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Research Article

AN EMPIRICAL STUDY ON LOGISTICS TRENDS IN FREIGHT TRANSPORT IN COIMBATORE

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Abstract

Freight transport involves the movement of goods from one place to another. This can include a wide range of items such as commercial goods, commodities, and bulk merchandise. Trucks, trains, ships, and planes are all used to transport these goods to various markets, allowing for global commerce to thrive. Without efficient freight transport, supply chains would come to a standstill, affecting both industries and consumers. Businesses must have efficient supply chains to succeed. The development of trade networks creates a need for value-added logistics management and gives rise to various trends in logistics and supply chains. These trends allow for greater expertise and flexibility in logistic operations, covering larger geographical areas while reducing operating costs and improving the quality of service. Freight transport demand is derived from the activities required to move goods from production locations to consumption locations, including employment, logistics, and transportation. By incorporating logistics into freight transport demand models, we can better predict the impact of changes in logistics systems on future transport flows estimations of interaction costs and predictions of changes in spatial patterns of freight transport flows. In recent years, there has been a growing focus on freight modeling and research aimed at incorporating logistics into these models. This study specifically examines the trends and challenges of logistics in freight transport, as well as the prospects of logistics.

Key Words: Logistics, Freight, Transport, Modes

Introduction

In recent decades, third-party logistics (TPL) has gained significant attention from both scholars and businesses. However, there is a lack of consensus among academics and researchers regarding the exact nature of TPL relationships. To help logistics managers, researchers, and transportation planners comprehend and define the basic viewpoints of logistics, its various applications, and the links between logistics and transportation, Tseng et al. (2005) conducted a study. Krishnasamy (2021) highlights the increasing global significance of outsourcing logistics functions. Recognizing that competitive advantage stems not only from the product but also from the delivery process, logistics has evolved from a traditional backroom function to a strategic boardroom function. To effectively and efficiently manage logistics activities, companies have several options third method, which involves contracting with outside suppliers to handle logistics, is gradually gaining popularity.

Perego et al (2011) presents a comprehensive framework aimed at developing transport policies that effectively reduce the energy requirements of road freight transport in the future categorizing research on information and communication technology for logistics and freight transportation based on a variety of themes and methodologies they believe that this review accurately represents the body of research on ICT for logistics and transportation companies published within the specified timeframe. Therefore, readers can have confidence in the assessments made in this study.

Tavasszy et al (2012) cutting-edge advancements in incorporating logistics factors primary emphasis lies in understanding the key drivers of service and cost in logistics networks and their impact on freight transport. Instead of following the traditional 4-step modeling approach, we adopt a conceptual framework that offers a more comprehensive perspective and find that supply chain choice model, hypernetwork models, and spatial computable general evenness representations are some of the potential areas for freight modeling that fall within this paradigm.

Evangelista et al (2013) study plays a part in small- and medium-sized third-party logistics providers' innovation process for logistics. The study's conclusions provide practitioners with helpful pointers for integrating ICT into the logistics innovation process in an efficient manner. The results also help ICT providers create solutions that are in line with the requirements of small 3PLs.

Rajesh et al (2023) *conducted a research study in 2023 with the primary objective of comprehending the various challenges and factors that impact the Freight Forwarding Business within organizations engaged in the Forwarding and distribution of shipper Cargo.* A freight forwarder, whether an individual or a company, coordinates shipments for individuals or corporations, ensuring that large orders from manufacturers or producers reach the market or final point of distribution. These forwarders collaborate with carriers to enable the efficient transportation of commodities. They establish contracts with asset-based carriers to transport a wide range of cargo, including raw agricultural products and manufactured goods. The section of supply chain management known as logistics management, or supply chain management, is responsible for strategically planning, carrying out, and overseeing the efficient and effective movement and storage of products, services, and pertinent data between the point of origin and the point of consumption to satisfy customer demands.

