Aviral

WINNING ON SPEED

EXPRESS LOGISTICS IN INDIA

REPORT 2026

Associate Partner:

“Speed. Precision. Reliability. The pillars of express logistics, strengthened by technology and data intelligence.”

FOREWORD

Vikash Khatri
Founder, Aviral Consulting

Logistics plays a vital role in enabling economic growth by facilitating the efficient movement of goods from the point of origin to the point of consumption. Over the past few decades, India's logistics sector has undergone significant transformation, supported by increased investments in logistics infrastructure, e-commerce logistics, express delivery networks, and technology-driven solutions.

In an increasingly time-sensitive and customer-centric marketplace, businesses rely heavily on efficient logistics systems to deliver products quickly and reliably. The express logistics segment addresses this need by offering integrated door-to-door delivery services across domestic and international markets, supported by shipment tracking and enhanced visibility. In India, surface express logistics continues to dominate the market, with air express serving critical requirements for faster and high-value shipments.

Policy reforms and infrastructure development initiatives by the government, along with the implementation of a unified tax regime, have significantly reshaped the express logistics landscape. Programs such as "Make in India" are expected to strengthen the manufacturing sector and stimulate demand for logistics services. Traditional sectors such as EXIM cargo, agriculture, textiles, automobiles, and auto ancillaries remain important demand drivers for express logistics and warehousing. At the same time, the rapid expansion of e-commerce has emerged as one of the most significant catalysts for the growth of express logistics over the past decade.

Technology has become central to the evolution of the express logistics industry. Companies are increasingly transitioning from traditional operational models to technology-enabled networks integrating automation, data analytics, and digital tracking systems. These advancements are helping improve operational efficiency, reduce costs, and enhance service reliability.

Supported by policy initiatives and ongoing infrastructure upgrades, India's logistics sector is expected to grow at a CAGR of around 8.5–9.5% in the near term while CAGR of Express is expected to be significantly higher, improving the country's global competitiveness.

This report provides comprehensive insights into the Indian express logistics market, including its size, key user industries, growth drivers, emerging trends, and challenges. I would like to express my sincere appreciation to my teammates, **Mr. Palash Mungee**, **Ms. Nikita,** and **Mr. Viraag**, for their extensive efforts in primary research and the compilation of this report. I also extend my gratitude to the industry leaders who shared valuable perspectives that enriched this study. Special thanks are due to Apptmyz Technologies and Allcargo Logistics Limited for their cooperation and support in making this report possible.

DISCLAIMER

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ABSTRACT

The report provides a comprehensive overview of the express logistics industry, with a primary focus on India in the context of global macroeconomic conditions, and comparative benchmarks with China and the US. It examines structure, economics, technology, regulation, challenges, and future outlook for domestic express.

Global growth has slowed to ~3.2% but remains resilient, with logistics facing moderate trade growth, regionalisation, tighter financing conditions, and rising regulatory and sustainability demands. India stands out as the fastest-growing major economy (6.5–6.6% real GDP, now 4th largest globally), driven by strong domestic demand, manufacturing and services expansion, and major infrastructure and policy reforms. The Indian logistics market is ~USD 290–300 bn (2024) and projected to reach ~USD 450–460 bn by 2030 (7–8% CAGR), with transport dominating spend but warehousing and value-added services growing fastest. Multiple flagship programmes: Dedicated Freight Corridors, Sagarmala, PM GatiShakti, NIP/NMP, National Logistics Policy, and Vision 2047 are reshaping multimodal infrastructure, reducing costs, and improving efficiency.

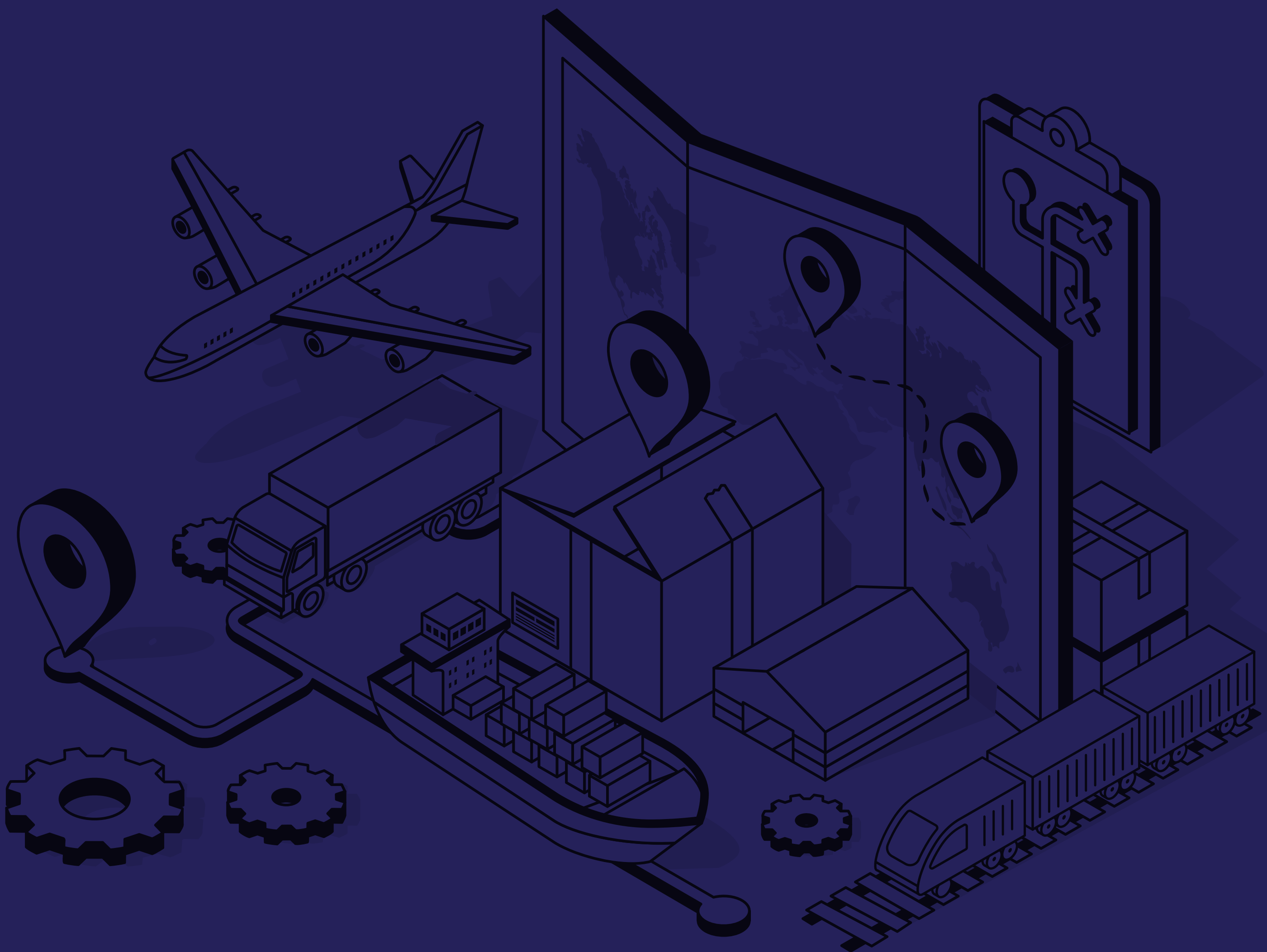
Express logistics emerges as a network-centric, time-definite, higher-cost but high-value segment supporting e-commerce, MSMEs, B2B manufacturing, and cross-border trade. It tracks the evolution from document-led to parcel-led traffic, the shift from simple transport to integrated 3PL/4PL solutions, and the growing role of technology (tracking, automation, control towers, data-driven optimisation) in unit economics and service reliability.

Domestically, surface express has gained share due to improved highways, DFCs, and near-air-like transit times at lower cost, while air express remains critical for premium and long-haul segments but constrained by capacity, schedules, and cost. Cross-border express is growing rapidly on the back of MSME exports and cross-border e-commerce. Policy and digital initiatives Express Cargo Export Hubs, ECCS, ULIP, customs digitisation, and API-based data exchange have improved clearance speed, visibility, and predictability, though infrastructure bottlenecks and high per-kg costs still limit full potential.

The sector faces structural hurdles: achieving profitable scale in a highly competitive market high cost of speed-driven operations (fuel, tolls, labour) uneven express-ready infrastructure lane imbalances between industrial and consumption centres strong seasonality and peak-period congestion complex, expensive last-mile (especially in dense urban and low-density rural areas) technology gaps among smaller partners high returns and failed deliveries in B2C regulatory and compliance friction and workforce shortages and churn in driver and delivery roles.

Looking ahead, leadership in Indian express logistics will be determined less by raw scale and more by network intelligence, agility, and technology depth. The report expects consolidation, tighter hub-and-spoke networks, greater use of EVs and green logistics, and deeper integration of road, rail, and air around high-reliability corridors. Express players will increasingly operate as tech-enabled platforms with AI-driven forecasting, automated hubs, and end-to-end digital interfaces. In global context, China is the volume and scale benchmark, the US is the revenue and service-intensity benchmark, and India is positioned as a fast-growing, still-standardising market whose competitive edge will come from combining rapid volume growth with structural reforms, digitalisation, and infrastructure upgrades.

Global Economy:
RESILIENCE AMID STRUCTURAL SLOWDOWN



The global economy in 2025 stands at a critical junction — exhibiting resilience amid ongoing uncertainty. According to the International Monetary Fund's World Economic Outlook (October 2025), global real GDP growth is projected to slow slightly from 3.3% in 2024 to 3.2% in 2025 and 3.1% in 2026, highlighting continued but moderate expansion as macro-financial conditions tighten and structural challenges persist. In nominal terms, global GDP is estimated to reach around USD 123.6 trillion in 2025, reflecting broad output expansion despite elevated risks and subdued momentum relative to the pre-pandemic long-term average growth rate.

Economic Landscape: A Fragile Yet Balanced Recovery

The world economy has displayed tenuous resilience, supported by early-year momentum in trade and improving financial conditions. Several large economies recorded stronger-than-expected growth in the first half of 2025 due to front-loaded trade, enhanced liquidity, and robust export performance — particularly from Asian economies in the technology sector. These trends have helped narrow output disparities as cyclical effects subside and global activity aligns more closely with potential output.

However, structural headwinds persist. Elevated interest rates, geopolitical uncertainty, and uneven productivity growth continue to weigh on global investment. Although inflation has eased, recovery remains uneven, and downside risks still dominate the near-term outlook. The IMF notes that the global economy is resilient but not dynamic, reflecting a transition toward slower yet more sustainable growth.

Global Trade and Investment Trends

Global trade growth has stabilized after the post-pandemic rebound but remains subdued relative to historical norms amid persistent supply chain fragmentation, rising protectionist pressures, and uneven demand across regions. According to the latest IMF outlook, global merchandise trade volume growth is projected to be modest in 2025, significantly below pre-pandemic averages (which historically averaged over 4% annually). This muted pace reflects a shift from quantity-driven trade toward more services and digital flows, as well as a growing emphasis on regionalization and nearshoring, as countries and firms seek supply-chain resilience and reduced exposure to geopolitical risks.

Investment activity continues to be constrained by a confluence of headwinds. High financing costs, resulting from a prolonged period of elevated policy rates, have dampened business capital expenditure, while fiscal consolidation efforts in many countries are limiting public investment. At the same time, structural challenges — including slower productivity growth in key sectors and uncertainty about future demand — are weighing on private investment decisions. Global public debt remains high as a share of GDP, reflecting the lingering effects of pandemic-era stimulus and ongoing fiscal support measures, which in turn constrain fiscal flexibility and amplify medium-term vulnerabilities.

Overall, the global economy in 2025 is not in crisis but clearly in transition. Growth near 3.2% signifies resilience, yet the underlying forces — high interest rates, subdued trade expansion, and persistent policy uncertainty — mark the emergence of a new era of moderated expansion. While headline inflation is easing, it remains uneven across regions, and fiscal and financial vulnerabilities persist, underscoring the importance of prudent policy coordination, targeted structural reforms, and strategic investment in sustainable growth drivers.

Global Outlook: Logistics Industry

For the logistics and supply chain sector, the global economic environment in 2025 presents a balanced mix of challenges and opportunities shaped by moderate growth, evolving trade patterns, and tighter financial conditions:

• Moderate growth in global trade will translate into slower expansion of shipment and freight volumes, making operational efficiency, cost optimization, and digital transformation essential for protecting margins.

• The continued regionalization of supply chains will increase demand for intra-regional transportation, warehousing, and last-mile networks, especially across Asia and fast-growing emerging markets.

• Elevated borrowing costs will keep capital expenditure selective, requiring investments in automation, green logistics infrastructure, fleet modernization, and capacity expansion to be closely aligned with long-term returns and productivity gains.

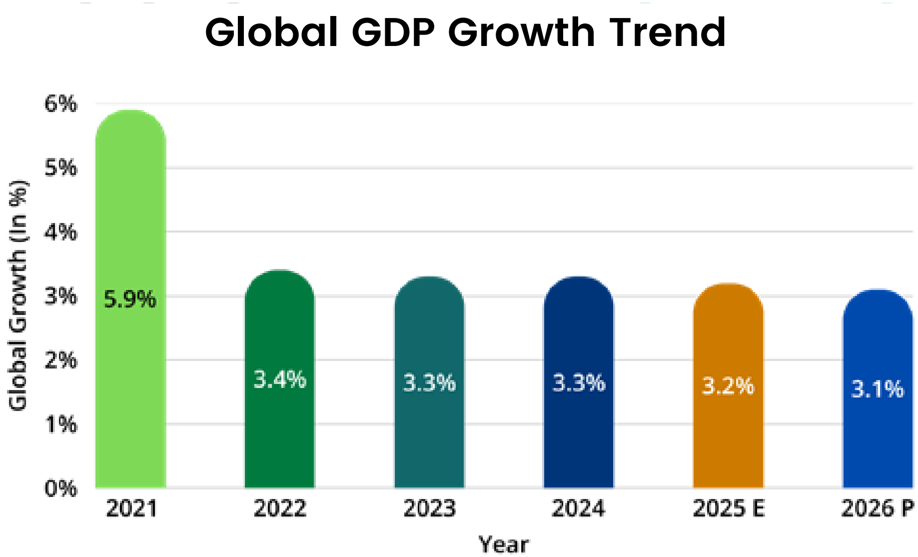
Logistics companies will increasingly prioritize projects with faster payback periods and measurable improvements in efficiency and service reliability.

