



The logistics and warehousing market in India

October 2022



Table of contents

| | |
|---|-----------|
| 1. Preface | 3 |
| 2. Indian logistics and warehousing market – an overview | 4 |
| 3. Key industry drivers | 8 |
| 4. Trends shaping the industry | 9 |
| 5. Evolving concepts and themes | 11 |
| 6. Logistics value chain | 12 |
| 7. The five competitive forces | 13 |
| 8. Navigating through the challenges | 14 |
| 9. Way forward: Immediate focus areas for companies | 16 |

Preface

Buoyed by the challenges of the pandemic and the rising ecommerce activity, the logistics and warehousing sector in India has seen a rapid transformation. Evolving business needs and altering consumer behaviour has led to a series of technological advancements, investments, newer business formats, further driven by favourable government support. The ensuing focus towards speed and convenience has driven consumers towards online shopping, while on the other hand, the commercial and office segments have witnessed mutations in the form of flexible office space and smaller formats closer to customer locations. Given the pace in demand from across the industries, the sector may well be set for strong growth in the next few years.

From a largely unorganised, asset-heavy industry, the industry is now shifting towards a lighter model, eliminating huge capex, optimising delivery timelines, and efficiently managing operations. Technological developments have been rampant across value chain, leading to larger focus on automation and data analytics, while also deploying digital tools for effectively utilising resources and managing operations.

Recognising the growing demand for the sector, the Government has also implemented a range of action steps to improve the sector's viability. Development of dedicated rail-based freight

corridors, improving focus towards multi-modal connectivity, policies such as Logistics Efficiency Enhancement Program, along with initiatives to support sustainability—all of these account for policies favouring sector's growth. However, surging land prices, skewed modal share towards road, high logistics costs, and lack of adequate infrastructure are some of the challenges faced by the sector. These challenges are likely to be addressed through larger focus on digitisation across supply chain processes, better planning and execution, and a balanced strategy towards the modal mix.

Moving ahead, the demand for logistics and warehousing is expected to percolate to tier II or secondary markets, given the increasing prevalence of these cities, specifically due to the traction in the ecommerce segment. Companies are expected to adapt to the changing industry dynamics, amending their business formats, the technology infrastructure, and the strategies across business processes.

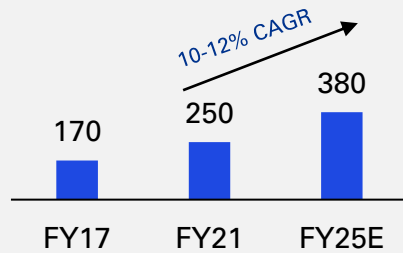
Lastly, technology will play a pivotal role across the logistics cycle, including sourcing, transport, storage, and delivery of goods. Companies implementing new technologies would be able to realise benefits in the form of reduced manual effort, predictive insights, transparency across supplier tiers, and a better customer experience.



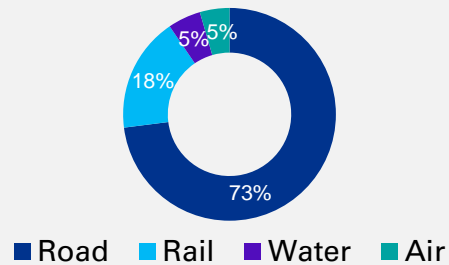
Indian logistics market – an overview

The Indian logistics sector is on a growth trajectory, driven by burgeoning ecommerce market and technology driven transformation. The industry has evolved from being a transport and storage driven activity to a specialised function, covering end to end planning and management of goods, value added services towards last mile delivery, predictive planning and analytics, among others.

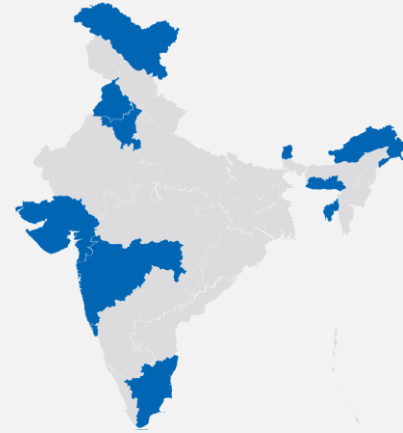
Indian logistics market (USD billion)¹



Segment break up (FY21)¹



Top locations²

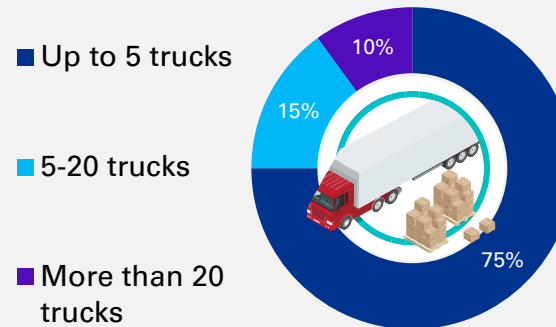


■ Top rated states

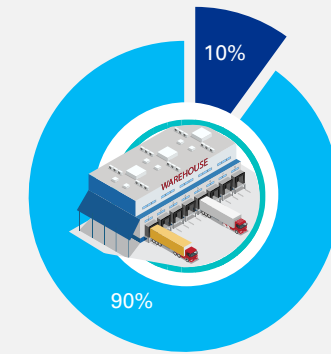
Top rated states as per the Leads index 2021--rating the states on key parameters around logistics services and infrastructure