Evangelista and Sweeney (2014) paper include a review of previous research on this topic approach to ICT usage, with the adoption of isolated applications. The primary obstacle

to the adoption of ICT is the financial risk involved with investing in technology and human resources while factors such as improving service levels and the reliability of transport operations act as stimulants. The results suggest that the potential benefits of technology have not been fully utilized, and there is a cautious approach to ICT adoption, hindering its full integration into business processes.

A sophisticated platform for freight transportation that is more effective, dependable, adaptable, and sustainable is provided by multimodal transportation. There are fascinating applications of operations research in the planning of such a complex system. Steadie Seifi et al (2014) with an emphasis on the conventional strategic, tactical, and operational planning levels, introduce the pertinent models and the methods by which they have been constructed. We offer an outlook on potential future research avenues as we wrap up our review study.

Guastaroba et al (2016) emphasize the importance of consolidation of freight and merging operations for transportation companies. These operations play a crucial role in reducing costs and enhancing the level of service offered to customers. Intermediate facilities or terminals situated between the origins and destinations of freight are key in facilitating these operations. This survey examines the significant contributions made by the literature on operations research while tackling planning issues in freight transportation that are influenced by the presence of intermediate facilities. Specifically, the focus is on tactical planning issues that arise in this context. Three categories of problems involving intermediate facilities are identified issues with service network design, trans-shipment, and vehicle routing. For each problem category, an overview of the main variants, the methods employed for their solution, and potential research directions are provided.

Mrazovic (2017) urban freight transport is often considered the least sustainable component of urban mobility. The restricted infrastructure for traffic and rising demands in densely populated urban areas result in frequent delivery runs using smaller freight vehicles. This leads to increased traffic congestion and negatively impacts the quality of life for urban populations. To address these issues, data-driven optimizations are crucial in maximizing the use of existing urban transport infrastructures and minimizing the negative effects of freight deliveries on cities. Data-driven approaches to understanding urban delivery areas and freight transportation networks our goal is to gain insights and improve the efficiency of freight distribution processes the availability patterns of different areas, and the underlying traffic behaviour to better understand the trends in urban freight transport. Utilizing these identified patterns, can predict the availability of loading/unloading areas, which opens up new

possibilities for delivery route planning and more effective management of freight transport infrastructures.

The main goal of Macioszek et al. (2017) review is to examine the findings of the analyses conducted within this scope, which include the analyses of the unique characteristics of the current infrastructure and the anticipated growth of the logistic infrastructure in the Silesian Province, as well as the development directions suggested in strategic documents at the national and regional levels, such as the development strategy of the Silesian Province, as well as projects about transportation and freight transport logistics. Additionally, some findings from an accessibility analysis of the logistics hubs that are currently in use in the Silesian Province are shown.

Bektaş et al (2019) through the application of diverse optimization models and solution methodologies, the area of Operational Research (OR) has continued to contribute to mitigating the negative repercussions, especially in recent years. The fundamental ideas and a summary of the current literature on "greening" freight transportation with OR-based planning approaches are provided in this paper. While other modes are also briefly covered, the focus is mostly on two widely utilized modes for freight transportation worldwide: road (including urban and electric vehicles) and sea transportation.

Kumar et al (2019) have highlighted the significant impact of globalization, the elimination of trade barriers, lower tariffs, and industrial revolutions, coupled with technological advancements, on the freight transportation industry. It is projected that trade-related international freight will experience a substantial growth of 4.3 times by 2050, compared to the levels in 2010. Moreover, there will be a shift in trade patterns, with one-third of trade occurring among developing economies in 2050. While there are numerous opportunities arising from a growing population, increased consumption rates, the emergence of new e-commerce players, just-in-delivery supply chains, and reverse logistics, the freight transport sector still holds untapped potential. These challenges include congested roads, disruptions caused by unexpected events, low utilization of fleet capacity, inadequate infrastructure, congested and inefficient ports, inflexibility in meeting new demand due to fixed routes, and high levels of noise and air pollution. The current processes not only harm the environment but also impact the quality of life.