• Compliance with evolving trade regulations, sustainability mandates, and digital integration requirements will become a core part of competitive strategy rather than a support function.

• Resilience, transparency, and agility will define network design, enabling firms to respond effectively to demand volatility and geopolitical uncertainty.

• Data-driven visibility, flexible network structures, and sustainable operating models will differentiate high-performing logistics providers.

Overall, success in 2026 will depend on strategic adaptation and regional strength, as the industry continues to move away from rapid globalization toward a model built on stability, efficiency, and long-term resilience. Logistics providers that effectively combine digital capabilities, network flexibility, and sustainable design principles will be best positioned to thrive in a world of slower yet more stable growth.



Source: IMF & Aviral Research & Analysis

Indian Economy

SUSTAINED ECONOMIC MOMENTUM

Amid a turbulent global economic environment, India continues to stand out as a pillar of stability and growth. The country remains the fastest-growing major economy, supported by strong domestic demand, sustained public investment, and ongoing structural reforms. According to the International Monetary Fund and recent government assessments, India's real GDP growth is projected at 6.5% in FY2024–25 and around 6.6% in FY2025–26, maintaining its leadership among major global economies. Growth in FY2023–24 was particularly strong at 8.2%, following 7.6% in FY2022–23, highlighting India's resilience even as global growth momentum softened.

Nominal GDP and global ranking: Nominal GDP for India was estimated at over USD 4.18 trillion in 2025, according to IMF-based economic data, reflecting robust current-price economic expansion, and India has become the world's fourth-largest economy by nominal GDP, overtaking Japan in global rankings. On the current trajectory, the landmark USD 5 trillion economy milestone is realistically achievable by FY 2028–29, driven by steady expansion in manufacturing, services, infrastructure, and digital sectors.

India's macroeconomic environment remains stable, supported by controlled inflation, prudent fiscal management, and resilient domestic demand. The Reserve Bank of India has maintained a calibrated monetary stance, keeping the repo rate at 6.5%, balancing inflation control with growth support. Inflation has moderated to around 5%, remaining within the RBI's tolerance band, aided by easing food and fuel prices and improved supply conditions.

Sectoral Growth Dynamics

India's growth story is deeply rooted in the performance of its core sectors. The manufacturing sector has emerged as a major growth driver, supported by initiatives such as Make in India and the Production Linked Incentive (PLI) schemes, which are boosting domestic production, technology adoption, and export diversification. Capacity utilization in industries such as automotive, electronics, machinery, and renewable energy equipment has improved significantly, reflecting renewed business confidence.

The services sector, contributing over 50% of GDP, continues to lead overall economic performance. Digital services, IT exports, fintech, logistics, professional consulting, and global capability centers are driving sustained momentum and reinforcing India's position as a global leader in technology-enabled and knowledge-driven services.

Agriculture, though a smaller contributor to GDP, remains vital for employment and rural consumption. The sector has shown resilience despite climate-related challenges, supported by improved irrigation, mechanization, and government support programs.

Investment Climate and Business Confidence

Investment activity remains one of the most dynamic components of India's growth story. Gross Fixed Capital Formation (GFCF) has risen to nearly 34% of GDP, indicating a revival in private capital expenditure alongside sustained public investment.

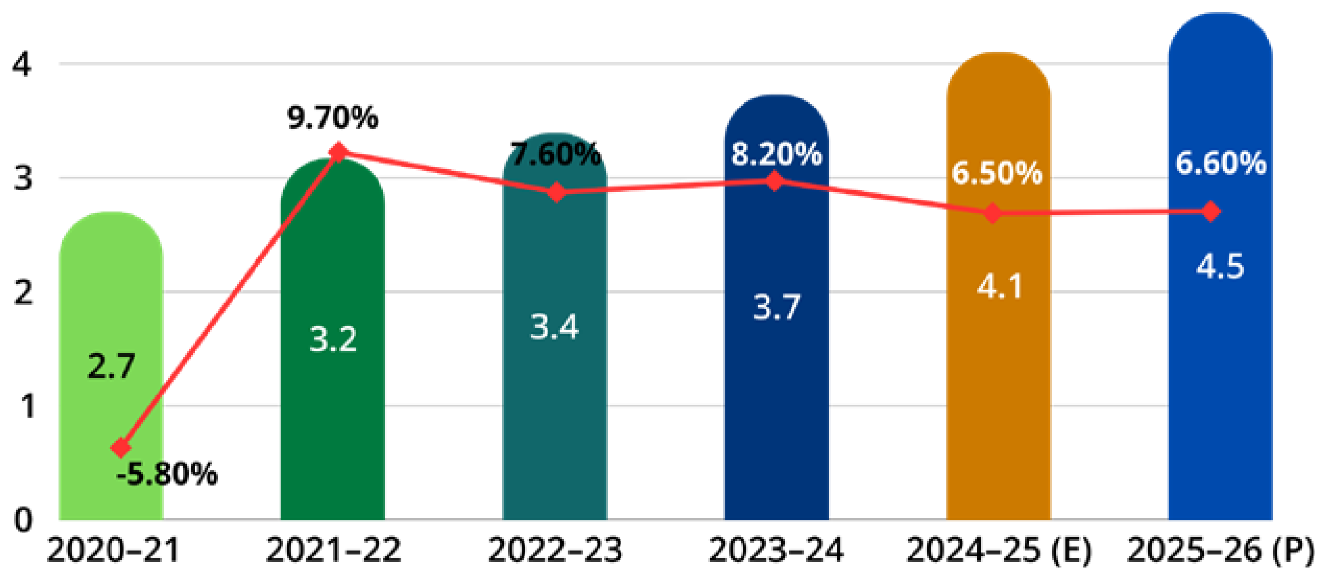
Foreign Direct Investment inflows remain resilient, averaging above USD 70 billion annually, with strong participation in electronics manufacturing, renewable energy, logistics, and digital platforms.

Reforms in ease of doing business, digital governance, and supply-chain diversification under the "China+1" strategy has helped in improving country's position among global manufacturing and investment destination. Improved corporate balance sheets, rising capacity utilization, and policy predictability have further enhanced business confidence.

Medium to long -Term Outlook

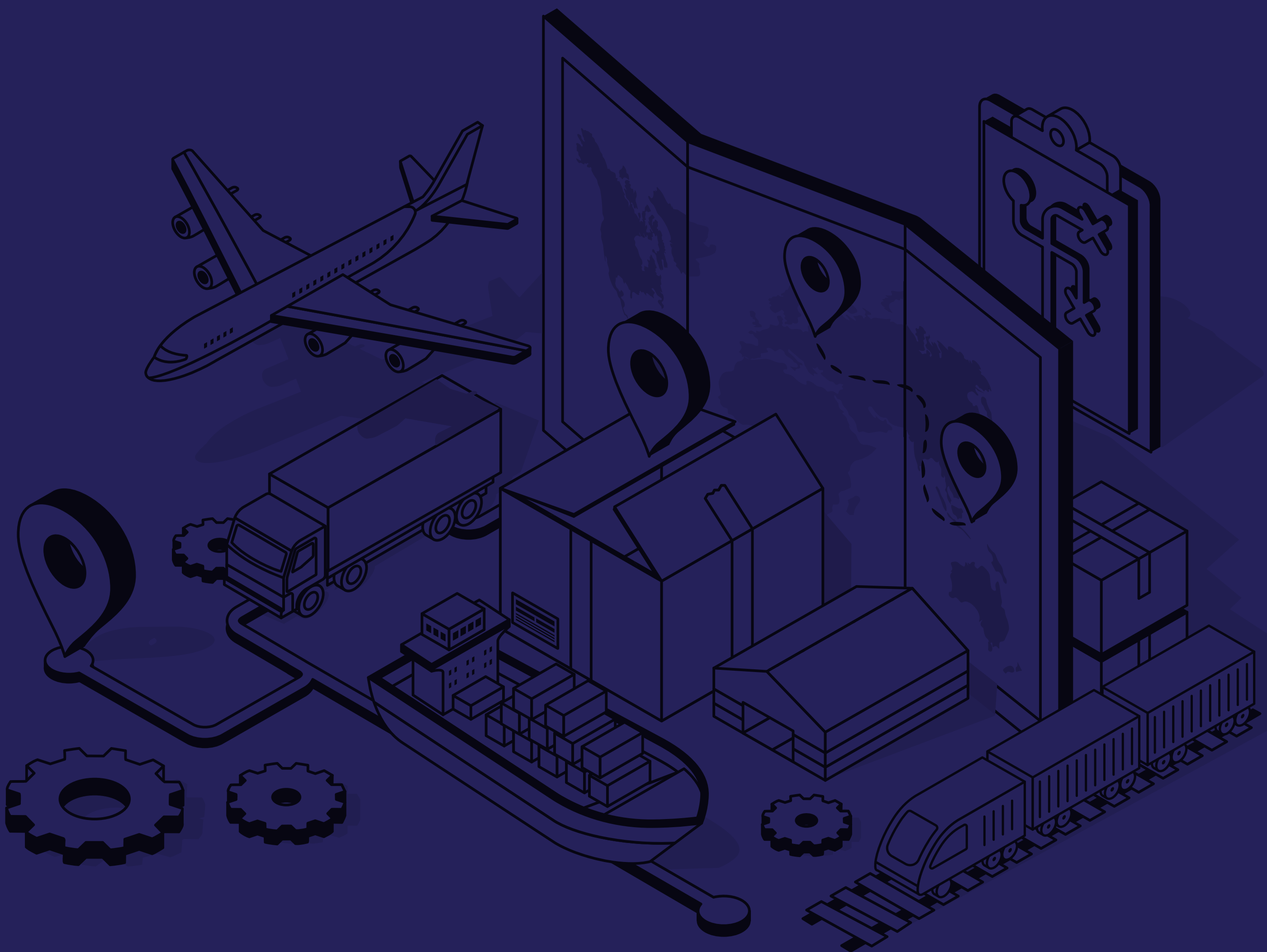
Looking ahead, India's medium-term to long-term growth outlook remains highly optimistic, anchored in its structural strengths, policy continuity, and reform momentum. The focus on digital transformation, renewable energy, and infrastructure modernization will sustain economic expansion in the coming years. With its combination of demographic strength, digital progress, and structural reforms, India is poised to remain a central pillar of global economic growth in the coming decade, shaping the future of trade, industry, and sustainable development across emerging markets.

India's GDP Growth Trajectory (FY, Trillion USD)



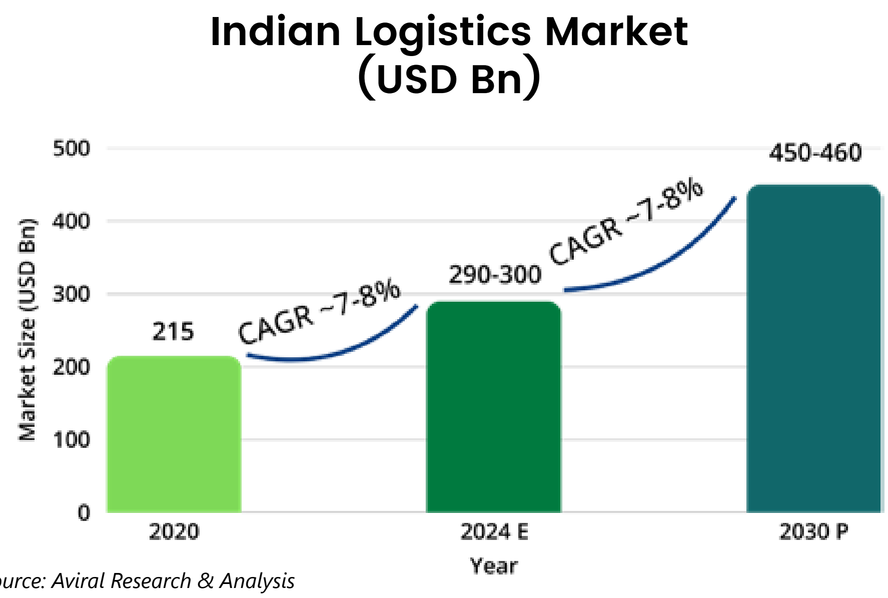
Source: IMF & Aviral Research & Analysis

Logistics Industry
OVERVIEW



India today stands as the fourth-largest economy in the world, driven by strong contributions from the services, manufacturing, and agricultural sectors. Following a robust post-pandemic recovery of 15.3% growth during 2021–2022, the country has maintained its position as the world's fastest-growing major economy, with a real GDP growth rate of 6.5%* in 2024–25. The expansion of logistics networks and supply chains continues to play a pivotal role in this growth, as stronger supply chains form the backbone of a more resilient and globally competitive India.

According to Aviral Research & Analysis, the Indian logistics market (Direct Spent) is estimated at USD 290–300 billion in 2024, projected to reach approx. USD 450 - 460 billion by 2030``, growing at a CAGR of 7–8% between 2024 and 2030. Growth will be driven by favorable policies, infrastructure investments, and digital adoption. The transportation segment continues to dominate revenues, while warehousing and distribution services remain the fastest-growing verticals, supported by e-commerce, FMCG, and manufacturing demand.



Source: Aviral Research & Analysis

 # constant currency conversion

Estimation of logistics cost for a country is quite complex. In 2016, Armstrong & Associates (A&A) used an Artificial Neural Network (ANN) model to estimate India's logistics costs which landed around 13% of GDP. This approach uses readily available economic/infrastructure data from developed nations to build a predictive framework using ANN model. On the other hand, comprehensive studies have also been undertaken by other bodies/department like the DPIIT-NCAER, using hybrid methods. A 2023–24 assessment by NCAER for DPIIT indicates logistics costs have moderated to 7.97% of GDP and 9.09% of non-services output. Other research also indicate that sustained policy reforms and multimodal infrastructure integration have begun improving efficiency.