Peer landscape

Ownership (2021)¹



Structure¹



■ Organised ■ Unorganised

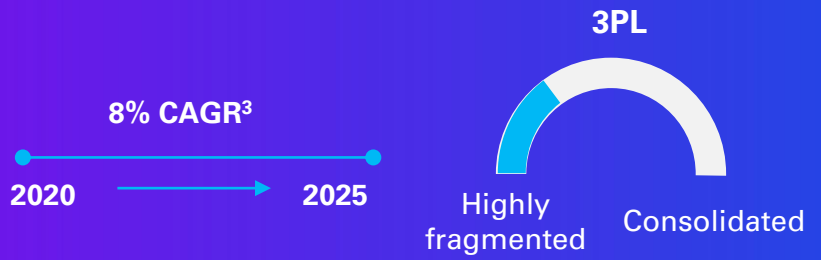
Highly fragmented industry with presence of several small, unorganised players

1. Logistics on the cusp of a transformation, Motilal Oswal, October 2021;
2. Logistics service market in India, Netscribes, 2022;

3. Third-party Logistics Market in India by End-user and Service - Forecast and Analysis 2021-2025, Technavio;
4. Indian express logistics industry 2022, Indian Chamber of commerce and Aviral

Value added services

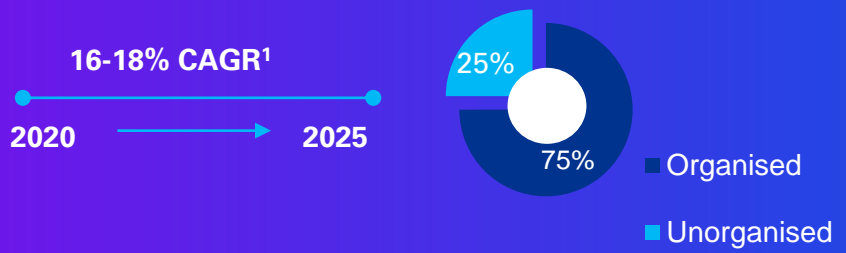
3PL logistics



End users:

For large scale companies and wide operations

Express logistics^{1,4}



End users:

Perishables or time sensitive delivery

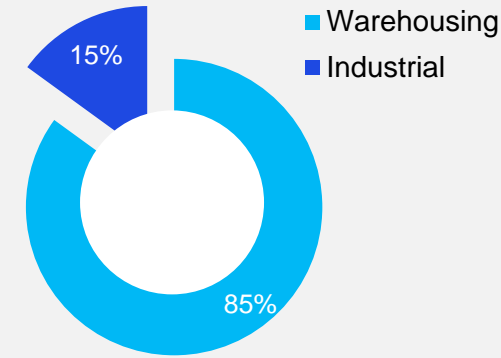


Sources: 1. Logistics on the cusp of a transformation, Motilal Oswal, October 2021; 2. Logistics service market in India, Netscribes, 2022; 3. Third-party Logistics Market in India by End-user and Service - Forecast and Analysis 2021-2025, Technavio; 4. Indian express logistics industry 2022, Indian Chamber of commerce and Aviral

Indian warehousing market – an overview

The Indian warehousing market is also gaining momentum with increasing demand and supply over the years. 3PL and ecommerce players are the major occupiers, penetrating in tier-2 and 3 cities as well, and eventually increasing the share of secondary markets. Focusing on larger picture of convenience, efficiency, and sustainability, companies are moving to a hub and spoke model, while also adopting technology for streamlined operations.

Transaction share by end use of space (2021)*1

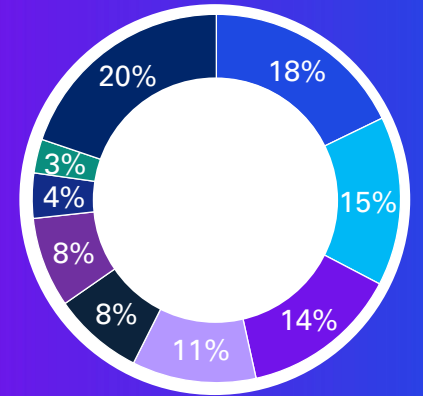


*Warehousing refers to storage activity; Industrial refers to manufacturing activity

