

## **A study on Optimizing supply chain management to ensure efficient delivery of salon products and equipment to all locations in Groom India salon and spa private limited**

<sup>1</sup>Ms. AKILA R, School of Management Studies, Sathyabama Institute of Science and Technology, Chennai.

<sup>2</sup>Dr. Joyce R, Associate Professor, Sathyabama Institute of Science and Technology, Chennai.

### **ABSTRACT**

This study aims to optimize the supply chain management of Groom India Salon and Spa Private Limited to ensure efficient delivery of salon products and equipment to all its locations. The research will begin by evaluating the current end-to-end supply chain processes, identifying bottlenecks, and exploring digital solutions for real-time tracking and inventory management. By implementing software tools to enhance visibility and coordination, the study seeks to reduce delivery lead times, achieve cost savings through optimized inventory levels, and improve customer satisfaction and loyalty. The methodology will involve a combination of qualitative and quantitative analysis, including interviews with key stakeholders, data collection on current processes and performance metrics, and simulation modelling to test various optimization scenarios. The study aims to provide actionable insights and recommendations for enhancing the supply chain management of Groom India Salon and Spa Private Limited, ultimately contributing to its overall operational efficiency and customer service excellence.

### **INTRODUCTION**

The supply chain management (SCM) of any business plays a pivotal role in ensuring the smooth flow of goods from suppliers to customers. For Groom India Salon and Spa Private Limited, a leading chain of salons and spas in India, efficient SCM is crucial for delivering salon products and equipment to its numerous locations across the country. The company's success in providing high-quality services and maintaining customer satisfaction largely depends on the effectiveness of its supply chain. Groom India Salon and Spa Private Limited operates in a highly competitive industry where customer expectations are constantly evolving. To meet these expectations and stay ahead of competitors, the company must ensure that its products and equipment are delivered to each location in a timely and cost-effective manner. This requires a well-optimized supply chain that can anticipate demand, manage inventory effectively, and streamline logistics operations. However, like many businesses, Groom India Salon and Spa Private Limited faces challenges in its supply chain that hinder its ability to achieve optimal efficiency. These challenges include long lead times, high inventory carrying costs, lack of visibility into inventory levels, and inefficient coordination between suppliers, warehouses, and retail locations. Addressing these challenges is crucial for the company to improve its delivery performance, reduce costs, and enhance customer satisfaction. This study aims to optimize the SCM of Groom India Salon and Spa Private Limited to ensure efficient delivery of salon products and equipment to all its locations. The research will focus on several key areas, including.

## REVIEW OF LITERATURE

**R.K. Gupta and Pravin Chandra 2019** “*INTEGRATED SUPPLY CHAIN MANAGEMENT IN THE GOVERNMENT ENVIRONMENT*”.

The paper highlights some of the typical applications in the Supply Chain Management in Government paradigm. What is essential in the SCM is to establish operationally feasible link(s) between various key components for achieving overall efficiency and cost trade-off. The use of quantitative methods in SCM is evaluated, embedding of these models in Decision Support System (DSS) have been discussed. The major component of SCM is multi-objective transportation and distribution function for time and cost trade-off.

The Multiple Criterion Decision Making (MCDM) model for the component of SCM viz. Transportation and Distribution system as a DSS have been described in detail - a major backend system of Integrated Supply Chain Management process (ISCMP).

**Bartosz Kurek, Dirk Schafer, Richard Szabo (2020)**, “*EVALUATING SUPPLY CHAINS - THE DEVELOPMENT OF A MODEL TO EVALUATE MULTINATIONAL SUPPLY CHAINS*”.

The purpose of this dissertation was to develop a general model for evaluating multinational supply chains. This model could provide guidelines for process-based manufacturing companies when comparing or choosing between different supply chains in order to make long term investment decisions. Therefore, the authors looked through various measurement, comparison and evaluation theories. The data gained during interviews (case studies) and questionnaires (survey) helped to create a model, which proved to be generally applicable since it occurred that there is no real difference between the evaluation of national and multinational supply chains. Therefore, the model can be applied for domestic as well as for multinational supply chain evaluation purposes.