Over the past decade, India's logistics landscape has undergone transformative changes—driven by the implementation of GST, rapid road infrastructure development, and automation-led efficiency gains. It is broadly estimated that, these reforms have collectively improved logistics cost efficiency. Further improvements are anticipated with the advancement of key government programs including:

• **Dedicated Freight Corridors (DFCs)** - As of March 2025, 96.4% of the total corridor length (2,741 km out of 2,843 km) is operational. The Eastern DFC was fully completed and commissioned in February 2024, while the Western DFC is nearing completion, with the remaining 3.6% section in Maharashtra (50% complete) expected to be finished by December 2025. Once fully operational, these corridors will enhance rail freight efficiency and increase its modal share (currently 18%) by 2030, supporting a sustainable modal balance.

• **Sagarmala Programme** - As of March 2025, 272 projects under the Sagarmala portfolio (worth ₹1.41 lakh crore*) have been completed. In total, 839 projects valued at ₹5.79 lakh crore* have been identified. The upcoming Sagarmala 2.0—estimated at ₹75,000 crore—will focus on shipbuilding, port modernization, inland waterways, and coastal logistics, aligning maritime development with India's Vision 2047 goals.

• **PM GatiShakti National Master Plan** - As of mid-2025, 293 projects worth ₹13.59 lakh crore* have been evaluated through its Network Planning Group. All 36 States/UTs and 57 Ministries are integrated into its GIS-based digital platform, which now hosts over 1,700 data layers for synchronized infrastructure planning. This initiative is reshaping multimodal connectivity, enabling last-mile optimization and reducing logistics lead time.

• **National Infrastructure Pipeline (NIP) & National Monetisation Pipeline (NMP)** - Both pipelines are crucial in expanding India's logistics backbone. The NIP currently tracks 14,000+ projects worth USD 2.6 trillion*, while the NMP focuses on monetizing existing assets in roads, railways, and ports to channel private investment into high-impact logistics infrastructure.

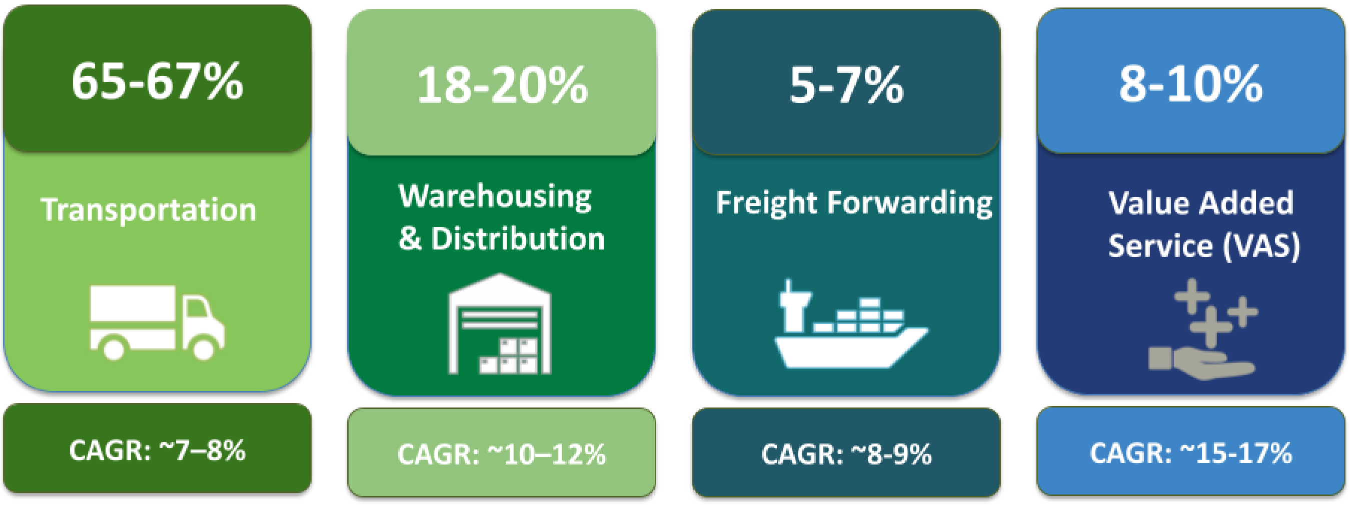
National Logistics Policy (NLP)- Introduced in 2022, the NLP integrates processes, infrastructure, and digitalization through initiatives such as ULIP (Unified Logistics Interface Platform) and the Logistics Data Bank. As per Aviral Research & Analysis, the NLP's ongoing implementation has begun improving supply-chain transparency and interoperability, moving India closer to achieving global cost benchmarks by 2030.

• **Vision 2047 / Amrit Kaal Framework** - India's logistics and maritime sectors are integral to the broader national transformation roadmap under Amrit Kaal (2022–2047). The government has announced plans to invest ₹80 lakh crore under the Maritime Amrit Kaal Vision 2047, aiming to transform India into a global trade and logistics hub by 2047. The plan focuses on green ports, sustainable shipping, digital infrastructure, and multimodal connectivity — aligning with India's goal of becoming a developed economy by its 100th year of Independence. Looking ahead, Aviral Research & Analysis projects India's logistics sector to remain a cornerstone of national development, driving economic growth, employment generation, and export competitiveness. With continued infrastructure investments and digital transformation, India is set to emerge as a leading logistics hub in Asia by the end of this decade — and a critical pillar in the nation's Vision 2047 journey toward becoming a developed economy.

*``Market Estimate. Aviral Research & Analysis *PIB*

Service Mix:

India's logistics ecosystem demonstrates a diverse service composition, reflecting the sector's progressive shift toward integration, specialization, and digital transformation. Transportation continues to dominate, accounting for nearly 65–67%# of total logistics expenditure, primarily driven by road freight, which handles over 65% of domestic cargo movement. This dominance stems from the extensive highway network, flexible point-to-point connectivity, and strong last-mile penetration. The transportation segment is growing at a CAGR of around 7–8%, supported by investments in expressways, Dedicated Freight Corridors (DFCs), multimodal parks, and increasing adoption of fleet digitization and route optimization technologies that aim to improve cost efficiency and transit reliability.



Source: Aviral Research & Analysis, – Market segmentation and growth estimates.

Warehousing and Distribution, contributing about 18–20%# of total logistics spend, has emerged as one of the fastest-growing verticals, expanding at a CAGR of ~10–12%. This growth is driven by the rapid expansion of e-commerce, FMCG, pharmaceuticals, and organized retail, along with the rising adoption of 3PL and 4PL models. Increasing demand for Grade-A warehouses, automation, cold storage, and large-format fulfillment centers has transformed warehousing from a support function into a strategic infrastructure asset. Government initiatives such as logistics parks, multimodal hubs, and cold-chain development, along with REIT-based investments, are further accelerating institutionalization and scalability in this segment.

Freight Forwarding, accounts for around 5–7%# of the total logistics market and is growing at a CAGR of approximately 7–8%. It plays a critical role in facilitating India's international trade and multimodal movements. Growth is being supported by rising EXIM volumes, modernization of port infrastructure, customs digitization, adoption of single-window clearance systems, and increasing integration with platforms such as ULIP. The segment is gradually transforming into a technology-driven service, improving transparency, documentation efficiency, and cargo traceability.

Value-Added Services (VAS), representing nearly 8–10%# of total logistics spend, are witnessing the fastest growth with a CAGR of about 15–17%. These services include packaging, labeling, kitting, reverse logistics, installation, customization, and light manufacturing activities. The rapid expansion of D2C brands, omnichannel retail, and customer-centric supply chains has significantly boosted demand for VAS. This segment is increasingly becoming a key differentiator for 3PL and 4PL players, enabling them to offer integrated, end-to-end logistics solutions and move beyond pure transportation or storage-based business models.

Modal Mix:

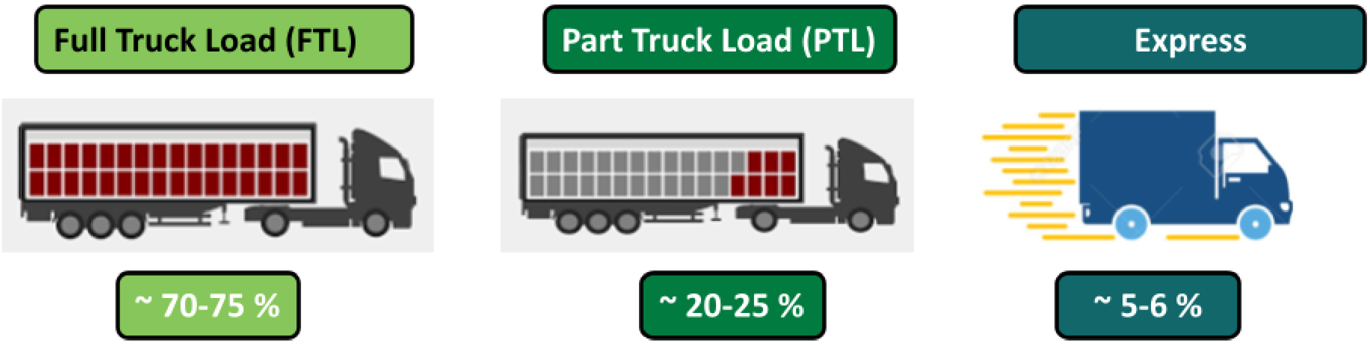
Source: Aviral Research & Analysis

Road Transport:

India's road transport forms the backbone of its logistics ecosystem — vast, vibrant, and indispensable. As of March 2025, the total road length exceeds 6.3 million km, including 146,204* km of National Highways and 179,535* km of State Highways, making it the world's second-largest road network. This network handles nearly 70% of freight and 85% of passenger traffic, reinforcing roads as the dominant mode of transport. The India road freight transport market is estimated at USD ~170 billion# in 2024 and is projected to grow to around USD ~255 billion# by 2030, reflecting a CAGR of approximately 7.0 - 7.5% over this period India's trucking ecosystem comprises roughly 12.5 million trucks, operated largely by small fleet owners and individual truckers, underscoring the high fragmentation of the sector. Despite offering unmatched flexibility and reach across the country, the road freight segment continues to face persistent challenges such as high operating costs, ageing fleets, low productivity, and fuel inefficiencies, which constrain profitability and operational efficiency.

The transportation segment can be further divided into:

*# Market Estimate. Aviral Research & Analysis *PIB*

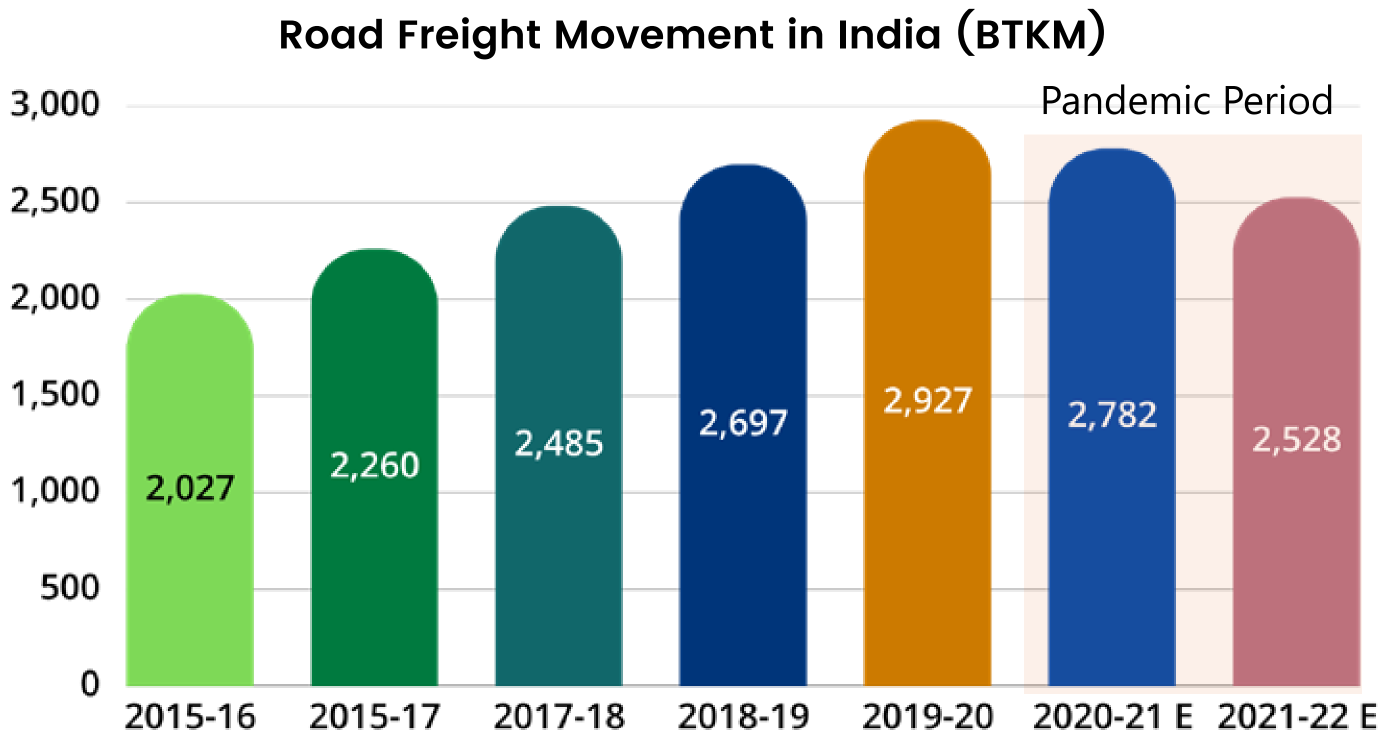


Source: Aviral Research & Analysis
Note: Excluding Intra-city

Transportation forms over 60% of total logistics expenses, with road transport costing ₹11.03 per tonne-km — significantly higher than rail at ₹1.96.

Driven by e-commerce, manufacturing, and consumption growth, road freight continues to expand at 7–8% annually. As India works to lower logistics costs to ~8% of GDP, road transport will remain pivotal for trade competitiveness, sustainability, and digital transformation.