Warehousing (2021)² Tier 2 & Tier 3 cities Tier 1 cities

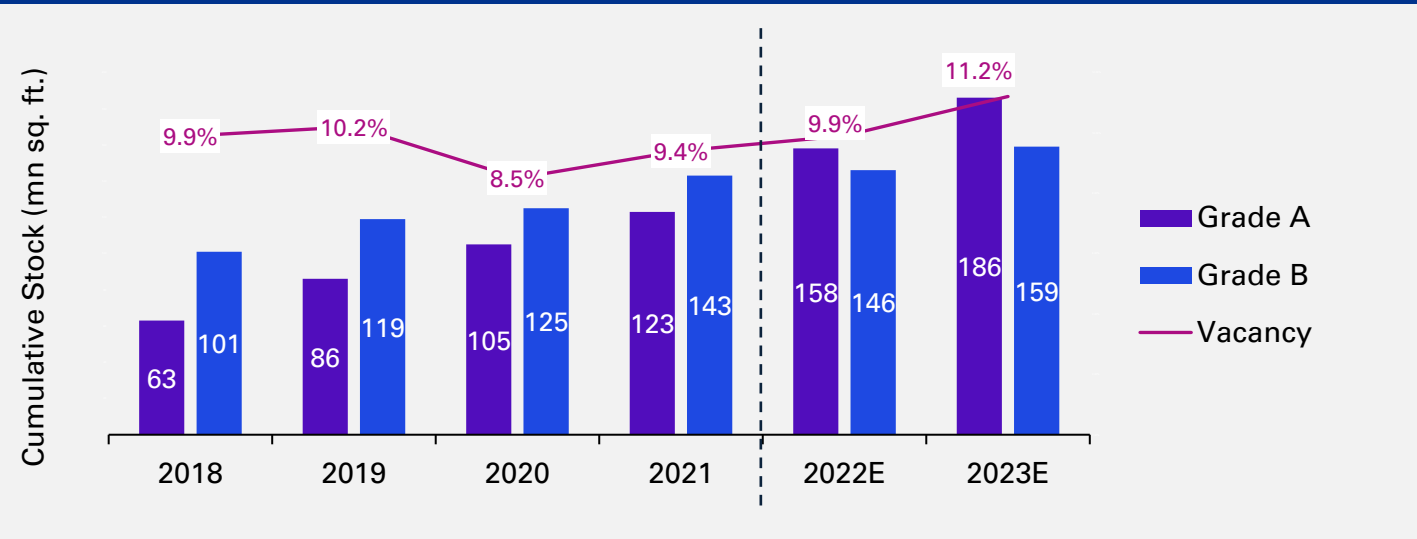
| | Tier 2 & Tier 3 cities | Tier 1 cities |
|-------------------|------------------------|--------------------|
| Supply | 8.9 million sq.ft | 36 million sq.ft |
| Absorption | 8.6 million sq.ft | 25.1 million sq.ft |

Absorption by city (2021)²



- Delhi NCR
- Pune
- Mumbai
- Bengaluru
- Chennai
- Kolkata
- Hyderabad
- Ahmedabad
- Tier 2 and 3 cities

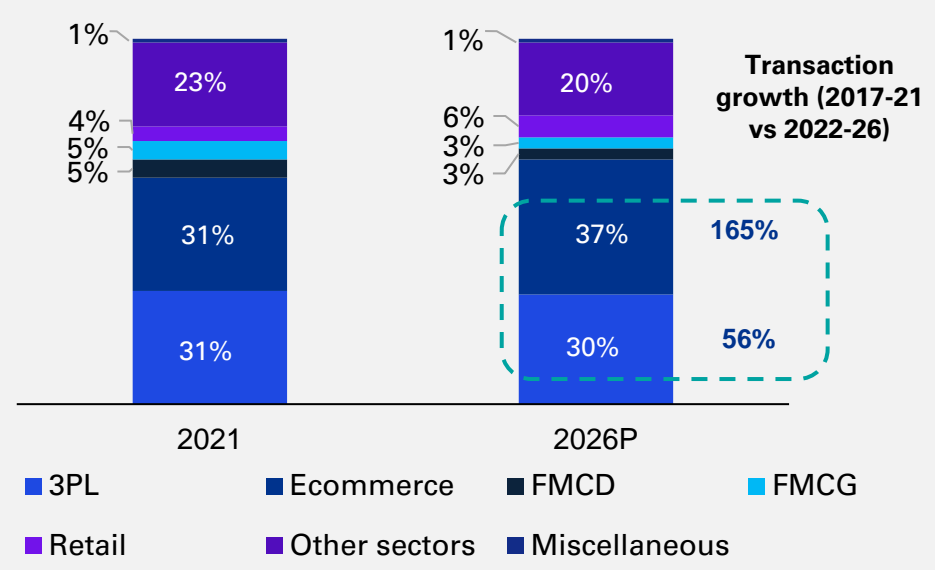
Demand and supply scenario of tier 1 cities²