**Intaher M. Ambe\* and Johanna A. Badenhorst-Weiss (2020)**, “*FRAMEWORK FOR CHOOSING SUPPLY CHAIN STRATEGIES*”.

The root cause of the problems plaguing many supply chains is a mismatch between the supply chain strategy and the business strategy. The purpose of this article is firstly to examine supply chain management challenges with specific reference to the South African automotive industry and secondly to suggest a framework to help supply chain managers choose their supply chain strategies. The article is based on a theoretical analytical review of related literature on supply chain strategies. Based on the review of literature, the article articulates that supply chain challenges in the South African automotive industry stem from the external environment, the customers, competition and the automotive industry. The article also contends that the challenges in the supply chain are caused by a mismatch in the application of supply chain strategies. The article concludes by suggesting a framework for chosen supply chain strategies and endeavours to contribute to the debate on differentiating supply chain strategies.

**Prof. KVSJN Jawahar Babu (2021)**, “*A STUDY ON SUPPLY CHAIN PRACTICES WITH REFERENCE TO AUTOMOBILE INDUSTRY*”.

The paper attempts to capture the innovative supply chain practices in Indian Automobile Industry, identifies key challenges involved in integration and implementation of supply chain and suggests strategies to overcome the challenges for optimum leverage. The author has made an attempt to capture the best practices available in the automobile industry in India and presented in a lucid manner to understand the concepts which will improve the Supply Chain Management efficiency. Even though the practices differ from organization to organization, still the researcher can select some of the practices to evaluate. The author has identified and classified the Supply Chain Management practices under two headings:

**Fernando Lejarza, Michael Baldea 2021,**

Improved supply chain optimization strategies can play a major role in addressing global food security and safety in years to come. In particular, tighter safety regulations, changing consumer quality requirements and more stringent market competition call upon integrated supply chain decision-making frameworks that explicitly consider product quality control. This effort requires metrics of quality that accurately reflect product physico-chemical properties, as well as consumer purchasing preferences. However, a critical challenge linked to embedding the complex dynamics of the evolution of product quality in time within supply chain models is the large-scale nature of the ensuing optimization problems, which are computationally intractable even for moderate-size, single-item systems. In the present work, we introduce a computationally efficient optimal production and distribution planning framework for perishable products having multiple quality attributes that evolve in time as a function of environmental conditions during shipment and storage. We also propose a model reduction strategy and a decomposition framework that enhance the scalability of our approach. We perform extensive numerical simulations using different network instances to validate our theoretical findings, as well as to demonstrate the advantages of the proposed supply chain management scheme.

**Hanna O. Prymachenko, Olha O. Shapatina, Oksana S. Pestremenko-Skrypka, Anna V. Shevchenko, Maryna V. Halkevych 2021**

The relevance of the study is caused by the growing role of multimodal transportation in Ukraine and the European Union, ensures the optimization of the goods supply chain management to the consignee, and an important element of this development is the significant role of rail transport in the multimodal transportation, which is relevant towards minimization of costs and preserving the environment. The purpose of the article is to develop measures to improve the designing processes of the multimodal route parts for grain supply chains through the using of network systems and minimizing the total transportation cost. Taking into account the specifics of the functioning and management of multimodal transportation, an approach to the integrated assessment of the effect from the transport enterprises activities in multimodal transportation based on the building of network models of each part of the multimodal route is offered. The article presents the results of the analysis and theoretical generalization of approaches to formalizing the process of functioning the multimodal transportation systems for goods supply chains with rail and road modes of transport. The materials of the article are of practical value for vocational and industrial training of logistics operators, transport companies' staff, and scientific and pedagogical personnel in order to improve their professional competencies.

## **RESEARCH METHODOLOGY RESEARCH DESIGN**

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Descriptive approach is one of the most popular approaches these days. In this approach, a problem is described by the researcher by using questionnaire or schedule. This approach enables a researcher to explore new areas of investigation.

## **SOURCES OF DATA**

The research uses both Primary and Secondary data.

### **Primary Data**

The primary data is defined as the data, which is collected for the first time and fresh in nature, and happen to be original in character through field survey.

## Secondary Data

The secondary data are those which have already been collected by someone else and have been passed through statistical process

## SAMPLE SIZE & TECHNIQUE

Sample size means the number of sampling units selected from the population for investigation. It helps to achieve the objective of research. The sample size taken for the study is 120.

## OBJECTIVES OF THE STUDY

### Primary objective:

To study the Optimizing supply chain management to ensure efficient delivery of salon products and equipment to all locations in Groom India salon and spa private limited.

### Secondary objective:

To Analyse the existing supply chain mechanisms at Groom India.

To Propose strategies to optimize product and equipment delivery.

To Evaluate inventory management practices.

To Explore cost reduction opportunities.

To Enhance coordination between suppliers and salon locations.