According to the Ministry of Road Transport & Highways (MoRTH), India's road freight movement grew consistently from 2,027 billion tonne-kilometres (BTKM) in FY 2015-16 to 2,927 BTKM in FY 2019-20, registering a CAGR of nearly 9 %. The pandemic period (FY 2020-21 and 2021-22) caused a temporary decline of around 5–9%, but freight volumes rebounded quickly, reaffirming the resilience of India's road logistics sector. It is estimated that long term CAGR is hovering approx. 7%-8%#.



Source: MoRTH, Niti Aayog, Crisil, Aviral Research & Analysis

Note:

1) Estimate using MoRTH 2019–20 figure (2,927) and applying an industry-reported ~5% contraction in FY2020 (pandemic impact).

2) Estimate applying a further ~9% pandemic year contraction (industry source / CRISIL-type impacts) sequentially to the prior estimate. Strongly labelled estimated.

Rail Transportation

India's railways represent both tradition and transformation. Once the lifeline of national freight movement — commanding nearly 80% share in 1950 — rail's modal dominance declined to around 24%# in 2023, as road transport expanded through flexible connectivity and faster turnaround. That balance, however, is shifting again as Indian Railways (IR) undergoes one of the largest freight-centric infrastructure upgrades in its history. In FY 2024–25, Indian Railways achieved a record 1,617.38 million tonnes (MT)* of originating freight loading — a 1.68% rise from 1,590.68 MT* in the previous year (PIB).

Freight now contributes nearly 65% of IR's total revenue, with notable double-digit growth in container (+19.7%) and parcel (+29%) segments. This surge underscores not only volume gains but also better operational throughput and asset utilisation.

*# Market Estimate. Aviral Research & Analysis *PIB*

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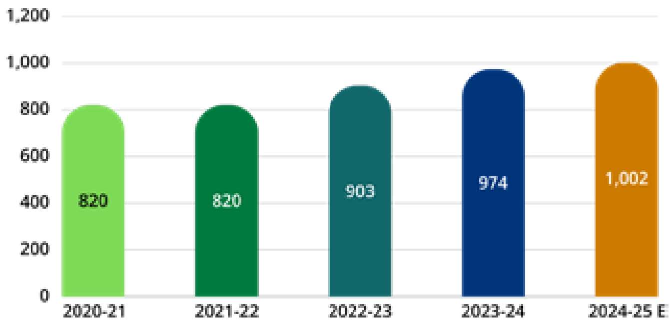
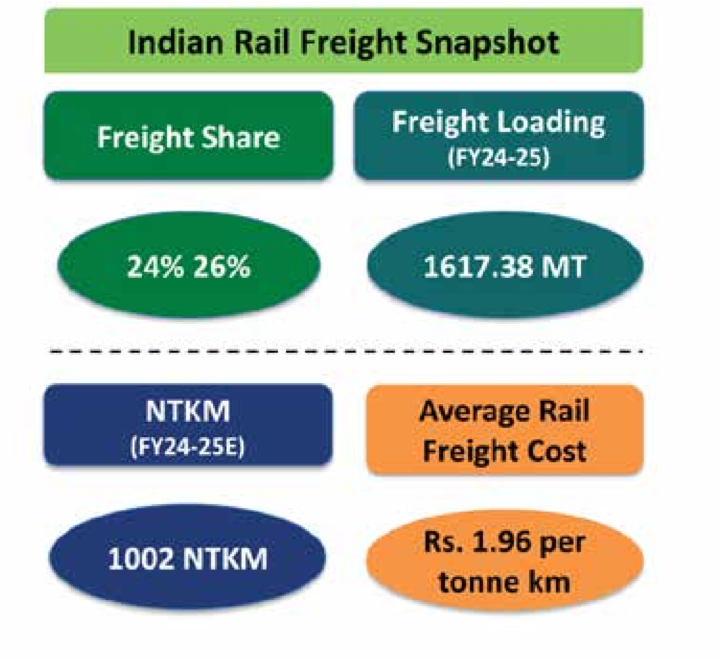
This operational growth is mirrored in the Net Tonne-Kilometre (NTKM) performance steady increase underscores enhanced asset utilisation, route efficiency, and long-haul throughput. According to the DPIIT–NCAER Cost Assessment Report (September 2025), the average rail freight cost in India is ₹ 1.96 per tonne-kilometre, making it the most economical mode for long-haul and bulk cargo. Supported by electrification, higher axle-load wagons, and digital operations, rail remains the most efficient and cost-effective backbone of India's freight logistics network.

Rail Freight in NTKM (in billions)



Source: Aviral Research & Analysis



Source: Indian Railways, PIB, Aviral Research & Analysis

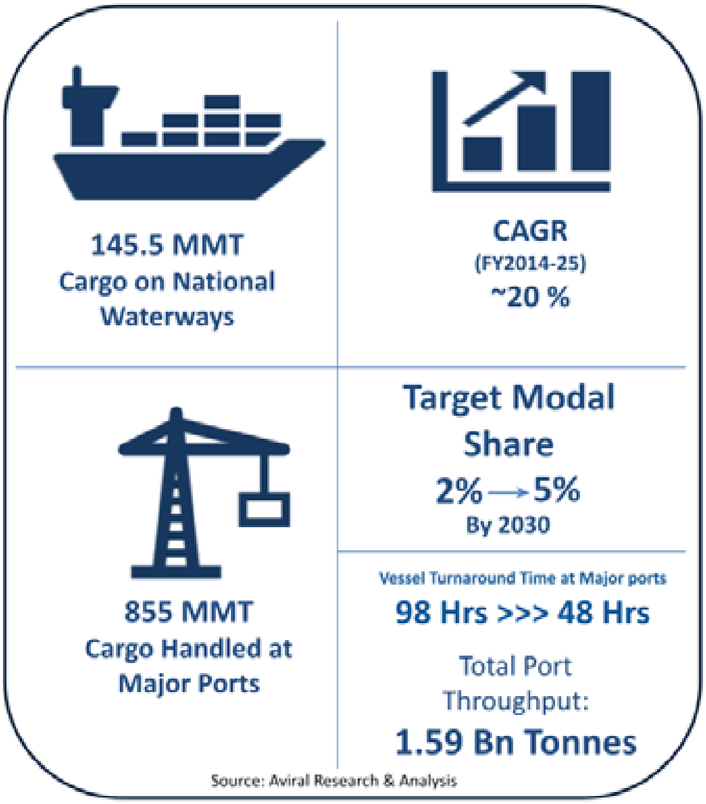
Infrastructure Transformation: DFC and GCT Momentum

As of August 2025, nearly 2,741 km of the planned 2,800 km Dedicated Freight Corridor (DFC) network is operational, carrying 300–325* freight trains per day and significantly decongesting passenger routes. Complementing this, the Gati Shakti Multi-Modal Cargo Terminal (GCT) policy is enabling private investment in modern terminals, wagons, and digital freight systems. Tariff reforms including Short-Lead Concessions, Empty Flow Rebates, and Commodity-specific incentives are improving commercial viability and driving multimodal integration.

The National Rail Plan 2030 envisions rail's freight market share rising to 40%* by 2040 and 44%* by 2051, supported by containerisation, electrification, and terminal expansion. Under the frameworks of PM Gati Shakti and the National Logistics Policy 2022, IR's freight strategy now aligns closely with India's multimodal logistics vision integrating ports, roads, and inland waterways to create a seamless, efficient cargo movement network.

Waterways (Inland & Coastal)

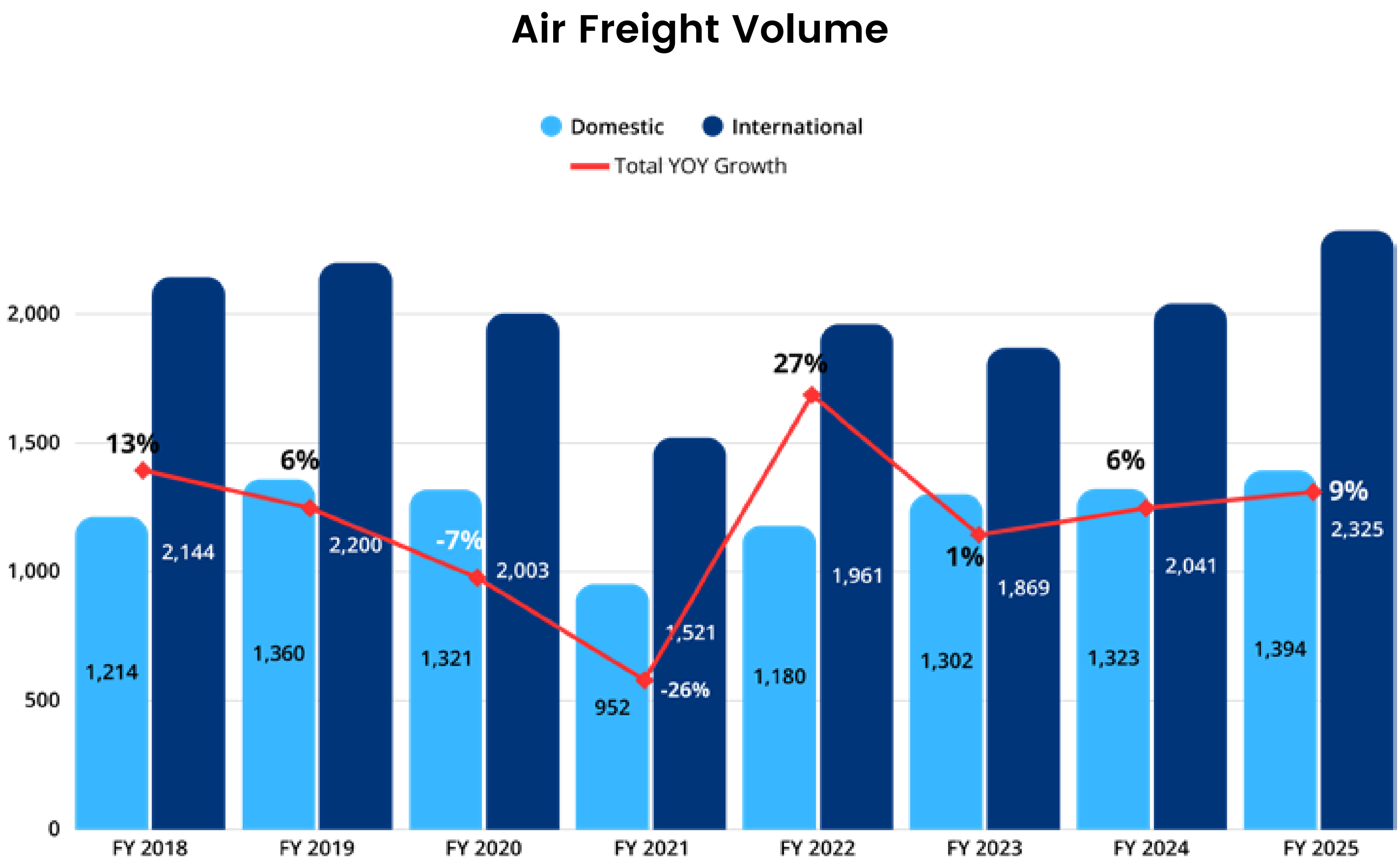
India's waterways — encompassing both inland and coastal routes — are fast emerging as sustainable and cost-efficient alternatives in the country's freight network. As per data released by the Press Information Bureau (PIB) and the Inland Waterways Authority of India (IWAI), cargo traffic on National Waterways increased sharply from 18.1 MMT* in FY2013–14 to about 145.5 MMT* in FY2024–25, reflecting a strong CAGR of around 20.9%*. During this period, the number of operational National Waterways expanded significantly to 29, compared to only 3 waterways a decade ago, highlighting the rapid development of inland water transport infrastructure under government initiatives. Meanwhile, coastal shipping, which already handles nearly 95% of India's trade by volume and about 70% by value, has seen steady growth. Major ports handled about 855* MMT in FY2024–25, up from 819* MMT a year earlier, while total port throughput reached around 1.59 billion tonnes. Operational efficiency has improved substantially, with vessel turnaround time reduced from about 93 hours to under 48 hours, placing Indian ports among the more competitive globally. While waterways account for around 7–8%# of India's overall freight movement, this figure includes international maritime cargo handled at ports. In contrast, the combined share of inland waterways and domestic coastal shipping currently stands at only about 2% of total freight movement. With clear policy direction through Sagarmala, Maritime India Vision 2030, and Amrit Kaal Vision 2047, India aims to raise these domestic waterways share from around 2% to about 5% by 2030, positioning waterways as a strategic enabler of low-cost, low-carbon, and sustainable logistics within the country's multimodal freight ecosystem.



*# Market Estimate. Aviral Research & Analysis *PIB*

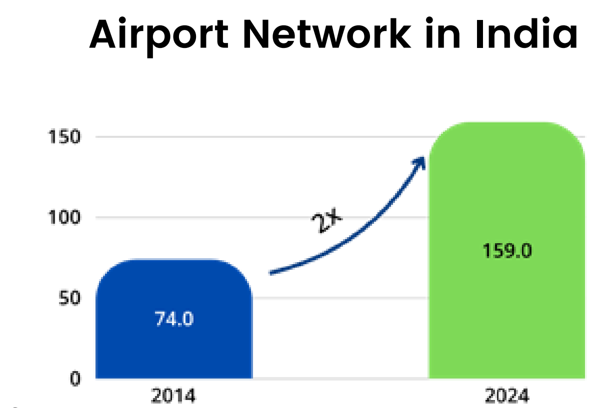
Air

Air freight in India represents the high-value, time-sensitive end of the logistics spectrum. Despite contributing less than 2% of total freight volume, the air cargo sector plays a vital role in sectors such as pharmaceuticals, perishables, electronics, automotive, and e-commerce express. According to data from the Airports Authority of India (AAI), Indian airports collectively handled about 3.7 million tonnes of air cargo in FY2024–25 (April 2024–March 2025), up from approximately 3.36 million tonnes in FY2023–24. This growth reflects the continuation of India's post-pandemic recovery in air freight volumes, driven by strong performance in international cargo and steady expansion in domestic cargo movement. Based on Aviral research & analysis estimates, In FY 26 growth rate of air cargo will taper down to approx.6%, largely due to dip in growth of international cargo. Domestic air cargo will be witnessing slight improvement of 60 – 80 BPS.