Kolasińska et al (2019) highlight the significant impact of technologization and digitization on the dynamics of variability in today's world. Economy 4.0 has brought forth new technologies that have permeated various aspects of our modern society. The success of

modern economies now hinges on their ability to implement and disseminate innovative solutions based on these technologies. Through the use of the idiographic method, the authors have gathered relevant information to showcase the transformative impact of new technologies on the transportation sector. By critically analysing various documents, literature, and digital sources, they have identified the advantages of integrating new technologies in transportation.

McKinnon (2019) understanding that freight transport plays a crucial role in logistics systems has brought about a new managerial perspective, emphasizing the inter-relationship between transport and business processes. This heightened recognition has also led to an increased focus on freight transport within government circles, resulting in a demand for policy-relevant research on various topics. One area of research pertains to the growth of freight traffic at both national and global levels, as well as the challenges posed by disruptive forces that are difficult to incorporate into existing forecasting models. Lastly, there is a growing interest in exploring the potential transformation of last-mile deliveries through technological and business innovations. Across these three subject areas, numerous pressing research questions require immediate attention and answers.

Vasantha and Meena (2019) purpose of the current study was to ascertain the difficulties that freight forwarders encounter daily. They encounter difficulties for a variety of reasons, which may be the cause of their failures. Sometimes obstacles prevent them from meeting the needs of the customer. Government policies and regulations (GST), importers and exporters, port authorities, products warehousing, insurance company red tape, customs clearance, liner firms, infrastructural issues, etc. are the main causes of the hurdles encountered.

By taking into account decisions made in previously uncharted territory in logistics, such as marketing or forecasting and planning for logistics systems, Tavasszy et al. (2020) freight modeling methods from the literature can be extended. Organized catalogue of these domains, which scholars and practitioners of transport modeling can utilize to further those models of transportation that begin with agent decision-making.

Huber et al (2020) the growing significance of logistics and its impact on transportation processes have been taken into account when predicting demand for freight transit. Transport logistics hubs, on the other hand hubs largely utilized for trans-shipment and without storage capabilities appear to be underappreciated in most freight models, despite

their critical role in freight transportation. At the moment, it is unclear which models take transit logistics hubs into account and how.

Angelelli et al (2020) study focuses on freight forwarding when air travel is the primary mode of transportation. The issue has just lately been brought up in the literature, and it has intriguing real-world implications given the recent surge in air freight transportation as a result of e-commerce customers' demands for quick delivery. In this research, we offer a metaheuristic algorithm based on the solution of a set-partitioning formulation and the creation of feasible routes from origins to destinations. Real data-based examples from the literature are used to perform computational tests. The outcomes demonstrate that, in realistic processing times, the metaheuristic can provide good solutions for large-size situations.

Inkinen and Hämäläinen (2020) in all areas of transportation, low-emission logistics are now anticipated and sought, especially in the EU. In inland transportation, heavy-duty trucks (HDTs) are a major source of pollution and pollutants. Their importance stems from the fact that truck transportation is typically the only practical way to link hinterlands and ports in multimodal transport chains. The primary difficulty in ecologically responsible freight transportation is the emission efficiency of diesel engines, which power the majority of trucks. The technical characteristics, fuel options, and emission kinds utilized in freight logistics are the main topics of this article.

Archetti (2020) the optimization issues faced by freight forwarding companies have drawn little attention from the scientific community, despite their prominence in worldwide multimodal transportation. In addition, a comparison between the discovered solutions and the company's solutions is made to assess the model's efficacy and practicality. Lastly, consider the prospect of building a new warehouse to improve service management, and we assess the associated advantages.

Engholm et al (2021) in this research paper, the authors analyse the potential effects of the widespread implementation of driverless osculates on transportation patterns and system costs within Sweden's national freight transport system. They conduct a sensitivity analysis by varying the costs of driverless truck operations and also considering different parts of the road network where these trucks can operate. The findings suggest that the extent of these impacts greatly depends on the cost of driverless trucks and their ability to engage in international cross-border transport. The study concludes that driverless trucks could significantly increase the demand for road transport, leading to a shift from rail and sea transportation. This emphasizes the importance of decarbonizing road transport to meet

climate targets. Future research should focus on evaluating societal costs associated with driverless trucks, including organization reserves and undesirable externalities such as increased CO2 emissions and congestion.

