolving and in recent years has seen various trends and patterns that affect companies operating in this sector. Here are some of the key trends and patterns currently observed in this market:
12. Digitization
The adoption of digital technologies has been one of the major trends in the logistics market, enabling more efficient process management and improved customer experience.

13. Sustainability
The concern for sustainability has become an increasingly prominent trend in the logistics market. Companies have been striving to reduce their carbon emissions and adopt more sustainable practices in their operations.

14. E-commerce
The growth of e-commerce has significantly impacted the logistics market, as there is a need to meet the demand for faster and more efficient deliveries.

15. Omnichannel
Omnichannel refers to the ability to serve customers through different sales channels, such as websites and smartphone applications. This trend has required greater integration between different sales channels and increased efficiency in supply chain management.

16. Automation
Process automation has been a growing trend in the logistics market, with the adoption of robots and other technologies to automate repetitive tasks and improve operational efficiency.

17. Personalization
Personalization has been increasingly valued by customers, and the logistics market is no exception. Companies have sought to offer personalized solutions according to each customer's specific needs.

18. Collaboration
Collaboration between companies has been an important trend in the logistics market, with companies sharing resources and knowledge to improve supply chain efficiency as a whole.

These are just some of the main trends and patterns observed in the logistics market currently. Companies need to be aware of these trends and strive to adapt to market changes to remain competitive and offer increasingly efficient and personalized services to customers.

19. Implementing to Improve
Through an analysis of areas for improvement, it has been concluded that SRA needs to implement strategic actions that enhance its competitiveness and ability to meet global market demand. We have taken the liberty of elaborating on some suggested actions that can be implemented by the company:

20. Invest in Innovation and Technology
SRA can invest in new technologies and innovative solutions to improve its processes and offer differentiated services to its customers.

21. Develop the Brand
SRA can develop its brand and reputation in the market by investing in marketing and communication to improve its digital presence and public image.

22. Expand Global Presence
SRA can seek to expand its operations to other global markets by developing partnerships and collaborations with international companies.

23. Offer Personalized Services
SRA can start offering personalized services tailored to the specific needs of each customer, thereby improving its ability to meet market demand.

24. Invest in Sustainability
SRA can invest in sustainable solutions for logistics processes, such as utilizing renewable energy sources and implementing recycling and emission reduction practices.

25. Develop Talent
SRA can invest in the development of its team of employees by offering growth opportunities to improve their ability to innovate.

26. Monitor the Competition
SRA can closely monitor competitors, seeking to identify market opportunities and potential threats.

These are just some suggested actions that SRA can implement to become a top global company. It is important for the company to always be attentive to market changes and strive to adapt quickly and efficiently to remain competitive and relevant in the global market.

D. Final Considerations
The COVID-19 pandemic had a significant impact on many companies, including SRA LDA. Adapting to new health and safety measures and changes in consumer patterns and behaviour required great flexibility and resilience from this company. During this challenging period, they had to adjust their operations to ensure business continuity and the safety of their employees and customers.

Some of the measures taken by the company during the pandemic included implementing rigorous hygiene procedures, adopting digital technologies to minimize physical contact and enable social distancing, reducing capacity in vehicles, and being flexible in cancellation and rescheduling policies. Additionally, they changed their business models by offering delivery or logistics services to meet the new customer demands.

The successful adaptation of this company to the COVID-19 pandemic can be seen as an example of how resilience and innovation are essential for the survival and success of a business. The lessons learned during this difficult period can help companies prepare for future challenges and continue to provide essential services efficiently and safely.

CONFLICT OF INTEREST
Authors declare that they do not have any conflict of interest.

REFERENCES