Source: AAI, Aviral Research & Analysis

India's airport network expansion has been remarkable. The number of operational airports has grown from 74 in 2014 to 159 in 2024, powered by the UDAN Regional Connectivity Scheme and airport modernization efforts by AAI and private operators.
Air freight remains the most expensive mode (average cost ~₹72 per tonne-km), it is irreplaceable for industries that value time over cost. As of FY 2025, air cargo volume grew ~10% year-on-year, supported by export diversification, express logistics, and high-value manufacturing. India aims to handle 10 million tonnes of air cargo by 2030, underlining the government's commitment to building world-class logistics infrastructure.



Source: PIB

Pipeline:

Pipeline transportation plays a crucial yet limited role in India's freight movement, accounting for around 1 %# of total modal share. It primarily caters to the movement of petroleum products, natural gas, and crude oil, offering a cost-efficient, reliable, and low-emission mode for bulk liquid transport. India's pipeline network spans over 32,000 km* of crude and product pipelines and is steadily expanding under initiatives such as PM Gati Shakti and National Gas Grid. While its current scope is sector-specific, increasing investments in energy infrastructure and cross-country connectivity are expected to enhance the share of pipelines in India's overall logistics mix in the coming years.

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Indian Express Logistics

INDUSTRY OVERVIEW

India's express logistics sector has evolved into a critical pillar of the national economy, supporting e-commerce, MSMEs, manufacturing, and trade. As reflected in the graph, the market has expanded from around USD 3 billion in FY2016–17 to approximately USD 9–10 billion in FY2024–25 at a strong CAGR of about 15–17%, largely driven by the rapid growth of e-commerce. Going forward, the market is projected to reach USD 18–19 billion by FY2029–30 at a relatively moderate CAGR of 13–15%, not because demand is weakening, but because the e-commerce segment is gradually transitioning from a hyper-growth phase to a maturity and stabilization phase. With a much larger base, percentage growth appears lower even though absolute value addition remains strong, and future growth will be increasingly supported by B2B express, MSME supply chains, manufacturing-led distribution, network optimization, and service diversification, making the industry more balanced and structurally mature.

The sector's expansion has been driven by major structural shifts such as the boom in e-commerce, growth in MSME exports, increasing preference for time-bound and reliable deliveries, and rapid adoption of digital technologies like automation, tracking systems, and data-driven operations. The express logistics industry also played a vital role during the COVID-19 pandemic by maintaining essential supply chains, ensuring uninterrupted movement of critical goods, and supporting India's overall economic recovery through its nationwide delivery network.

By FY2030, the Indian express logistics market is projected to nearly double in size to USD 18–19 billion while generating approximately 6.5–7.5 million jobs, up from around 2.5–2.6 million in FY2025. The sector also makes a significant contribution to government revenues, with estimated GST collections of USD 1–1.5 billion and around USD 650 million in customs duties in FY2024, highlighting its growing importance not only as a logistics backbone but also as a key contributor to India's fiscal ecosystem.

The domestic express segment, accounting for nearly 70% of the total market (USD 6.4–6.5 billion#), led by surface express services that enable efficient intercity connectivity. The international express segment, comprising the remaining 30%, is expanding rapidly on the back of cross-border e-commerce, MSME digitization, and manufacturing exports.

Post-pandemic shifts in consumer behavior particularly rising smartphone penetration, digital payments adoption, and Tier II and Tier III market expansion have reshaped the sector's growth trajectory. The rise of quick commerce, hyperlocal delivery, and direct-to-consumer (D2C) models has made B2C and C2C shipments the new growth engines, now contributing over 55% of total express volumes, surpassing traditional B2B movement.

Today, express logistics contributes nearly 60%# of India's B2C logistics market, valued at USD 4–4.5^^ billion, yet per capita e-commerce spending remains low at around USD 50, signalling vast untapped potential. Supported by policy reforms such as Bharatmala Pariyojana, GST, E-Way Bill, and FASTag, along with continued digital and infrastructure expansion, India's express logistics sector is poised to become a USD 20+ billion powerhouse by FY2030, anchoring the country's transition toward a faster, more efficient, and technology-led logistics future.

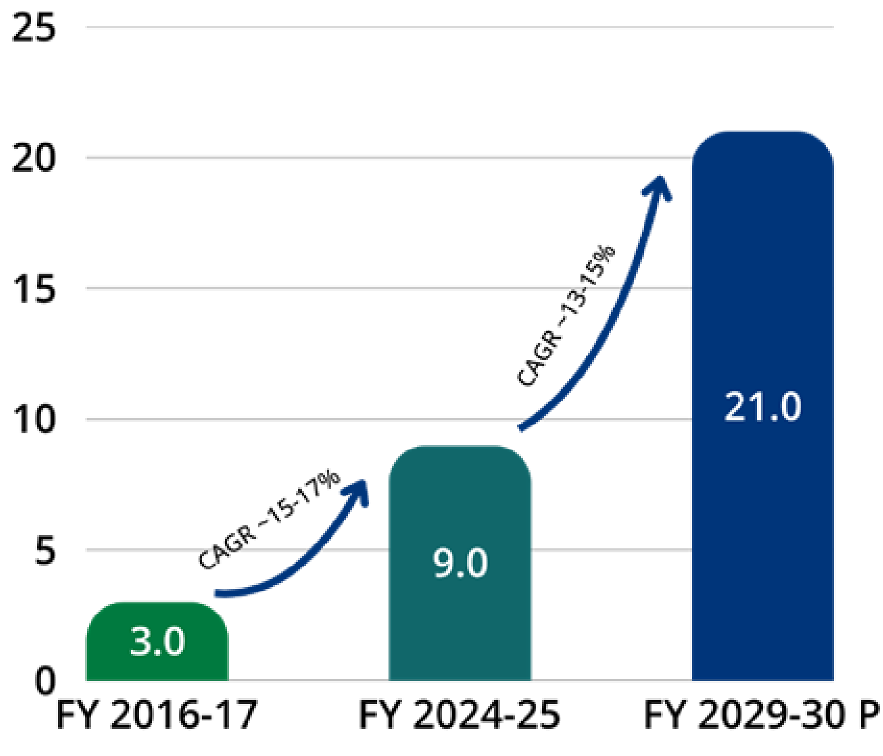
Express Industry Value chain

The Express Logistics Value Chain represents the end-to-end movement of shipments from the shipper to the final consignee through a structured flow of First Mile, Mid Mile, and Last Mile operations. Each stage adds value by consolidating, transporting, sorting, and delivering shipments with speed and reliability.

The Express Logistics Value Chain begins in the First Mile, where shipments from shippers—individuals, corporates, and OEM suppliers—are collected and moved to the nearest PUD Centre for scanning, sorting, and consolidation. From the PUD Centre, shipments are forwarded to the Origin Hub, where they are prepared and aggregated for long-distance movement in the Mid Mile. Based on service requirements, parcels travel either by air (~ 0–2 days) for time-sensitive deliveries or by road (~ 2–6 days) for cost-efficient surface express movement. Upon reaching the Destination Hub, shipments are deconsolidated, verified, and routed to the local PUD Centre, where they are arranged for area-wise dispatch.

The value chain concludes in the Last Mile, where delivery associates ensure timely handover to consignees—individuals, corporates, or business locations—thus completing the end-to-

Indian Express Logistics Market



Source: Aviral Research & Analysis

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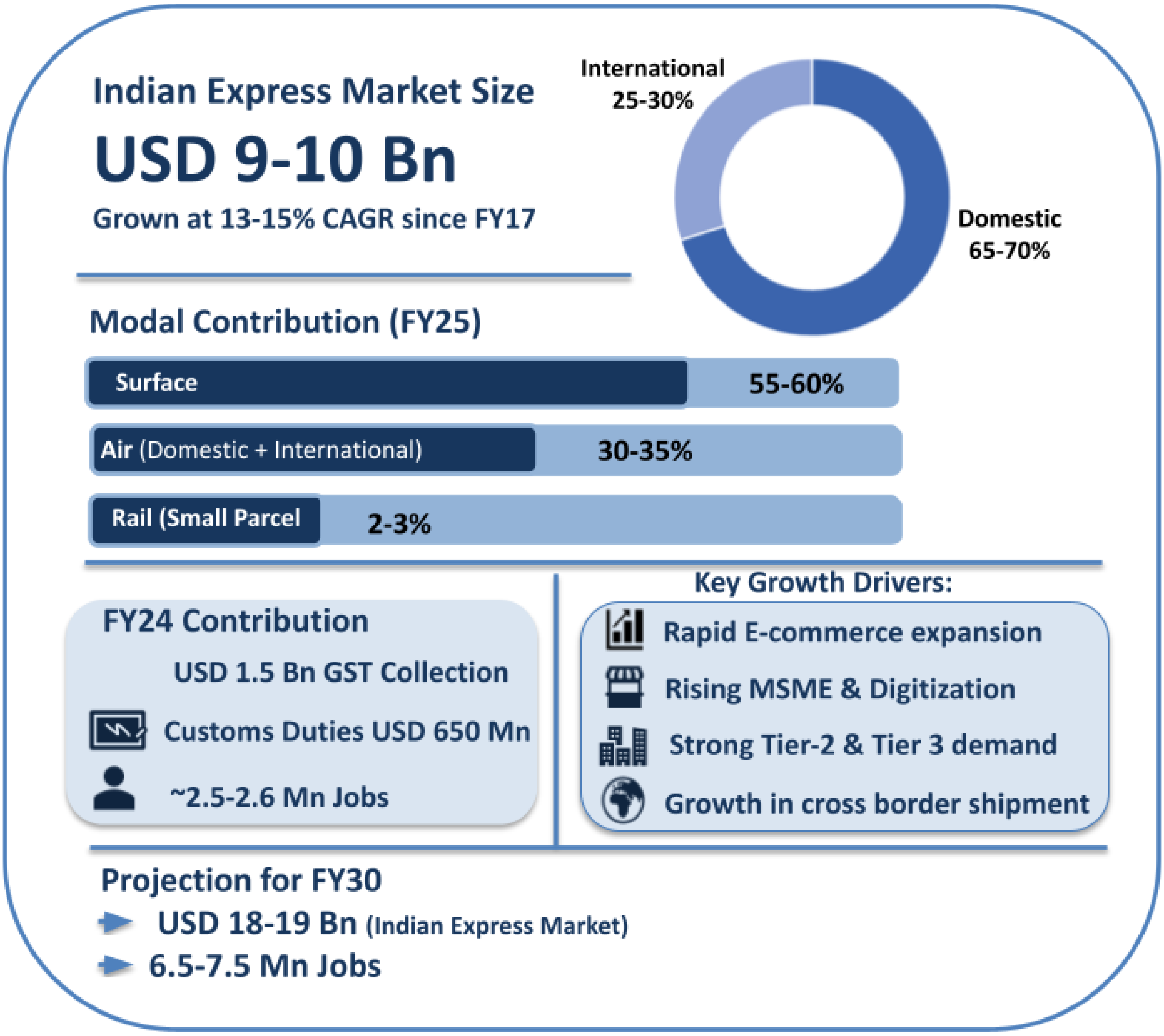
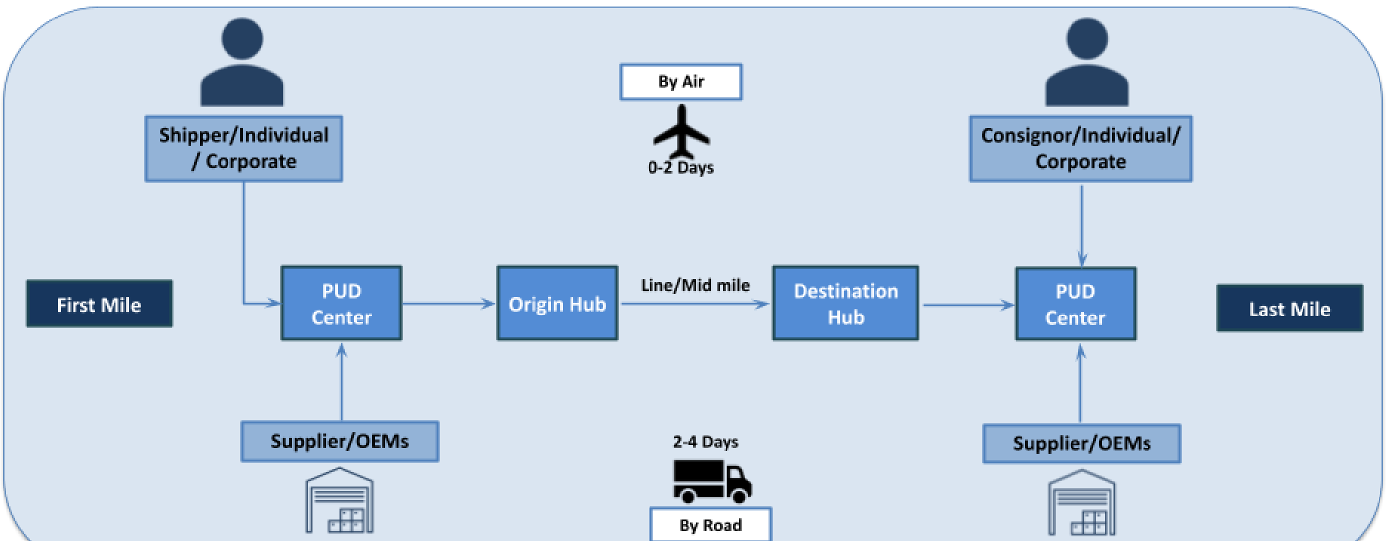
end express movement.

Contribution of first mile and last mile together varies significantly in B2B and B2C shipments of express. In B2C segment FM/LM cost account for over 48 – 55% of total fulfilment costs Vs 18 – 20% in case of B2B segment. Cost factors are driven by manpower-intensive activities such as pickup, sorting, routing, and delivery. Most express shipments weigh less than 25-30 kg per unit, making them well-suited for both air and road networks.





Source: Aviral Research & Analysis

Stakeholder Ecosystem (Four Pillar Model): Indian Express Industry

A structured view of the key stakeholder group enabling express logistics operations in India.