Krishnasamy (2021) findings show that although employing 3PL services significantly and favourably affects an organization's commercial presentation, third-party logistics utilization by businesses is still relatively new. Based on overall satisfaction and the influence on business objectives, logistics system performance, and customer satisfaction. To close this gap, the Callefi et al article from 2022 assesses the readiness level (RL) for these skills. Our multi-method approach consists of three steps: a systematic literature review (SLR) to discover the capabilities provided by technology; a study of secondary data to confirm the real-life impact (RL) of each capability found in the SLR; and, lastly, expert validation of the data. This study adds to the body of information on road freight conveyance by giving experts and scholars a summary of the possibilities made possible by technology.

Filipina et al (2022) Intermodal transportation is becoming more and more important in today's global economy. This mode of transportation should be built with efficiency in mind, taking into account the needs of both customers and service providers. As a result, innovations are made in many sectors of this industry to raise business entrepreneurship, enhance client satisfaction, and enhance the way it operates. It was feasible to rank the areas that respondents believed were crucial for introducing innovations in multimodal transportation. Analysis was done on the viewpoints of several multimodal transport practitioner groups. The growth of telematics and information technologies, as well as the automation of handling procedures, were determined to be the most crucial for the adoption of advances in multimodal transportation.

Fulzele and Shankar (2022) the incorporation of sustainability into the freight transportation (FT) sector has garnered increasing interest on a global scale in recent times. The adoption of sustainability best practices serves as a vital connection between freight transporters' sustainable performance and the integration process. Using an integrated strategy that creatively mixes intuitionistic fuzzy numbers with the graph theoretic and matrix approach, these behaviours are further defined and prioritized. Focus group meetings were used to gather expert viewpoints for the quantification and prioritizing procedures. Contrary to popular belief, the study's findings indicate that the adoption of green technology, multimodal freight transportation, and top management commitment have a greater overall impact on the performance of the freight organization. One of the few studies that could serve

as a manual for managers and other decision-makers looking to incorporate sustainability into freight operations is the one being suggested. The suggested integrated model is distinctive in that it assesses the effects of sustainability practices both positive and negative on the operational, technological, social, environmental, and economic performance of freight transporters.

Gayialis et al (2022) the system utilizes a set of OR algorithms enabled by information technologies (IT) to support logistics operations effectively. Its primary focus is on vehicle route and schedule optimization, taking into account delivery window considerations, customer requirements, street network characteristics, the necessity of dynamic routing and rerouting, and urban traffic congestion difficulties. The article presents the system's architecture, its development methodology, its basic functionality, the developed algorithms, as well as the adopted information technologies.

Kumar and Anbanandam (2022) the freight logistics process is impacted by freight transportation operations. Comparatively speaking to the economic process, the processes linked to environmental and social sustainability are inadequately managed. Measuring present sustainability practices should improve the quality of environmental and social sustainability (EnSoS) practices; concurrently, sustainability barriers should be recognized.

Archetti et al (2022) highlight the continuous growth of international trade and the subsequent increase in demand for transportation services due to globalization. As a result, multimodal transportation has emerged as a necessary choice for intercontinental shipments, evolving from the traditional unimodal road transportation. The field of transportation optimization has always presented a stimulating yet challenging environment for the application of optimization techniques. With the growing number of commodities being transported globally each year, the interest and importance of operational research methodologies have significantly increased to effectively manage complex transportation systems. The literature on multimodal transportation optimization is currently thriving, offering a plethora of interesting and multifaceted problems for researchers to explore. Additionally, the emergence of new technologies poses new challenges that researchers must address. In light of this, the objective of this literature review is to provide a comprehensive overview of the current state of the art in multimodal freight transportation optimization, specifically focusing on the various combinations of transportation modes.