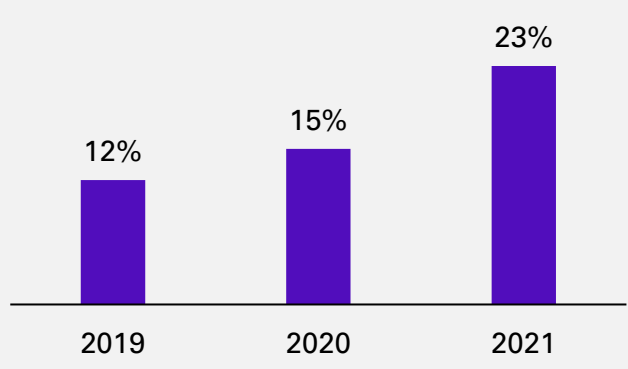
1. India Warehousing Market Report 2021, Knight Frank;

2. Market in Minutes: India Industrial & Logistics, 2021, Savills

Sector split of warehousing Demand (2021)¹



Share of secondary markets in warehouse transactions is increasing¹



1. India Warehousing Market Report 2021, Knight Frank;
 2. Market in Minutes: India Industrial & Logistics, 2021, Savills

Key industry drivers

Increasing ecommerce demand, technology upgradation and startup activity is driving market growth



Government initiatives

- Introduction of reforms such as GST and e-way bill, driving industry growth, consolidation and efficiency
- Free trade warehousing zones and logistics parks. Government's warehousing policy on exclusive warehousing zones through public-private partnerships to ease transportation and logistics costs and further propel growth¹
- Government's focus on infrastructure, logistics development and multi modal connectivity, with INR7.5 lakh crore capex in FY23.²



Global manufacturing shift

- Global companies shifting manufacturing focus to India, leading to more demand for warehousing options and logistics services
- Production Linked Incentive (PLI) scheme boosting domestic manufacturing, and hence creating more demand for industrial space and warehouses.



New age startups

- Emergence of new age tech logistics startups, strongly penetrating in this space and developing competitive offerings
- Several players entering the B2B space, driven by manufacturing
- New players bringing in more technology and digital systems for higher productivity, triggering overall industry growth



Technology advancement

- Modern technology solutions creating opportunities in terms of expansion of solutions across the value chain
- Warehouses being conceptualised and integrated with technologies such as, Internet of Things (IoT), robotics and artificial intelligence (AI)



Flourishing ecommerce

- Rise in ecommerce leading to expanded operations, catering accelerated demand
- Changing consumer behavior, demanding convenience through last-mile connectivity, ease of returns and other value-added services
- Emergence of Direct-to-consumer (D2C) brands seeking end to end logistics services
- Omni channel retailing further boosting demand for multiple warehouses to serve the end consumers.



Sources: 1. How the new warehousing policy will transform India's logistics, Mint, 22 December 2021; 2. Budget speech document 2022-2023, 1 February 2022

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.


Trends shaping the industry

Growing scale of operations pushing adoption of technology deployment and 3PL services



Surging demand for ecommerce with increasing customer centricity is pushing demand for third party integration. Role of warehousing and logistics is moving beyond the traditional scope, with end to end optimisation, technology deployment and value-added services.

Managing complexities through 3PL




Ecommerce is driving the Indian warehousing market volumes, with sector's share in warehousing transactions growing from 18 per cent in FY2017 to 31 per cent in FY2021.¹

- This has led companies to outsource their logistics requirements to 3PL operators, to optimise delivery timelines, avoid huge capex, while maintaining an 'Asset Light' model
- Increasing focus on consumer-centricity, direct-to-consumer (D2C) model, last mile delivery is further driving this shift. Hence, larger focus on 3PLs to manage inventory, optimise fulfillment, end to end procurement, distribution and data management.

3PL players are moving beyond traditional services to:

- Integrate manufacturer's ecommerce websites to provide network-wide inventory Available to Promise (ATP)
- Provide estimated delivery dates for consumers and cost reduction, capacity expansion depending on demand
- Gain better visibility and faster decision-making and reporting across all operations.

Technology deployment for end to end transformation



About 56 per cent of Indian logistics companies use map-based solutions for shipment monitoring. IoT, automation, electric vehicles (EVs), and location technology are among logistics industry's key priorities.²

Warehousing providers are looking at lean and smart logistics solutions, with integration of technologies including

- Internet of Things (IoT) for SKU* handling; augmented reality (AR), drones for inventory monitoring; and blockchain for data encryption.
- Big data to forecast changes in volume and customer demands, with solutions on real time data analysis
- On road, integrated, optimisation and navigation software for driver delivery routes
- Use of Digital Twins—virtual replicas of a physical object, like a building, to visualise warehouse operations and coordinate data from sources like IoT sensors. Warehouses and facilities can also use the technology to create 3D models to see changes within the layout and also assess the impact in advance.