Each of these stakeholder groups contributes uniquely to the express delivery cycle. Operators run the core network, customers generate demand, enablers strengthen operational capability through infrastructure and technology, and governance bodies ensure regulatory alignment. Together, these pillars form the backbone of India's fast-growing express logistics sector, especially as e-commerce, MSMEs, and quick-commerce models drive higher expectations around speed, visibility, and service quality.

Competitive Intensity:

The competitive intensity in India's express logistics industry is very high, shaped by fast-growing parcel volumes, the dominance of e-commerce, the rise of captive logistics networks, and aggressive network expansion by both national and regional players. The industry, valued at roughly USD 9–10^^ billion in FY25, is expanding at a projected 13–15% CAGR toward FY30. However, growth has intensified rivalry rather than eased it, as service expectations rise and margins tighten.

A major structural driver of competitive intensity is the high bargaining power of buyers, particularly e-commerce platforms, which account for 55–60%# of overall express (CEP) volumes.

Overall, competitive intensity remains extremely high due to:

- Strong buyer power and aggressive price pressure in e-com logistics
- Approx 10-12 organized B2B express players at national level
- Rapid growth of captive logistics networks (ATS, Ekart, Valmo) in e-com logistics
- Fragmented competition from numerous regional express operators
- High fixed-cost structure requiring scale for profitability
- Increasing service expectations (speed, reach, visibility, returns)
- Technology-led operations becoming mandatory
- Rail emerging as a growing substitute for long-haul mid-mile

To remain competitive, express logistics companies are prioritizing automation, multimodal optimization, EV-based last-mile delivery, Tier-2/3 expansion, lane-level profitability analysis and overheads optimization. The industry is also expected to move toward greater consolidation, with mid-sized and regional players likely to pursue alliances or mergers to maintain competitiveness.

Porter's Five Forces for India's Express Logistics Sector

A comprehensive assessment of competitive pressures shaping India's express logistics market across e-commerce, parcel delivery, captive logistics, and multimodal mid-mile systems.

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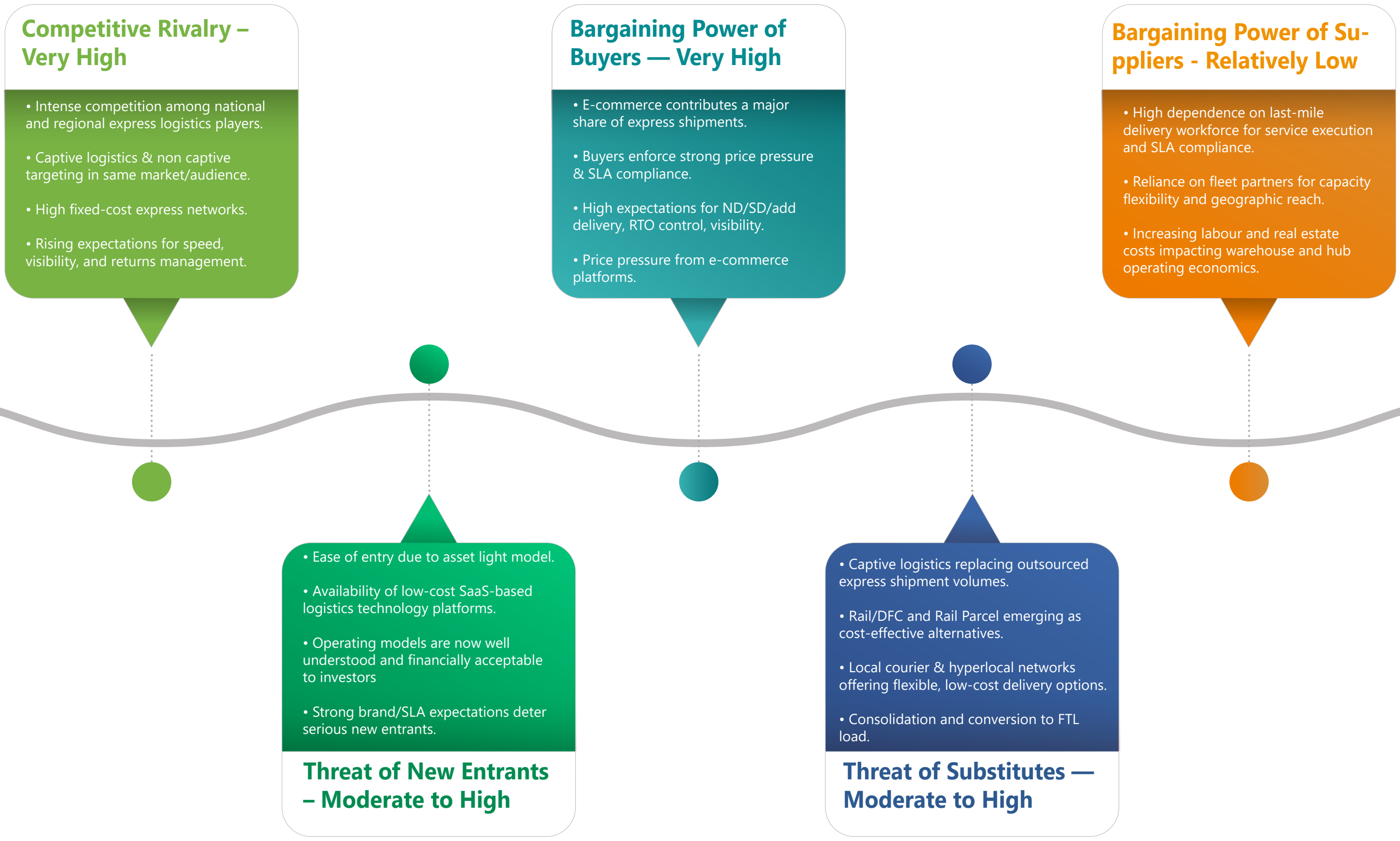
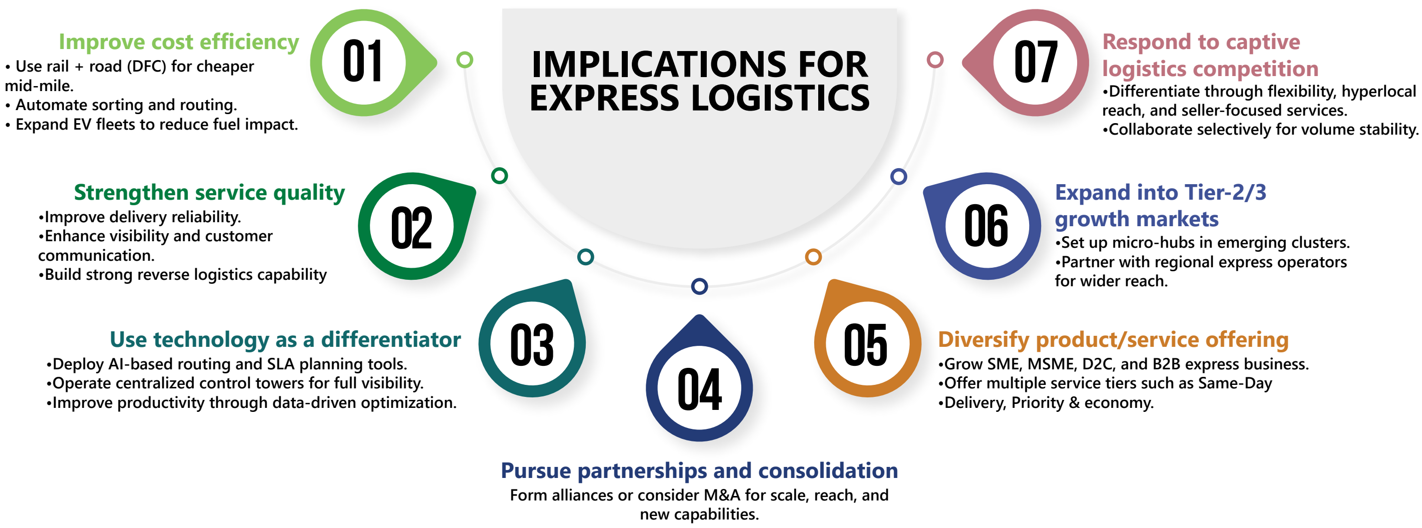
Porter's Framework





Structure of Express Industry in India:

India's express industry is presently valued at ~USD 9–10 billion# (FY25), with domestic express contributing ~USD 6.3–6.5 billion#(≈70% of value) and international express ~USD 2.5–2.7 billion (≈30%). Parcel volumes stood at approximately 8–9 billion^^ in FY24 and are forecast to reach 24–29 billion#-commerce growth and supported by network densification and recent industry consolidation

The Indian express logistics industry is highly fragmented, with nearly 1,000 active players operating across domestic and international markets. Despite this fragmentation, the sector is more organised than traditional transport owing to its heavy reliance on technology, automated processes, and stringent service-level commitments. In B2B express space 10 major organized players dominate the segment, collectively accounting for 55–58% of industry revenues, while next 4-5 players, who are having national presence at smaller level or an offering non-core in their portfolio commands 12%-15%# of this segment, remaining 28%–30%# is shared by a wide base of unorganized or small regional players. that specialize in niche regions / areas / routes, and customized client requirements. This structure reflects a balanced competitive landscape where large integrated operators provide scale, automation, and nationwide networks, while regional firms contribute agility, flexibility, and deep local expertise. In case of B2C express (e-com logistics) market is largely controlled by 3 captive arms of major market places and 4 non-

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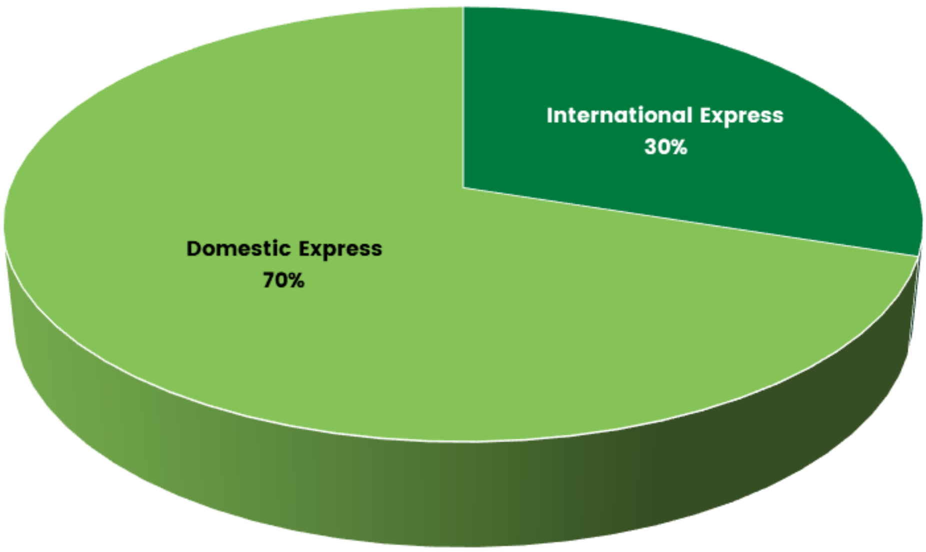
Express: Domestic Vs International

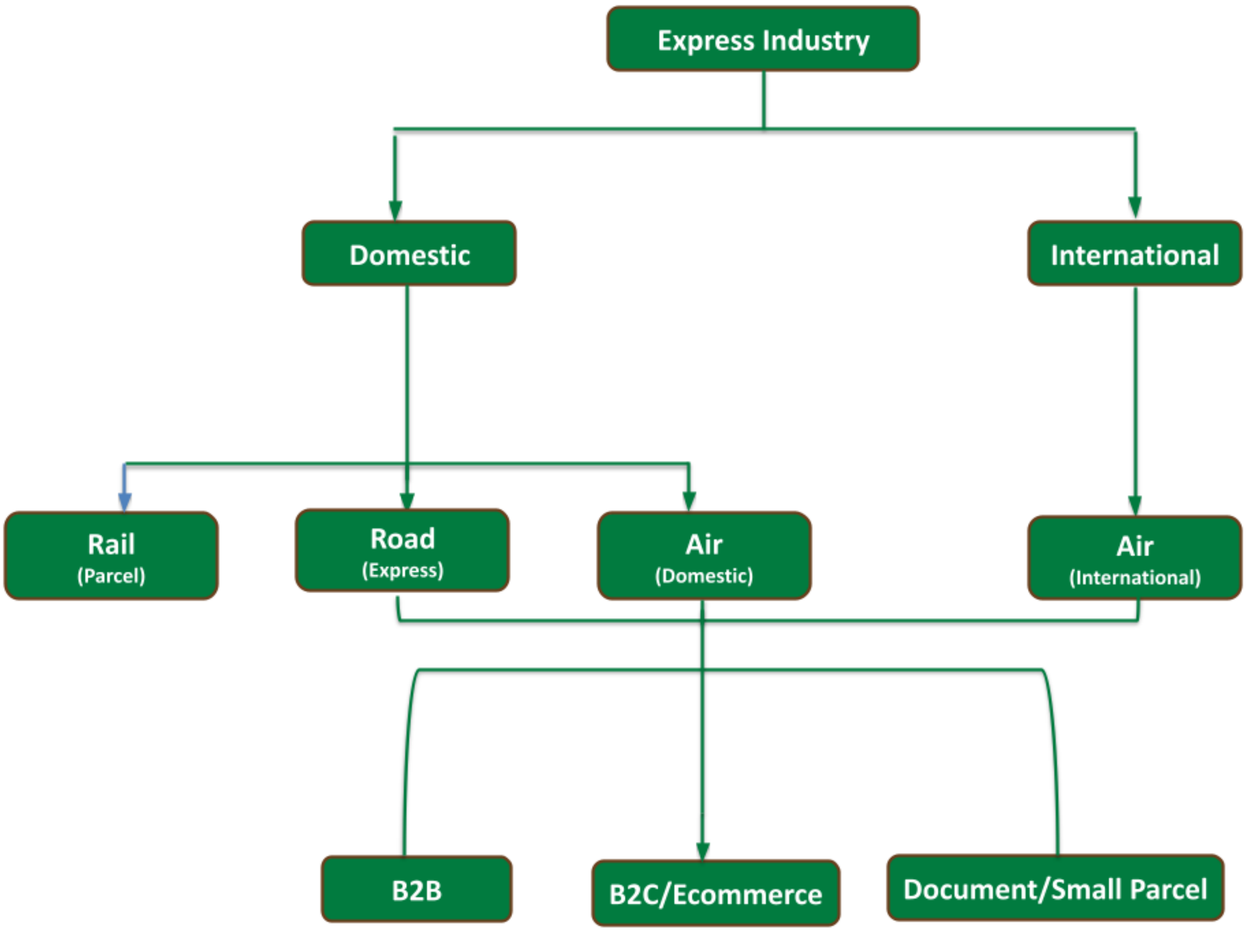


Source: Aviral Research & Analysis

captive service providers.