Naumov et al (2023) object-oriented programming techniques were utilized to create software specifically designed for computer simulations of forwarders operating in the

transportation services market. The primary tool for processing the numerical findings of experimental investigations was regression analysis. The experiment's findings made it possible to ascertain the high-quality dependencies between the number of requests fulfilled and the number of dispatchers engaged in fulfilling those requests in both the scenarios where decisions are made traditionally and when the operators' choices are supported by specialized software.

Köhler and Brauer (2023) this study discusses opportunities for innovative freight transport models as well as trends, knowledge, and policy analysis needs. The modeling techniques for sustainability transitions provide broad ideas for dealing with systemic and structural change. There are numerous chances to mix qualitative and quantitative analyses when developing scenarios and qualitative foresight analysis with stakeholders to create views of future developments.

Rajesh et al (2023) the study's target population included key management staff, employees, and representatives of the company's central distribution center, which is located in Chennai's industrial district. Analysing the issues that freight forwarders encounter from airlines, businesses, and individual clients is crucial. Through examining and contrasting the many issues that freight forwarders encounter. Finding the answers to prevent issues and guarantee the smooth operation of business is simple.

Jacyna-Gołda et al (2023) multimodal freight transport to minimize the time and cost of transportation services necessitated honing the mathematical machinery using the consecutive move approach and connecting its advancement to particular supply networks.

Methodology

Primary data-gathering procedures yield extremely accurate data that are specific to the purpose of the research. The original is affected when primary data are gathered for the first time. The questionnaire method was used in this study to directly obtain data from the transport owners or managers. Data that is gathered by a party other than the primary user is referred to as secondary data. Social science researchers frequently employ secondary data from government agencies, records kept by organizations, data initially gathered for other studies, and censuses. The secondary data had previously been gathered. It contained information from both external and internal sources, such as books, journals, periodicals, bulletins, and the Internet, as well as company profiles. The number of sampling units chosen for investigation from the population is referred to as the sample size. This study has 200 participants in its sample. Quota sampling is the method of sampling used in this

investigation. A Google Form-created questionnaire served as the study's research tool.

