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## Paradigm shift in logistics management

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### **Abstract:**

A "paradigm shift" in logistics management refers to a fundamental change in how logistics operations are conducted, primarily driven by technological advancements like automation, data analytics, and digitalization, leading to a more data-driven, efficient, and customer-centric approach to managing the movement of goods, with key aspects including real-time tracking.

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### **Introduction:**

Logistics is the collection of processes involved in moving goods internally or from buyer to seller. Logistics managers oversee and control the many complexities involved in that process; in fact, there are a number of certifications (opens in a new tab) for these professionals. Success depends on attention to many details: Routes need to be determined based on expediency, regulatory environments and avoiding obstacles ranging from road repairs to wars and adverse weather conditions. Shipping provider and packaging options must be carefully considered, with costs weighed against factors from weight to recyclability. Fully loaded costs may include factors outside of transportation, such as those that ensure customer satisfaction and the availability of suitable warehousing.

Viksit Bharat, or Developed India, represents the vision of a prosperous and equitable nation, but it faces several challenges such as income inequality, inadequate infrastructure, and access to quality education and healthcare. However, this vision also presents significant opportunities, including the potential for technological innovation, increased foreign investment, and the ability to harness India's demographic dividend. By addressing these challenges strategically, India can pave the way for sustainable development and inclusive growth, ultimately transforming its society for the better (Rathod et al., 2024).

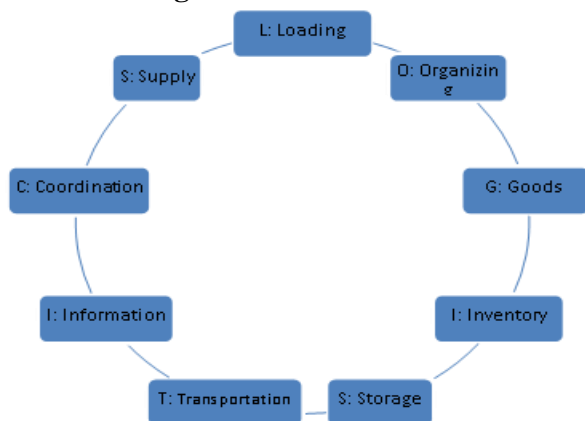
Logistic management in India has become increasingly vital as the country strengthens its position in global trade, driven by initiatives such as Make in India and the National Logistics Policy. The integration of technology, including automation and data analytics, is enhancing supply chain efficiencies and addressing challenges related to infrastructure and regulatory frameworks. Furthermore, as e-commerce continues to surge, logistics providers are adapting to meet the demands of faster delivery times and improved customer service, ultimately positioning India as a key player in the global market (Harale et al., 2024).

### **Research Methodology:**

This paper is based on secondary data (books and websites), discussions and observation method. Electronic databases and online libraries are searched for relevant literature using a

comprehensive set of keywords a relating to Information was gathered from web-based search engines, published literatures.

### Full form of logistics



### Importance of Logistics:

Logistics centres on the movement of goods, but its effects extend much further. In business, success in logistics translates to increased efficiencies, lower costs, higher production rates, better inventory control, smarter use of warehouse space, increased customer and supplier satisfaction, and an improved customer experience.

Each of these factors can significantly move the needle on a company's success. Note that logistics also extends to managing returns to extract the most revenue from these goods.



1. **Faster Delivery:** Logistic hubs enable quick sorting, packaging, and shipping of products, reducing delivery times.
2. **Increased Efficiency:** Hubs streamline logistics operations, minimizing errors and delays.
3. **Improved Customer Experience:** Reliable and speedy delivery enhances customer satisfaction and loyalty.
4. **Reduced Costs:** Optimized logistics operations lower shipping costs, making products more competitive.
5. **Scalability:** Logistic hubs enable businesses to scale quickly, handling increased order volumes during peak periods.
6. **Real-time Tracking:** Hubs provide real-time tracking and updates, keeping customers informed about their orders.
7. **Returns Management:** Logistic hubs facilitate easy returns and reverse logistics, reducing the complexity of handling returns.

**Warehouse Management Strategies:**

You can maximize the space inside the warehouse by utilizing the vertical space. You can even divide the warehouse into different zones based on factors like demand for the product or picking requirements. Assign workers to each zone to increase efficiency.

There can be autonomous mobile robots inside the warehouse. They will move the products inside the warehouse space. It eliminates the need for any physical worker, thus reducing the labor costs of a business.

The usage of conveyor belts will bring products directly to operators. It eliminates the requirement of unnecessary movement inside the warehouse. You can implement warehouse management software to track goods right from their arrival inside the warehouse to storage and delivery.

**Transportation Management Strategies:**

Moving goods from the supplier to the end customer is possible by rail, road, or air. Choosing the effective one can be pretty complex for any business. Adopting transportation management strategies may significantly help reduce costs and increase customer satisfaction. The TMS will help choose the most efficient route by considering traffic, distance, and many more factors.

**Inventory Management Strategies:**

The business can use inventory management software to track goods in the supply chain.

**Benefits of Logistics Management:****Cost Reduction:**

Logistics management will give your business better visibility. It helps to identify the inefficiencies or resource wastage. For instance, you can optimize the transportation route to reduce the fuel costs. You can optimize the warehouse storage to minimize the space required for lease.

**Improve Customer Satisfaction:**

Effective logistics management involves proper inventory and warehouse operation management. It dramatically helps to improve the fast and accurate delivery of goods to customers. There are fewer chances of customers seeing out-of-stock messages on the website.

**Remain Ahead of Competitors:**

Proper logistics management can help respond quickly to an unexpected event like a sudden rise in demand or delay of any product from the supplier. Proper decisions at that time will not impact your customer satisfaction and will help to keep your business ahead of competitors.