The Indian express logistics industry is a fast-evolving, high-velocity segment of the logistics ecosystem that is best understood across three dimensions: destination (Domestic vs International), mode (Surface — road & rail — vs Air) and customer/shipment type (B2B, B2C/e-commerce, Document/Small Parcel).

Domestic express dominates in volume and value, while international (cross-border) express—served almost entirely by air—remains smaller in volumes but higher in yield per shipment. Recent years have seen rapid structural change driven by e-commerce, quick-commerce, network densification and industry consolidation.



Evolution of Indian Express Logistics

India's express logistics industry has evolved from a state-led postal network into a digitally integrated, technology-driven logistics ecosystem that anchors the nation's trade and consumption growth. Beginning with India Post's Speed Post service in 1986, the sector matured through liberalization in the 1990s, the entry of private couriers, and the e-commerce revolution of the 2010s. Today, driven by automation, sustainability, and data intelligence, express logistics has become a strategic pillar of India's supply chain infrastructure — enabling time-definite, nationwide connectivity. This evolution reflects not just operational progress but a paradigm shift toward smart, inclusive, and sustainable logistics that aligns with India's vision of becoming a global logistics hub.

POSTAL FOUNDATION (1947–1980s)

- India Post connected trade and communication.
- Launch of Speed Post (1986) transformed document movement.
- Manual tracking and limited private competition.

PRIVATE COURIER EXPANSION (1990s–2000s)

- Liberalization enabled entry of private players like Blue Dart, DTDC.
- Air express and technology adoption improved reliability.
- Partnership with DHL expanded global reach.

E-COMMERCE REVOLUTION (2010–2020)

- Rise of Flipkart, Amazon, and Delhivery led to digital logistics.
- COD and reverse logistics became critical.
- Tech integration enabled next-day deliveries.

DIGITAL & SUSTAINABLE ERA (2020–2025)

- Emergence of AI, EV fleets, automation, and drones.
- Quick commerce (<1 hour delivery) reshaping consumer expectations.
- Sustainability drives innovation in express logistics.

The last and ongoing phase represents the industry's technological and environmental convergence. The post-pandemic period accelerated the adoption of automation, robotics, and digital visibility platforms, allowing companies to deliver with greater speed and precision. The express logistics landscape now includes electric vehicle fleets, drone trials, warehouse robotics, and smart fulfilment centers, signifying the transition toward data-driven, low-carbon logistics.

The emergence of quick commerce players such as Zepto, Blinkit, and Swiggy Instamart has redefined consumer expectations — from next-day to next-hour deliveries, setting a new industry benchmark. This phase reflects a qualitative leap: express logistics has evolved from being an operational service to a strategic pillar of India's economic infrastructure, directly contributing to the nation's GDP growth, employment generation, and sustainability objectives.

Evolving ecosystem of India's Express Parcels

India's express industry is expanding rapidly due to digital adoption, evolving consumer behaviour, and ongoing logistics infrastructure transformation. Digital penetration has been a major catalyst specially in B2C logistics. With internet access now reaching ~58% of the population and India offering some of the world's lowest mobile data costs, online shopping has become accessible across both urban and non-urban regions. Nearly 17% of Indians shop online, and this number is expected to grow at 7–9% CAGR, reaching 345–419# million digital shoppers by 2030. Government-led initiatives such as Digital India and India Stack have strengthened digital payments, authentication, and trust—further boosting e-commerce and parcel growth.

Urbanisation has intensified this shift. The top 50 cities, representing around 36% of India's population, have emerged as hubs for consumption and change in demand pattern. Demand is characterised by high order frequencies, short delivery windows, branded items etc. Where in purchases takes place from modern trade outlets, single brand stores, e-commerce & q-commerce platforms. This has pushed express players to invest in densified pickup–delivery networks, micro-fulfilment centres, automated sorting, AI-driven route optimisation, and zonal fulfilment capabilities.

Infrastructure reforms have further strengthened the ecosystem. Policies such as GST, FASTag, and the E-Way Bill, along with large-scale investments in Bharatmala highways, expressways, multimodal logistics parks, and freight corridors, have improved transit speeds, increased reliability, and reduced inefficiencies—enabling scalable express operations nationwide.

ESTABLISHED & LEGACY EXPRESS LEADERS

BLUE DART · DTDC · TCI EXPRESS · SAFEXPRESS · allcargo GATI · India Post

CONSOLIDATED & REORGANIZED PLAYERS (POST 2020–2025 TRANSFORMATIONS)

Shree Maruti · V-Xpress · Mahindra Logistics · Scorpion · DP WORLD

NEW-AGE ENTRANTS OFFERING B2B / B2C EXPRESS

DELHIVERY · amazon freight · SHADOWFAX · ekart · VALMO · XPRESSBEES

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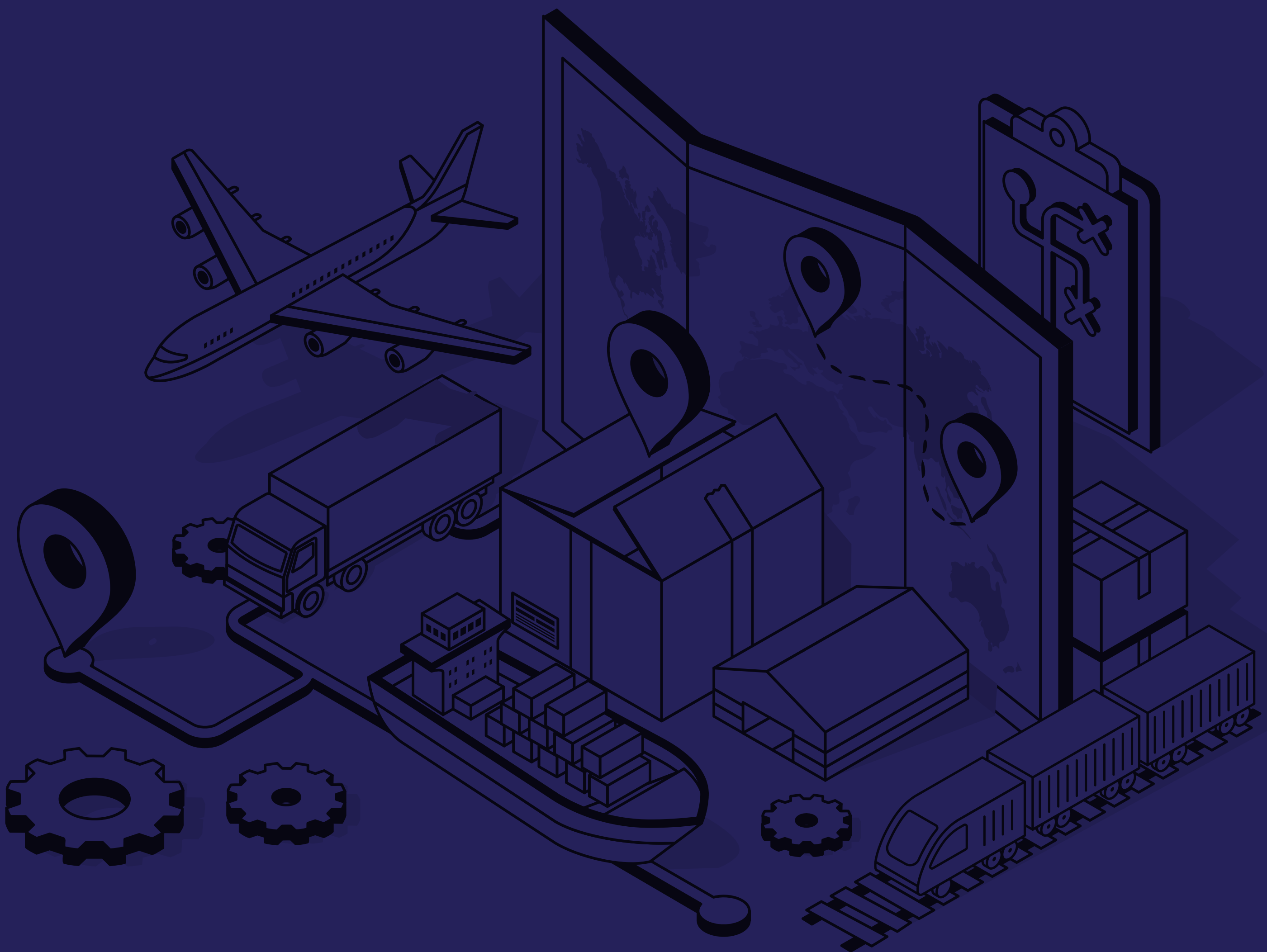
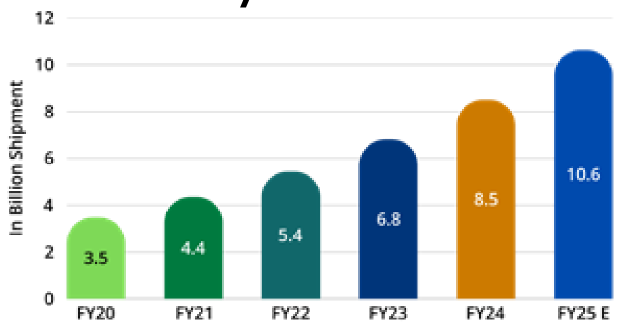
Domestic Express
LOGISTICS



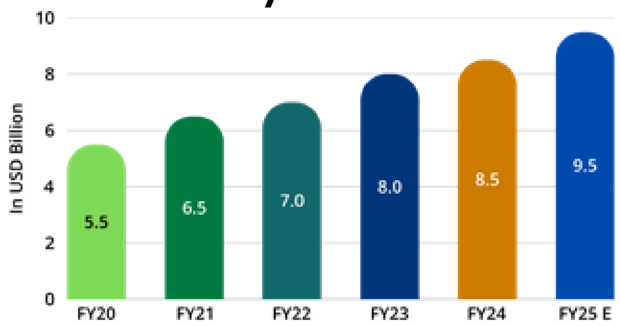
The Domestic Express segment forms the backbone of India's express logistics industry, accounting for nearly 70% of the total CEP market value. This segment focuses on time-bound movement of B2B parcels, e-commerce shipments, documents, and small-parcel freight across India. Although domestic express is multimodal, the operational backbone is surface transportation, driven by cost efficiency, network density, multimodal connectivity, and predictable transit performance.

Indian Domestic Express by Volume



Source: Aviral Research & Analysis

Indian Domestic Express by Value



Source: Aviral Research & Analysis

Express by surface mode contributes an estimated 75%–80%# share by value in overall domestic express logistics, supported by India's expanding national highway network, multimodal logistics parks, relay trucking models, and improved line-haul speeds. Air express, holding 18%–20% share, caters to high-value and time-sensitive categories such as electronics, pharmaceuticals, automotive spares, and premium cargo—offering next-day and two-day delivery on high-density metro and Tier I lanes. Rail express contributes a marginal less than 4% share, constrained by limited parcel train capacity, inadequate express-specific terminals, and inconsistent service reliability.

The domestic express market today serves three core customer segments:

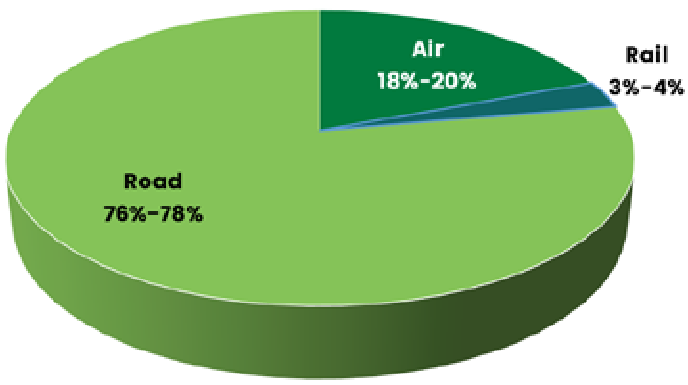
- **B2B industrial shipments** (automotive, electronics, consumer durables, manufacturing MSMEs)
- **B2C / e-commerce parcels** driven by large marketplaces and D2C brands
- **Documents and small parcels,** now representing a declining share due to digitalization

Over the past decade, the market has transitioned from a document-heavy, B2B-centric model into a parcel-led, e-commerce-driven ecosystem. India processed an estimated 8–9 billion domestic express shipments in FY24, and volumes are projected to rise sharply to 10–11 billion in FY25 and further to 24–29 billion parcels by FY30, making India one of the fastest-growing express markets globally.

• Modal Composition in Domestic Express Industry

India's express logistics industry has evolved into a multimodal ecosystem, but its backbone continues to be road-based surface express, supported by growing roles for air express and emerging contributions from rail express. Improvements in infrastructure, digital reforms, and capacity expansion across modes are reshaping the movement of express parcels across India. Based on industry estimates and Aviral Research, the modal contribution in FY25 is:

Domestic Express (CEP;B2B & B2C) By Value



Source: Aviral Research & Analysis

This distribution reflects the structural advantages, cost economics, and operational characteristics of each mode within India's rapidly evolving logistics network.

Surface transport forms the backbone of the Indian express logistics industry, accounting for ~76–78%# of domestic express (by value). Its dominance is driven by extensive network reach, strong cost efficiency, and the operational flexibility required for high-volume, time-bound deliveries across B2B, e-commerce, SME, and D2C segments.