Analysis

Frequency of Freight Transport

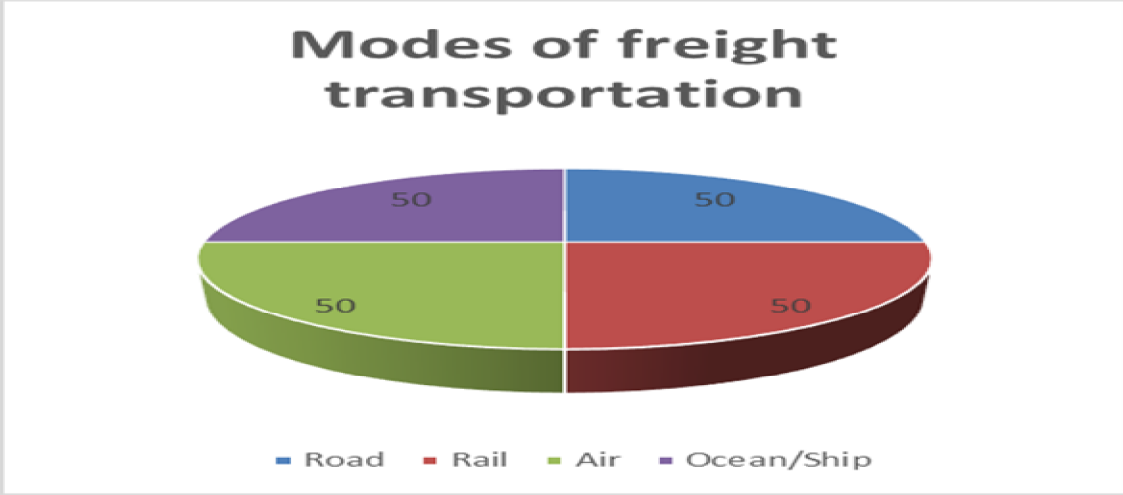

Figure 1: Modes of Freight Transportation

One-Sample Kolmogorov-Smirnov Test

C - Challenges of freight transport

C1 - Importers or exporters

C2 - Port authorities

C3 - Warehousing of the goods

C4 - Insurance companies

C5 - Customs clearance

C6 - Infrastructure problems

C7 - Lack of Domain Expertise

C8 - Billing Discrepancies

Table 1: One-Sample Kolmogorov-Smirnov Test

		C1	C2	C3	C4	C5	C6	C7	C8
Normal Parameters [a,b]	Mean	4.03	4.60	4.59	4.68	4.65	4.64	4.57	3.76
	Std. Deviation	1.026	.608	.660	.501	.541	.628	.639	1.492
Most Extreme Differences	Absolute	.255	.390	.378	.429	.414	.398	.371	.329
	Positive	.173	.258	.269	.261	.260	.281	.249	.203
	Negative	-.255	-.390	-.378	-.429	-.414	-.398	-.371	-.329
Test Statistic		.255	.390	.378	.429	.414	.398	.371	.329
Asymp. Sig. (2-tailed)		**.000[c]**	**.000[c]**	**.000[c]**	**.000[c]**	**.000[c]**	**.000[c]**	**.000[c]**	**.000[c]**
a. Test distribution is Normal.									
b. Calculated from data.									
c. Lilliefors Significance Correction.									

Table 1 denotes the One-Sample Kolmogorov-Smirnov Test, Normal Parameters of eight variables, indicates C1 to C8, Mean ranges from 3.76 to 4.68. Std. Deviation 0.501 to 1.492. Challenges of freight transport variables test statistics value Importers or exporters 0.255, Port authorities 0.390, Warehousing of the goods 0.378, Insurance companies 0.429, Customs clearance 0.414, Infrastructure problems 0.398, Lack of Domain Expertise 0.371, Billing Discrepancies 0.329. Asymp. Sig. (2 tailed) values are all the variables specified the 0.000.

Friedman Test

Table 2: Logistics Trends - Friedman Test

Logistics trends	Mean Rank	F	Extraction
Warehouse simulation	3.16	1.048	0.660
Logistics flexibility	4.39	1.948	0.662
Robotic process automation	3.10	0.424	0.644
Data mining	4.25	0.739	0.628
Cloud computing	3.45	0.072	0.647
Drones and logistics	4.61	1.060	0.747
Green logistics	5.05	0.453	0.621

Test Statistics	
N	187
Chi-Square	211.498
Degrees of Freedom (DF)	6
Asymp. Sig.	.000
a. Friedman Test	

Table 2 indicates the logistics trends, highest mean rank is 5.05 in green logistics, and the lowest mean rank 3.10 is in Robotic process automation. The f value of logistics trends

from low to high is 0.072 to 1.948. Chi-square is 211.498 and the difference is 6 and the Asymp. Sig. 0.000.

Discriminant Analysis

Table 3: Discriminant Analysis - Eigenvalues

Eigen Values				
Function	Eigen Value	% of Variance	Cumulative %	Canonical Correlation
1	0.058[a]	63.5	63.5	0.235
2	0.017[a]	18.8	82.3	0.130
3	0.016[a]	17.7	100.0	0.127

Discriminant Analysis has three functions, the first function denotes the Eigenvalue 0.058, the Second function denotes the Eigenvalue 0.017, and the third function denotes the Eigenvalue 0.016. Percentage of Variance 63.5%, 18.8%, and 17.7%. Canonical Correlation mentioned that the First factor is 0.0235, Second denotes the 0.130, and finally 0.127.