**Logistics Ratio:** The logistics ratio decreased to around 12-15% of GDP during this period. (Source: Various industry reports)

**Reforms and Liberalization (1991-2000):**

1. Economic Liberalization: India's economy was liberalized, leading to increased trade and commerce.
2. Private Sector Participation: Private sector companies were allowed to participate in logistics and transportation sectors.
3. Infrastructure Development: Significant investments were made in developing logistics infrastructure, including roads, ports, and warehouses.

**Modern Era (2000-present):**

1. **Logistics Industry Growth:** The logistics industry in India has grown rapidly, with a CAGR of 10-15%.
2. **E-commerce Growth:** The rise of e-commerce has driven demand for logistics services, particularly in the express and parcel segments.
3. **Infrastructure Development:** Continued investments in logistics infrastructure, including the development of logistics parks and corridors. Here are some statistical data on logistics in India after independence.

**Post-Independence (1947-1990):**

1. **Railway Network:** Expanded to 83,000 km (52,000 miles) of railway tracks, with a freight traffic of 200 million tons. (Source: Indian Railways)
2. **Road Network:** Increased to 1.4 million km (870,000 miles) of roads, with 300,000 km (190,000 miles) being paved. (Source: Ministry of Road Transport and Highways)
3. **Port Handling:** Cargo handling at major ports increased to 150 million tons. (Source: Indian Ports Association)
4. **Warehouse Capacity:** Warehouse capacity expanded, with the development of modern storage facilities. (Source: Various industry reports)
5. **Transportation Mode Share:** Railways accounted for 60% of freight traffic, while roads accounted for 30% and waterways accounted for 10%. (Source: Planning Commission of India)

**Logistics Ratio:** The logistics ratio decreased to around 12-15% of GDP during this period. (Source: Various industry reports)

1. **Fast and Reliable Shipping:** Online customers expect fast and reliable shipping, making logistics a critical component of online marketing.
2. **Customer Satisfaction:** Logistics plays a significant role in ensuring customer satisfaction, as delayed or damaged shipments can lead to negative reviews and lost sales.
3. **Competitive Advantage:** Effective logistics can be a key differentiator for online businesses, setting them apart from competitors.
4. **Cost Savings:** Optimized logistics can help online businesses reduce shipping costs, increasing profit margins.

**Key Logistics Components in Online Marketing:**

1. **Order Fulfillment:** Processing and shipping orders efficiently to meet customer expectations.
2. **Inventory Management:** Managing inventory levels to ensure products are available for shipping.
3. **Shipping and Delivery:** Partnering with reliable shipping carriers to ensure timely and secure delivery.
4. **Returns and Reverse Logistics:** Handling returns and reverse logistics efficiently to minimize losses.

**Online Marketing Strategies that Require Effective Logistics:**

1. **Free Shipping:** Offering free shipping requires efficient logistics to minimize costs.
2. **Same-Day Delivery:** Providing same-day delivery requires precise logistics planning and execution.

3. **Omnichannel Retailing:** Offering seamless shopping experiences across online and offline channels requires integrated logistics.
4. **Subscription-Based Services:** Managing subscription-based services requires reliable logistics to ensure timely deliveries.

#### **Benefits of Integrating Online Marketing and Logistics:**

1. **Improved Customer Experience:** Seamless integration of online marketing and logistics enhances the overall customer experience.
2. **Increased Efficiency:** Integrated logistics and online marketing streamline operations, reducing costs and improving productivity.
3. **Competitive Advantage:** Businesses that integrate online marketing and logistics effectively can differentiate themselves from competitors.
4. **Data-Driven Decision Making:** Integrating logistics

#### **E-commerce Logistics Statistics:**

1. 85% of online shoppers expect fast and reliable shipping. (Source: McKinsey)
2. 70% of customers consider shipping speed when making a purchase online. (Source: comScore)
3. 60% of online shoppers are more likely to choose a retailer that offers free shipping. (Source: National Retail Federation)
4. 55% of customers have abandoned an online shopping cart due to high shipping costs. (Source: comScore)
5. The global e-commerce logistics market is expected to reach \$1.7 trillion by 2025, growing at a CAGR of 17.3%. (Source: Research And Markets)

#### **Online Marketing and Logistics Statistics:**

1. 80% of online retailers consider logistics to be a critical component of their business strategy. (Source: Internet Retailer)
2. 70% of online retailers say that logistics is a key differentiator for their business. (Source: Internet Retailer)
3. 60% of online retailers report that they have experienced logistics-related issues, such as stockouts or shipping delays. (Source: Internet Retailer)
4. 55% of online retailers say that they plan to invest in logistics technology in the next two years. (Source: Internet Retailer)
5. The average online retailer spends around 12% of their revenue on logistics, with the goal of reducing this percentage to around 9% in the next two years.

Logistics Mode Share in 1950	
Rail	70%
Road	20%
Water	5%
Air	5%

Logistics Mode Share in 1980	
Rail	50%
Road	35%
Water	10%
Air	5%

Logistics Mode Share in 2020	
Road	60%
Rail	25%
Water	10%
Air	5%

Logistics Industry Segments in 2020	
Transportation	55%
Warehousing	20%
Freight Forwarding	10%
Logistics Parks	5%
E-commerce Logistics	10%

### Conclusion:

The Future of Ecommerce and Custom Logistic Software Ecommerce isn't slowing down, and neither is the need for custom logistic software. As businesses continue to adapt to the changing landscape, the demand for personalized, scalable, and efficient logistic solutions will only grow.

Custom logistic software has impacted the logistics scene in the same way that ecommerce has affected the retail landscape. It's no longer about one-size-fits-all solutions; it's about personalized, adaptable, and intelligent systems that can keep up with a constantly changing market.

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