



DISTRIBUTION MANAGEMENT IN SUPPLY CHAIN PROCESS

K. Kavin* & Dr. K. Veerakumar**

* PG Scholar, Sakthi Institute of Information and Management Studies, Pollachi,
Coimbatore, Tamilnadu

** Assistant Professor, Sakthi Institute of Information and Management Studies, Pollachi,
Coimbatore, Tamilnadu

Cite This Article: K. Kavin & Dr. K. Veerakumar, "Distribution Management in Supply Chain Process", International Journal of Current Research and Modern Education, Volume 8, Issue 2, July - December, Page Number 26-28, 2023.

Copy Right: © IJCRME, 2023 (All Rights Reserved). This is an Open Access Article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract:

Distribution Management plays a pivotal role in modern supply chains, facilitating the movement of goods and services across vast networks of highways and roads. This provides an overview of the challenges and opportunities in this critical sector of the transportation industry. The challenges in roadway logistics transport include traffic congestion, infrastructure maintenance, environmental concerns, and the need for improved safety measures. These issues pose significant obstacles to the efficient and sustainable movement of goods.

Introduction:

Roadway logistics transportation refers to the movement of goods, materials, and people via road networks to facilitate commerce and transportation. It plays a vital role in supply chains and the overall economy. Roadway logistics involve the planning, coordination, and execution of transportation activities using various vehicles such as trucks, vans, and cars. This mode of transportation offers flexibility, accessibility and last-mile connectivity, making it essential for the delivery of products to businesses and consumers. Roadway logistics encompasses aspects like route optimization, vehicle maintenance, driver management, and the use of technology to enhance efficiency and reduce environmental impact. A dynamic field that adapts to evolving consumer demands, regulatory changes and technological advancements to ensure the smooth flow of goods and people on our roadways. Roadway logistics involves various aspects, including route optimization, vehicle selection, scheduling, and tracking, all aimed at ensuring efficient and timely delivery while minimizing costs. The advent of technology and data-driven solutions, roadway logistics has become increasingly sophisticated, enabling businesses to streamline their operations and meet the demands of today's dynamic markets.

Objectives:

- Minimize transportation costs and delivery times
- Ensure safety, reliability, and sustainability of transportation operations

Applications of Learning:

Roadway logistics transportation plays a crucial role in various industries and applications. Some of its key applications include:

- **Goods Distribution:** Roadway logistics are essential for the distribution of goods from manufacturers to wholesalers, retailers, and consumers. Trucks and vans are commonly used to transport a wide range of products, from groceries to electronics.
- **E-commerce Delivery:** The growth of online shopping, roadway logistics are critical for delivering packages to customers' doorsteps. Companies like Amazon rely heavily on road transportation for last-mile delivery.
- **Supply Chain Management:** Roadway logistics, an integral part of supply chain management, ensuring that raw materials and components are delivered to manufacturing facilities and finished products are distributed to customers efficiently.
- **Construction Industry:** The construction industry relies on trucks to transport building materials, equipment, and machinery to construction sites. Roadway logistics are crucial for keeping construction projects on schedule. The other applications are Waste Management, Public Transportation, Emergency Services, Emergency Services, Food Industry, Tourism and Passenger Transportation, Postal Services, Military Logistics, Healthcare, Agriculture, Mining and Natural Resources and Winery and Brewery Industry etc...

Importance of TDC:

- Time-Definite Delivery Management (TDM) plays a crucial role in roadway logistics transportation by ensuring timely and reliable delivery of goods.
- TDM helps optimize routes and schedules, minimizing delays and reducing transportation costs.
- It improves customer satisfaction by providing accurate delivery estimates and reducing the risk of late deliveries.