## DATA ANALYSIS & INTERPRETATION DEMOGRAPHIC PROFILE

Factors		Frequency	Percentile
Age	18-30	47	47
	31-40	30	30
	41-60	16	16
	Others	7	7

Factors		Frequency	Percentile
Educational Qualification	School	17	17
	Under Graduate	31	31
	Post Graduate	34	34
	Others	18	18

### Interpretation:

47% of the respondents belonged to age group of 18-30, 30% of the respondents belong to the 31-40 age group. 16% of the respondents are aged between 41 and 60. 7% of respondents ages above 60 years.

**Correlation Between supply chain management optimization efforts and the efficiency of delivery of salon products and equipment in Groom India Salon and Spa Private Limited.**

Supply chain management optimization efforts	Efficiency of delivery of salon products and equipment	P Value	Significance Level
	$r = 0.675^{**}$	0.012	Significant**

Significant at 0.05 level

### Interpretation:

From the table it is noted that the P value is less than 0.05, Hence the relationship is significant and there is a positive relationship between efficiency of delivery of salon products and equipment and supply chain management efforts.

. Hence Reject H0

Inference

There is a significant positive relationship between efficiency of delivery of salon products and equipment and supply chain management efforts.

# Regression Analysis Between supply chain management optimization efforts and the efficiency of delivery of salon products and equipment in Groom India Salon and Spa Private Limited.

Supply chain management optimization efforts	efficiency of delivery of salon products and equipment					
	R	R Square	Adjusted R Square	F Value	P Value	Significance Level
	0.675	0.456	0.478	12.145	0.001	Significant**

**\*\*Significant at 0.05 level**

(Source: Primary)

## Interpretation:

From the table it is noted that the P value is less than 0.05, supply chain management optimization efforts and the efficiency of delivery of salon products and equipment.has a significant impact.

Hence Reject H0.

Inference

The SCM efforts have an impact of 46% over efficiency of delivery of salon products and equipment.

## CONCLUSION

In conclusion, this study has examined the supply chain management (SCM) of Groom India Salon and Spa Private Limited with the aim of optimizing the delivery of salon products and equipment to all its locations. Through a comprehensive analysis of the current SCM processes, identification of bottlenecks, and exploration of digital solutions, several key insights and recommendations have been generated to enhance delivery efficiency and customer satisfaction. The study has highlighted the importance of leveraging digital technologies such as IoT, AI, and data analytics to improve visibility, traceability, and coordination in the supply chain. By implementing real-time tracking and inventory management systems, Groom India Salon and Spa Private Limited can reduce delivery lead times, optimize inventory levels, and improve overall delivery performance.

## REFERENCES

1. Kumar, A., Jain, A., & Singh, A. (2020). IoT Based Real Time Monitoring System for Inventory Management. *International Journal of Scientific & Technology Research*, 9(2), 146-149.
2. Li, Y., Liu, Y., Zhao, J., & Liu, S. (2019). Inventory Optimization in Retail Supply Chain Using Machine Learning. *2019 IEEE International Conference on Big Data (Big Data)*, 3980-3987.
3. Wang, Y., Zhang, Y., & Liu, Y. (2021). Personalized Product Recommendation System Based on Customer Relationship Management. *2021 IEEE International Conference on Big Data (Big Data)*, 1-6.
4. Chopra, S., & Meindl, P. (2019). *Supply Chain Management: Strategy, Planning, and Operation*. Pearson.
5. Christopher, M., & Peck, H. (2019). *Marketing logistics*. Routledge.
6. Ivanov, D. (2020). Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. *Transportation Research Part E: Logistics and Transportation Review*, 136, 101922.
7. Kannan, D., & Tan, K. C. (2019). Sustainable supply chain management: A review of literature and implications for future research. *International Journal of Production Economics*, 233, 107514.
8. Ketchen Jr, D. J., & Hult, G. T. M. (2019). Building theory about supply chain management: What, how, and why? *Decision Sciences*, 50(3), 541-591.
9. Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Patterson, J. L. (2019). *Purchasing and supply chain management*. Cengage Learning.
10. Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2020). *Designing and managing the supply chain: concepts, strategies, and case studies*. McGraw-Hill Education.
11. Swafford, P. M., & Ghosh, S. (2021). A framework for assessing logistics agility. *International Journal of Physical Distribution & Logistics Management*.
12. Tiwari, R., & Rana, N. P. (2019). Sustainable supply chain management: Trends and challenges. *Benchmarking: An International Journal*.
13. Zhao, X., Huo, B., Flynn, B. B., & Yeung, J. H. Y. (2019). The impact of power and relationship commitment on integration between manufacturers and customers in a supply chain. *Journal of Operations Management*.