Statistics/Case study

| Growth | Transactions (million sq m) ¹ | |
|------------------|--|------------|
| | FY2017-21 | FY2022-26 |
| 165% | 3.4 | 9.1 |
| Ecommerce | | |
| 56% | 4.9 | 7.7 |
| 3PL | | |

An AI driven freight platform is helping fleet owners reduce cost by providing real time visibility in supply chain and eliminating cargo theft, improving delays and detention, driver safety, vendor collaboration with the use of IoT and analytics.

A global logistics firm has launched an online platform providing fluidity and transparency in supply, with features like track and trace capabilities.

Sources: 1. India Warehousing Market Report 2021, Knight Frank; 2. Internet of Things finding takers among logistics firms: HERE Tech; 15 July 2021

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

*Stock keeping unit

Trends shaping the industry

Companies are increasingly embracing automation and enabling cost-effective warehousing techniques



Surging demand for ecommerce with increasing customer centricity is pushing demand for third party integration. Role of warehousing and logistics is moving beyond the traditional scope, with end-to-end optimisation, technology deployment and value-added services

End to end optimisation with automation



Warehousing and logistics ecosystem is evolving, with major push towards automation across processes such as storage, retrieval and relocation of goods. Increased throughput requirement of sectors like ecommerce is expected to increase technology adoption.

- The Indian Warehouse Automation Market is expected to grow at a 26.4 per cent CAGR during 2021-2026, from USD86.2 million in 2020 to USD512.2 million in 2026.¹

Some of the prevalent use cases include:

- Automation and robotics technologies, including automated storage and retrieval systems (ASRS), conveyors, palletizers, sortation systems, autonomous mobile robots (AMRs), automatic guided vehicles (AGVs), for streamlined operations
- Process-oriented automation software that leverages scanners, barcodes, to streamline the data collection and integration process
- Autonomous mobile robots (AMRs) to deliver everything from intricate picking fulfilment to managing space efficiency by moving pallets and large payloads not required immediately to remote / free locations
- Dark warehouses, which are completely automated and require no human involvement.

Statistics/Case study

A leading ecommerce player is deploying a robot-based sortation technology in its warehouses. This enables 100 self-guided robots to autonomously sort items in the order of delivery pin codes.

Every hundred AGVs (automated guided vehicles) result in a 60 per cent boost in process efficiency.

Value added services



Companies are increasingly evaluating the efficiencies of on-demand warehousing as a cost-effective and flexible business solution, while some are shifting to a hub and spoke model.

- On-demand warehousing is an online marketplace model that leverages the power of app-based tools. It helps with warehousing space requirements and connect with logistics players who offer excess warehousing capacity on a pay-per-use basis
- By monetising unutilised storage spaces, warehousing players can save themselves from bearing considerable expense on surplus spaces in on-demand warehousing
- Localisation of micro-fulfillment warehouses—citing facilities near high-population urban centers to enable faster and less expensive order fulfillment (Depending on the company, these warehouses may be stocked from larger distribution centers in a hub-and-spoke model or receive product directly from the manufacturer).

Micro-fulfilment 10X by 2025
(growth estimates)² 30X by 2030

A logistics provider has invested in a network of fulfilment centers, enabling merchants to directly sell their products, and be closer to online buyers. Also helping them leverage the network with end to end visibility of operations

Sources: 1. Smart warehousing: A pressing priority for post-COVID businesses, TPCI, June 19, 2021; 2. Micro Fulfillment Market Expected to Reach an Installed Base of 6600 MFCs by 2030 – LogisticsIQ, 3 March 2022

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Evolving concepts and themes

Some of the emerging themes, though at a nascent stage, are expected to drive momentum



- Currently at a nascent stage, **urban logistics is gaining traction** in metros and other cities, as consumers opt for more convenience, transparency and flexibility of online purchases.
- To reduce costs and increase delivery efficiency, warehouses are moving closer to customers with smaller facilities, and penetrating to smaller cities as well. India's urban logistics spaces are expected to cross 7 million sq. ft by 2022¹



- **Focusing more on supply chain resilience**, manufacturers are geographically diversifying their supply chains. Moreover, logistics providers are integrating systems and players across the value chain for higher visibility and governance.
- With disruptions becoming rampant, remote sourcing is expected to become more dominant with technologies such as AI and Blockchain.



- A larger **focus on circular economy** based on Cradle-to-Cradle (C2C) approach is the next new normal, emphasising on remanufacturing, recycling, and reusability of materials.
- With government also pushing focus on transition from a linear to a circular economy, players would need to evaluate reverse logistics, having all processes integrated.



- With remote working becoming popular, players are expected to deploy **tools like smart glasses and augmented reality** collaboration apps, to handle order allocation, inventory control management, order picking, and material handling with simultaneous collaboration.
- With AR-assisted training, employers could also get trained through assisted remote-learning features.