- TDM systems enhance overall efficiency by coordinating vehicle movements, leading to reduced traffic congestion and environmental benefits.
- Real-time tracking and monitoring in TDM enable better visibility into the supply chain, allowing for quicker decision-making and problem resolution.
- TDM contributes to safety by helping prevent accidents through route planning and driver behavior monitoring.
- TDM supports compliance with regulations and standards in the transportation industry, reducing the risk of legal issues and fines.
- Minimizing empty or underutilized trips, TDM reduces fuel consumption and emissions, promoting sustainability.
- TDM systems can provide valuable data and insights for continuous process improvement and cost reduction strategies.
- Ultimately, TDM is essential in roadway logistics transportation as it combines technology and strategy to ensure the efficient, reliable, and sustainable movement of goods.

Problems in TDM:

- **Traffic Congestion:** One of the primary challenges is dealing with traffic congestion, which can lead to delays in deliveries and increased fuel consumption.
- **Route Optimization:** Ensuring efficient route planning and optimization to minimize travel time and fuel costs is often a complex task, especially for large fleets.
- **Vehicle Maintenance:** Managing vehicle maintenance schedules and unexpected breakdowns can disrupt logistics operations and increase downtime.
- **Driver Scheduling and Fatigue:** Properly scheduling drivers' shifts to comply with regulations while preventing driver fatigue and ensuring their well-being is a constant concern.
- **Weather and Environmental Factors:** Adverse weather conditions can affect road safety and delivery schedules, and environmental regulations can impact the choice of vehicles and routes.
- **Security and Cargo Protection:** Protecting cargo from theft or damage is critical, and maintaining the security of the supply chain is a continuous challenge.

Opportunities in TDM:

TDM can help logistics companies optimize delivery routes, reducing fuel consumption and transportation costs.

- **Fleet Management:** TDM software aids in managing and maintaining a fleet of vehicles, improving operational efficiency.
- **Demand Forecasting:** It assists in predicting customer demand, allowing for better resource allocation.
- **Real-time Tracking:** TDM enables real-time tracking of shipments, ensuring timely deliveries and enhancing customer satisfaction.
- **Inventory Management:** Efficient inventory management reduces storage costs and minimizes stockouts.
- **Sustainability:** TDM supports green logistics by reducing emissions through optimized routes and vehicle usage.
- **Risk Mitigation:** It helps identify and mitigate risks associated with supply chain disruptions.
- **Customer Engagement:** TDM systems can provide customers with accurate shipment tracking and estimated delivery times.
- **Cost Reduction:** By optimizing logistics operations, TDM can significantly reduce overall transportation costs.
- **Competitive Advantage:** Embracing TDM can give logistics companies a competitive edge in a fast-paced industry.

Future Scope of LSCM Manager:

The future scope of a Logistics and Supply Chain Management (LSCM) manager in roadway logistics transportation is poised for significant growth and transformation. With the increasing demand for efficient and sustainable transportation solutions, LSCM managers will play a pivotal role in optimizing supply chain operations. They will leverage advanced technologies such as Internet of Things (IoT), artificial intelligence, and blockchain to monitor, track, and manage the movement of goods on roadways. This will not only enhance route optimization and real-time visibility but also contribute to reducing carbon emissions through greener logistics practices. Furthermore, the emergence of autonomous vehicles and electric fleets will revolutionize the landscape of roadway logistics. LSCM managers will need to adapt to these changes by developing expertise in autonomous vehicle coordination, charging infrastructure, and data analytics. Additionally, as e-commerce continues to thrive, last-mile delivery optimization will remain a key focus area, presenting opportunities for LSCM managers to streamline urban logistics and reduce congestion.

Conclusion:

In conclusion, roadways logistics transportation plays a vital role in the global movement of goods and people. It offers flexibility, accessibility, and reliability, serving as a backbone for economic growth. However, it faces challenges like traffic congestion, environmental concerns, and maintenance costs. Innovative technologies like autonomous vehicles and sustainable practices are shaping its future. Collaboration between governments, businesses, and the public is essential to address these issues. Efficient logistics management, route optimization, and last-mile delivery solutions are key for success. Roadway transportation will continue to evolve, adapting to the changing needs of our interconnected world while striving for sustainability and efficiency.

References:

1. www.google.com
2. www.wikipedia.net
3. www.yahoo.com
4. www.crunchbase.com
5. www.linkedin.com