Wilks' Lambda				
Test of Function(s)	Wilks' Lambda	Chi-square	DF	Sig.
1 through 3	.914	17.297	30	.969
2 through 3	.967	6.389	18	.994
3	.984	3.104	8	.928

Standardized Canonical Discriminant Function Coefficients			
	Function		
	1	2	3
Government rule	-0.618	-0.137	0.018
Growth of international goods transport	0.509	-0.306	-0.177
Improvement of services	0.253	0.516	-0.594
Revolution of logistics operation	-0.628	0.271	-0.031
Shorter product life cycle	1.029	-0.045	-0.262
Improvement of logistics facilities	0.788	0.258	0.593
Channel cooperation between companies	0.070	-0.218	0.227
Specialized logistics delivery	0.674	0.177	0.524
Logistics centres	-0.432	0.556	-0.063
Freight transport	-0.007	-0.110	0.467

Standardized Canonical Discriminant Function Coefficients variables are Government rule, Growth of international goods transport, Improvement of services, Revolution of logistics operation, shorter product life cycle, Improvement of logistics facilities, Channel cooperation between companies, Specialized logistics delivery, Logistics centers, Freight transport.

Structure Matrix			
	Function		
	1	2	3
Channel cooperation between companies	.314*	.095	-.050
Logistics centres	-.156	.628*	.129
Improvement of services	.326	.573*	-.446
Improvement of logistics facilities	.424	.486*	.271
Growth of international goods transport	.294	-.449*	-.102
Revolution of logistics operation	-.147	.389*	-.193
Shorter product life cycle	.256	.139	-.551*
Specialized logistics delivery	.103	.052	.482*
Freight transport	-.174	.027	.379*
Government rule	.132	-.051	-.217*

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions.

Variables are ordered by the absolute size of correlation within the function.

*. The largest absolute correlation between each variable and any discriminant function

Functions at Group Centroids			
Modes of Freight Transportation	Function		
	1	2	3
Road	-.042	.105	-.192
Rail	.082	.151	.156
Air	-.352	-.108	.049
Ocean / Ship	.311	-.148	-.012
Unstandardized canonical discriminant functions evaluated at group means			

Functions at Group Centroids denote the Modes of freight transportation, Road positive 0.105, Rail 0.082, second value 0.151, third value 0.156. Air freight transportation third variable 0.049. Ocean / Ship 0.311.

Recommendations and Conclusion

Improving transport efficiency in logistics is a complex undertaking that necessitates an inclusive tactic to reduce transportation costs and time, enhance customer satisfaction, and optimize overall logistics operations. To achieve these objectives, businesses should invest in cutting-edge software and technologies, closely monitor individual orders and shipments, and explore opportunities for automating supply chain tasks. The Transportation Management System (TMS) is an indispensable tool in any company's arsenal, offering numerous benefits as outlined above. Moreover, the TMS solution can be customized to meet the precise necessities of your organization, enabling maximum efficiency and gains. Therefore, it is

highly recommended to acquire a TMS at this opportune moment. Additionally, focusing on selecting reliable suppliers and logistics providers, fostering supply chain sustainability, and ensuring seamless information flow within your organization can significantly contribute to cost reduction and heightened customer satisfaction. It is important to consider the potential impact of implementing a new supply chain management system on operational costs, service provision, working capital, and, most importantly, company revenue.

Logistics companies will place a greater emphasis on automation, addressing labour shortages, and implementing real-time tracking systems to optimize supply chain management. The logistics sector is expected to witness further advancements in 2024 to keep pace with global economic and technological developments. Logistics leaders must embrace new technologies for streamlining manual processes, adopting digital freight marketplaces, and utilizing autonomous vehicles to maintain their lowness on a worldwide measure. While these trends will continue to shape the industry in 2024, the successful implementation of emerging technologies will require their integration with existing solutions and infrastructure. Logistics processes must stay capable of incorporating processes such as EDI load tenders, while also exploring how future technologies to improve profit margins. By doing so, businesses can develop a next-generation framework that builds upon their previous technological investments, while also fostering the growth of big data, IoT, and omni-channel solutions, positioning themselves for the future. The events of 2020, 2021, and 2022 have also severely impacted the logistics sector as well as the overall supply chain. While the logistics landscape remains uncertain and prone to disruption, it also presents opportunities for digital transformation. Companies that thrive in this environment and beyond will embrace a combination of the top trends in the logistics industry, equipping themselves with the resilience needed to withstand supply chain shocks. As your company navigates through 2024, it is important to consider how the emergent tendencies in logistics may impact your business.

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