- **Drones are gradually becoming popular**, aiming to eliminate manual effort and increase efficiency in areas where deliveries are difficult. India's drone rules 2021,³ could pave the way for faster deliveries, higher profitability, and substantial reduction in carbon emission.
- Facilitating last mile deliveries, a package, **which currently takes up to 72 hours to deliver, will be delivered between 8 to 12 hours** with heavy lift drones.²

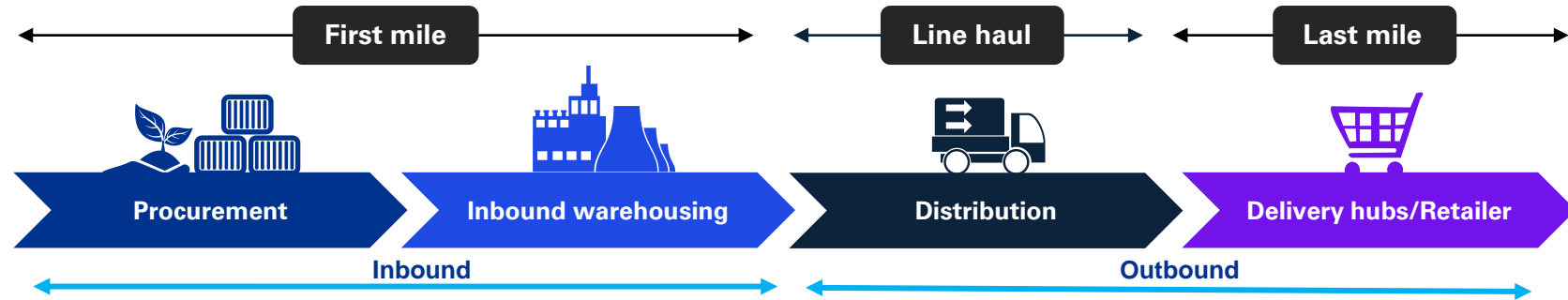


- Logistics players would focus more towards deploying **energy efficient EVs and alternate fuels**. This could increase usage of biofuels, hybrid EVs and hydrogen fuel cells
- The government has also been framing policies for cleaner technologies, and hence, investing in greener cold supply chains and solar-powered, temperature-controlled warehouses would be a focus area too.

Sources: 1. India urban logistics spaces expected to cross 7 million sq. ft by 2022, JLL, 9 September 2021; 2. Heavy-Lift Made-In-India Drone To Redefine E-Commerce, Bits & Drones, India, 13 December 2021; 3. The Drone Rules, 2021, Ministry of civil Aviation, PIB, 28 January 2022

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

The logistics value chain



| | | | | |
|-----------------------------|---|---|--|---|
| Function | <ul style="list-style-type: none"> Inbound procurement of raw material and goods Consolidating shipments from different sources | <ul style="list-style-type: none"> Inventory management Storage, sorting, packaging and other warehousing activities | <ul style="list-style-type: none"> Outbound shipments from factory/warehouses to retailers/delivery centers Shipment tracking, quality and temperature control | <ul style="list-style-type: none"> Storage of finished goods Inventory management and demand planning Order processing and invoicing Last mile delivery |
| Mode | Road, Maritime, Rail, Air <small>Involving both domestic and international transport</small> | | Road, Maritime, Rail, Air <small>Road for local supply; other modes for national/international shipments</small> | Road <small>Involves local distribution</small> |
| Load units | <ul style="list-style-type: none"> Bulk shipping Full Truckload (FTL) | <ul style="list-style-type: none"> Not applicable | <ul style="list-style-type: none"> Unit shipping FTL/LTL | <ul style="list-style-type: none"> Less than truckload (LTL) |
| Value added services | <ul style="list-style-type: none"> Supply chain planning Vendor management | <ul style="list-style-type: none"> Assembly and product customisation/rebranding | <ul style="list-style-type: none"> Route optimisation and cost planning | <ul style="list-style-type: none"> Shelf replenishment and inventory analytics Notifications and updates; reverse logistics |
| Evolving roles | <ul style="list-style-type: none"> Alternative fuels and EVs-deployment for procurement Blockchain technologies for farm to fork tracking | <ul style="list-style-type: none"> Smart warehouses and use of cobots Automation across various functions for fast turnaround and quality | <ul style="list-style-type: none"> Sustainable distribution; drones; autonomous delivery testing Predictive analytics for cost and delivery planning | <ul style="list-style-type: none"> Express delivery Micro fulfilment and dark stores – moving closer to customer |



Note: This is an indicative value chain based on a normal scenario. The value chain may alter basis the model followed by logistics provider

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

The five competitive forces



Bargaining power of suppliers: Low

- Presence of large number of players reduces the bargaining power of suppliers, due to abundance of choice
- Lesser dependence on one supplier due to less complex service
- However, players with large scale and differentiated offerings could have a competitive edge.

Threat of new entrants: High

- Low barriers to entry making market entry easy
- Moderate investment required
- Technology advancement introducing new players (including startups, ecommerce players) into the industry.

Bargaining power of buyers: Moderate to high

- Minimum differentiation and low switching costs gives high bargaining power to consumers
- Consumers often tend to switch service providers, basis costs, flexibility and value-added services.

Industry rivalry: High

Highly fragmented industry with ~90 per cent small unorganised players¹

Intense competition with several players offering undifferentiated yet competitive services.

- No other close substitute to logistics industry, apart from transportation services
- Consumers have an option to switch to other modes (for instance, rail, instead of air freight).

Threat of substitutes: Moderate

Sources: 1. Logistics on the cusp of a transformation, Motilal Oswal, October 2021

Note: This is a broad-based Porter's five forces model prepared for the overall logistics industry. Analysis the competitive forces would be more prevalent if a defined segment within the industry is picked

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Navigating through the challenges

High cost and visibility



Challenge

Skewed towards road transport

- Rail's share in freight transportation in India has been declining over the years. In 2021, it accounted for ~18 percent share compared to 71 percent share for roads.¹ While rail could be a cost-effective and efficient option, companies are still not deploying it due to time constraints and lack of flexibility.
- Cost of road transport is much higher (INR2.5 per tonne/km compared to INR1.35 per tonne/km for rail and INR1.1 per tonne/km for water).¹

Lack of visibility

- Supply disruption has been a major cause of concern in the recent times. Several logistics firms have struggled or continue to struggle with deliveries due to lack of visibility across suppliers and routes.
- This eventually has an impact on the whole value chain, delaying production as well.

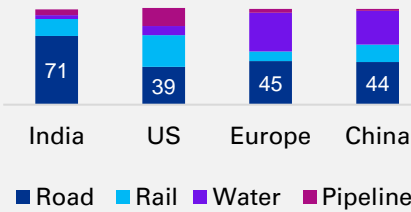
High logistics costs

- Logistics costs in India are significantly high, accounting for 14 percent of the GDP,² much higher than other large economies.
- Driven by high transportation cost, this can be attributed to low efficiency; under utilisation of trucks, skewed modal share, and obsolete technologies

Steps to mitigate

- Long haul goods could be transported through rail; bulk freight and low to medium value non-bulk products can also be moved through rail and intermodal transport
- The Government has been taking initiatives towards rail infrastructure, investing in dedicated freight corridors to increase rail network capacity. Eastern and western dedicated freight corridors are expected to be commissioned by June 2022.²
- Use of control towers for better visibility, and a connected view of metrics and events across the supply chain
- Logistics firms can track the whole process of inventory receiving, storage, order management and fulfilment, and shipping from a single location.
- Deploy real time tracking to send warnings and alerts for immediate actions in case on any disruption. Notify customers on shipping and estimated time of arrival (ETA).
- While one of the ways to cost reduction is balancing the modes of transport, companies should also increase efficiency by optimising vehicle use and productivity through effective routing and loading
- Invest in standardisation and digitisation of processes and equipment
- The government has introduced Logistics Efficiency Enhancement Program (LEEP)⁵ to improve logistics efficiency and building 35 multimodal logistics parks.

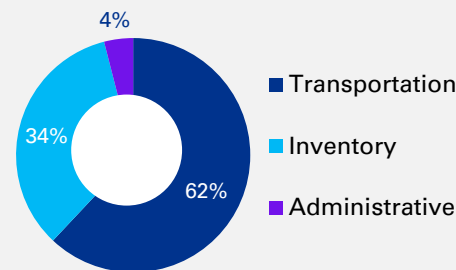
Modal share (%)¹



Nearly **94 per cent** of the Fortune 1000 companies experienced supply chain disruptions during the pandemic.³

Disruptions cost **three out of every 10 containers** to miss their scheduled sailing, thereby affecting their scheduling reliability.⁴

Logistics costs in India²



Sources: 1. Logistics on the cusp of a transformation, Motilal Oswal, October 2021; 2. Fast Tracking Freight In India, NITI Aayog, June 2021; 3. 94% of the Fortune 1000 are seeing coronavirus supply chain disruptions: Report, Fortune, February 2020; 4. Top 5 trends in supply chain management to look out for in 2022, Economic Times, 19 February 2022; 5. Logistics Efficiency Enhancement Program (LEEP), Ministry of road transport and highways © 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Navigating through the challenges

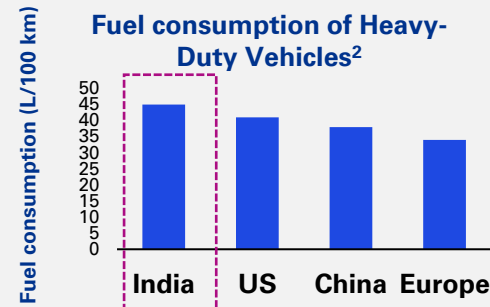
Overcoming the environmental impact and soaring land prices



Challenge

Issues around environmental impact

- With a very high share of road transport, India's freight activity deploy internal combustion engine (ICE) vehicles, mostly powered by diesel. Penetration of EVs in freight is less than 1 percent, with players posing reluctance to switch to alternate fuels.
- Moreover, trucks in India have poor fuel economy, which negatively impacts the environment.



Surging land prices

- Logistics and warehousing companies are faced with a growing challenge of increasing land prices and unavailability of suitable land parcels. Increasing competition for a suitable land parcel with several complexities around regulations is further adding to uncertainty.
- Since Indian warehouses are experiencing horizontal development with more requirement of land, increasing prices could further add to incremental costs.

Steps to mitigate

- Improving fuel economy by discarding old vehicles with poor performance
- Shift to EVs or alternate fuels, while also deploy clean technology for fuel efficiency.
- The government has launched FAME II scheme, offering a subsidy to accelerate manufacturing and deployment of EVs. Under the scheme, the government has allocated INR 8,596 crore for upfront subsidies for EVs and INR1,000 crore for charging.¹
- Develop a plan for space optimisation for better land utilisation
- Deploy technologies to reduce cost of operations, and hence, offset the impact of rising land cost
- Focus on smarter small warehousing spaces

Key takeaways²

- Having an efficient modal mix could ultimately bring down costs– India has set a target of reducing the logistics costs as a share of GDP from 14 percent to 10 percent which can save up to INR 10 lakh crore.
- Shift towards other modes to cause less road traffic. Also, improved modal share and reduce the vehicular-freight activity by 48 percent in 2050
- Greater supply chain visibility to enable companies de-risk supply chains, avoid surge in prices due to unavailability, while ensuring continued supply
- Additionally, focus on alternative fuels will lead to reduced carbon emissions and improved air quality – India can save 10 giga tonnes of CO₂ and 15 million tonnes of nitrogen oxide (NO_x) caused by freight transport by 2050.

Sources: 1. Govt increases allocation for EV subsidy threefold, Economic times, 4 February 2022; 2. Fast Tracking Freight In India, NITI Aayog, June 2021

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Way forward: Immediate focus areas for companies

Tap into secondary markets

Tier 1 cities remain key markets, however, it is imperative to percolate into secondary markets, given the increasing prevalence of tier 1 & 2 cities, especially with growing ecommerce. Utilising newer concepts of warehouses, including dark stores, micro fulfilment hubs and on demand warehousing would be key to success, driving efficient last mile deliveries.

Sustainability is key

Sustainability to become a prominent pillar of the industry. Companies should be focusing towards deploying sustainable practices throughout its value chain and functions. Green logistics, fuel economy and alternate fuels, smarter energy efficient warehouses are some of the initiatives to begin with. These could not only help achieve nation's sustainability target, but also benefit in the form of goodwill, newer customers, better partnerships, among others.

Adapt to changing formats

Rise of ecommerce has created room for growth in the form of evolving formats such as omnichannel retail, quick commerce and other models such as Buy Online, Pick up in store (BOPIS). It will be critical for logistics and warehouse companies to strategise and manage their operations with changing landscape, to tap into these opportunities.

Technology remains paramount

Necessary to adopt technology across logistics cycle, including transport, storage and management of goods. Companies implementing new technologies to reduce manual effort, IoT and cloud for real time insights and predictive maintenance, and blockchain for supply chain transparency could receive plethora of benefits in the longer run.

Acknowledgements

We are sincerely grateful to the following people from the ecosystem who have helped in the preparation of this report

Research

- Reshma Pai (Associate Director)
- Aanchal Behl (Assistant Manager)
- Damini Sharda (Associate consultant)

Compliance and Design

- Sameer Hattangadi (Senior Associate Director)
- Lata Rathod (Manager)
- Nisha Fernandes (Manager)
- Shveta Pednekar (Manager)

KPMG in India contacts:

Neeraj Bansal

Partner, Co-Head and COO – India Global
Head – Insights Centre
E: nbansal@kpmg.com

Prahlad Tanwar

Partner & Global head – Logistics sector
E: prahladtanwar@kpmg.com

home.kpmg/in

home.kpmg/in/socialmedia



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

KPMG Assurance and Consulting Services LLP, Lodha Excelus, Apollo Mills Compound, NM Joshi Marg, Mahalaxmi, Mumbai - 400 011 Phone: +91 22 3989 6000, Fax: +91 22 3983 6000.

© 2022 KPMG Assurance and Consulting Services LLP, an Indian Limited Liability Partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organization.

This document is for e-communication only.