India has built one of the world's most extensive road networks. The national highway network expanded from ~91,000 km in FY14 to ~145,000 km** in FY24, supported by large-scale investments under Bharatmala, Gati Shakti and state-level corridor programs. Rural connectivity has also strengthened, with rural road length crossing 730,000 km, enabling express operators to reach over 98% of villages with population above 500. This deep penetration has improved first-mile pickup, mid-mile consolidation and last-mile delivery across metro and non-metro markets.

Digitalisation has significantly improved the reliability and efficiency of surface express operations. FASTag now covers 96% of toll plazas, reducing queue times; e-way bill automation has streamlined transit documentation; and widespread use of GPS, telematics, and route-optimisation tools has enhanced visibility, fleet utilization, and on-time performance. With these changes,

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average freight speeds on national highways have increased to 45–50 kmph, nearly 80% higher than a decade ago, allowing express players to maintain predictable delivery windows across long-haul and regional networks.

Surface Express: Structural Advantages

1. Network Density and Reach

Road networks seamlessly integrate first-mile, mid-mile, and last-mile operations, enabling consistent service coverage across 95%+ of India's districts. The hub-and-spoke sortation model allows express operators to scale efficiently into small and medium-sized markets while maintaining service reliability and transit predictability.

2. Strong Cost Efficiency

Surface express is typically 4–6 times more cost-efficient than air express, making it the most economical option for high-volume domestic express distribution.

This cost advantage makes road transport the preferred mode for most domestic express shipments, particularly for e-commerce ground deliveries, FMCG/FMCD, apparel, auto components, industrial spares, SME parcels, and general B2B freight.

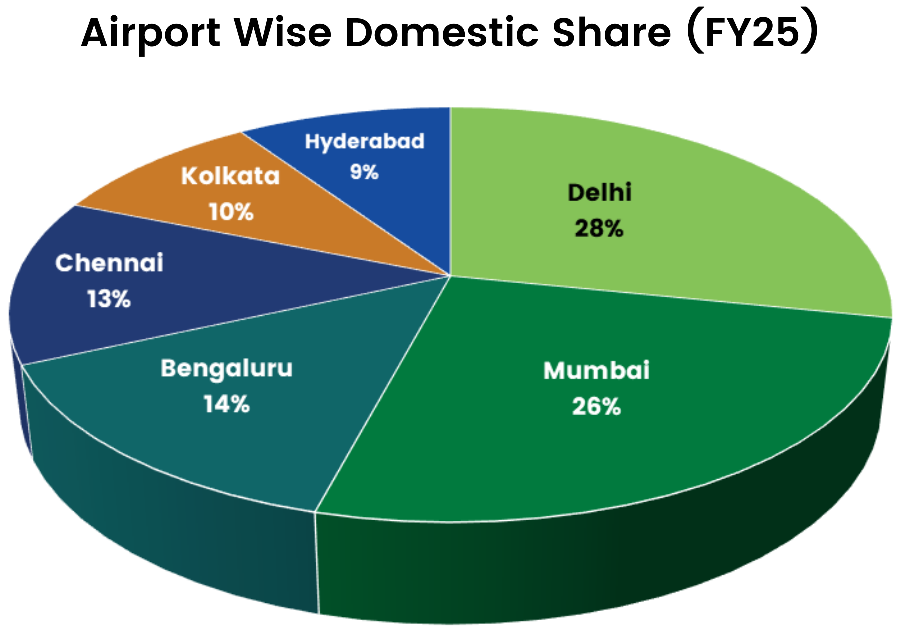
3. Operational Control and Flexibility

Road operations provide express players with greater control over routing, line-haul scheduling, delivery cycles, and reverse logistics, with minimal dependence on fixed asset availability or external transport schedules. This flexibility enables faster network optimization, better service customization, and improved responsiveness to demand fluctuations.

Air Express: Expanding Network, Rising Speed Demand, and Strong Cargo Growth

India's air express sector has expanded steadily, driven by fast-growing demand for speed-sensitive B2B and B2C shipments. Over the last decade, more than 80 new airports have been operationalised, with nearly 65–70% located in tier-II and tier-III regions. Regional air connectivity has grown at 8–9% CAGR under the UDAN Regional Connectivity Scheme (RCS), which now covers 887 routes, 88 airports, 13 heliports, and 2 water aerodromes. This expansion has significantly strengthened air access beyond metro hubs, enabling faster and more reliable movement of small-parcel express cargo across India's manufacturing and consumption centres.

Domestic air cargo volumes reached 1.39 million tonnes in FY25, marking 102% recovery over pre-pandemic levels. Despite the rapid expansion of regional connectivity, domestic air freight remains concentrated in a few high-capacity hubs.



Source: AAI, MOCA, Aviral Research & Analysis

Note: *AAI does not publish airport-wise domestic cargo data. FY25 values are modelled estimates based on AAI domestic cargo volumes and historical cargo-share pattern.*

Domestic air cargo remains heavily concentrated, with Delhi, Mumbai, Bengaluru, Chennai, Hyderabad and Kolkata handling ~75–78% of national domestic volumes. Delhi and Mumbai continue to anchor India's express-cargo network, supported by dense flight connectivity and significant belly capacity. Bengaluru, Hyderabad, Chennai and Kolkata form strong regional corridors catering to e-commerce, electronics, pharmaceuticals and high-value industrial shipments. Meanwhile, tier-II and tier-III airports have increased their share from ~18% a decade ago to nearly 22–25% in FY25, supported by UDAN routes and the rise of regional manufacturing clusters.

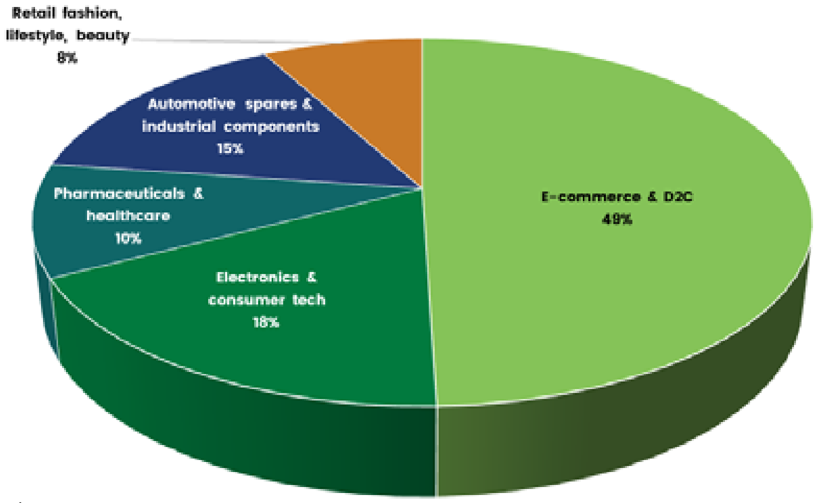
Overall, India's air express sector is characterised by concentrated network hubs, rapid regional expansion, rising belly and freighter capacity, and a consistently premium cost profile. Delhi and Mumbai continue to anchor the national express-cargo grid, while Bengaluru, Hyderabad, Chennai and Kolkata strengthen specialised corridors for e-commerce, electronics, pharma, and high-value industrial shipments.

Cargo capacity expansion by airlines is another major growth driver. Indian carriers added over 180 aircraft in 2024 alone, with combined long-term orders exceeding 1,400 narrow-body and 150–180 wide-body aircraft for the next two decades. Belly-hold capacity continues to dominate India's air cargo ecosystem, while dedicated freighters contribute lesser share. Freighter operators include Blue Dart Aviation, Amazon Air, IndiGo CarGo, SpiceXpress, Pradhaan Air, and emerging regional cargo carriers. Industry forecasts, including Boeing's long-term outlook, suggest India will require ~80 dedicated freighters by 2040 to keep pace with premium express demand.

Categories Driving Domestic Air Express Demand

According to the 2025 NCAER–DPIIT Logistics Cost Assessment, air transport remains the most expensive logistics mode in India, with an average cost of ₹72 per tonne-km for domestic air freight. Wide cost gap of air with other modes, explains why air express is used selectively—primarily for high-value, low-weight, or urgent shipments such as electronics, pharmaceuticals, fashion, auto components, D2C parcels, and time-critical B2B consignments.

Categories Driving Domestic Air Express Demand



Source: Aviral Research & Analysis

E-commerce and D2C shipments anchor nearly half of domestic air-express demand, driven by same-day and next-day delivery expectations. Electronics and consumer technology contribute significantly due to high value-density and rapid product cycles. Pharmaceuticals and healthcare rely on air freight for temperature-controlled, time-critical consignments, while automotive components depend on premium air transport to prevent line-stop risks. Lifestyle, beauty and high-margin retail categories add incremental volume during seasonal peaks.

Rail Express: Emerging Niche Mode with Growing Infrastructure Support

Rail-based express parcel logistics in India currently accounts for an estimated 2–3 per cent of the total express logistics market by value. This modal distribution highlights the distinctive nature of the express logistics industry, where speed, service reliability, and delivery certainty take precedence over cost efficiency. While rail remains a marginal contributor today, its gradual movement from pilot applications to selective commercial deployment on high-density corridors signals an emerging role within the express ecosystem.

Although rail currently holds only a 2–3%# share of the express logistics market by value, even a gradual increase to 5–7%# over the next five to seven years would represent a significant structural shift in India's express logistics architecture. In freight segment, Rail's primary advantage lies in its superior cost structure. Industry cost assessments indicate that rail logistics averages ₹2 per tonne-km, significantly lower than road (₹3.5–4.5 per tonne-km). This makes rail particularly effective for heavy, bulky, or consolidated express shipments, including appliances, FMCG in larger lots, industrial components and bulk e-commerce replenishment loads. Data from NCEAR indicates that the average cost of parcel movement per tonne per km is INR 12.40. Which is significantly higher than surface express. Rail parcel for express logistics also faces inherent constraints that limit its share in core express logistics:

- Limited door-to-door capability without road integration
- Multiple handling points at railheads
- Schedule rigidity compared to road flexibility
- Weaker integration with on-demand, cut-off–driven e-commerce flows

In order to overcome the constraints and better serve the express and parcel segment, Indian Railways has initiated tailored solutions:

- Parcel Cargo Express Trains (PCETs): Time-tabled long-haul parcel trains
- Rail-Post Gati Shakti Service: A dedicated express cargo product jointly operated with India Post
- High-Speed Parcel Services: Development of faster parcel rakes

Strategic Importance of Rail for Express Logistics

Historically, railways were not considered suitable for express logistics due to limitations in terminal handling, speed, and service predictability. However, Railway parcels offer an intermediate solution for express industry.

Wherein product characteristics lies between air and road network. Rail offers a strong structural cost advantage. On long-haul intercity routes, rail-based line-haul transportation is typically 25–40% cheaper than road transport and 60–70% cheaper than air cargo. Since long-haul transportation accounts for nearly 35–40% of total express logistics costs on corridors exceeding 500 km, even partial modal substitution can significantly improve overall cost efficiency.

Rail Post Gati Shakti Express Cargo Service

Launched in FY23 as a joint initiative between Indian Railways and India Post, the Rail Post Gati Shakti Express Cargo Service marks the first structured attempt to position rail as an express parcel carrier. The service is currently being piloted on four corridors:

- Delhi – Kolkata
- Bengaluru – Guwahati
- Surat – Muzaffarpur
- Hyderabad – Hazrat Nizamuddin

With plans to expand to 15 corridors in the first phase, this service introduces core express logistics features such as:

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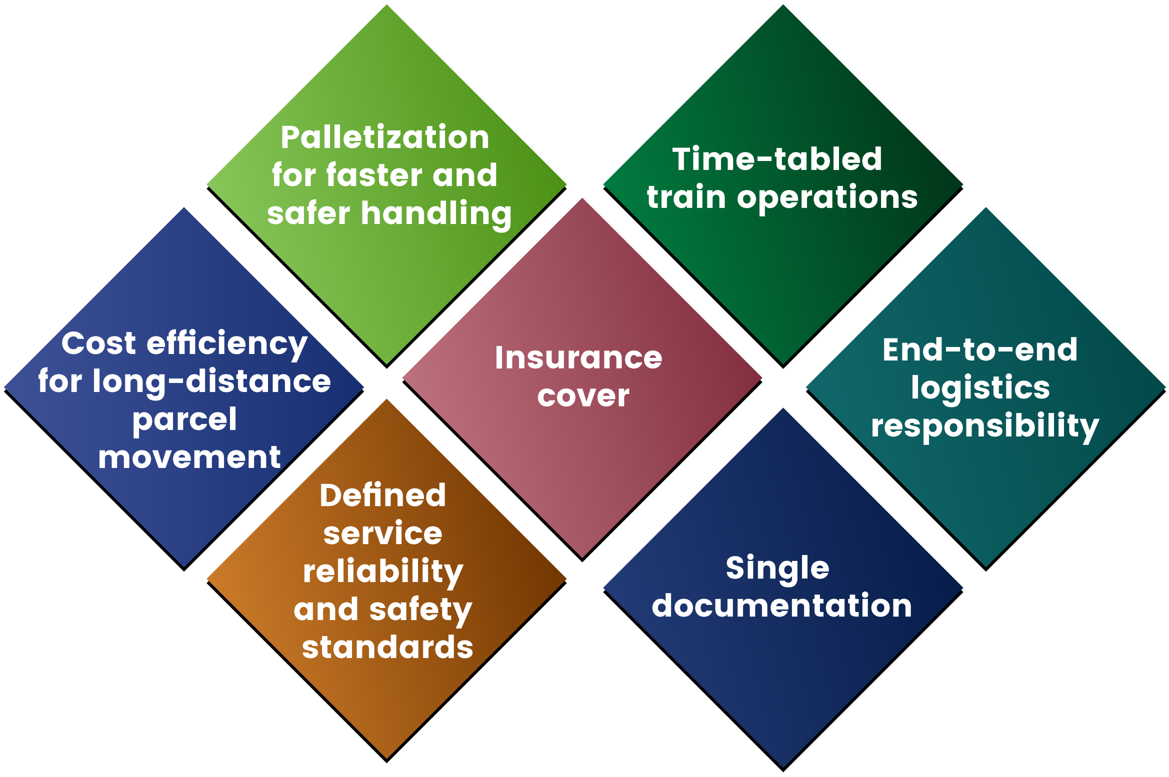
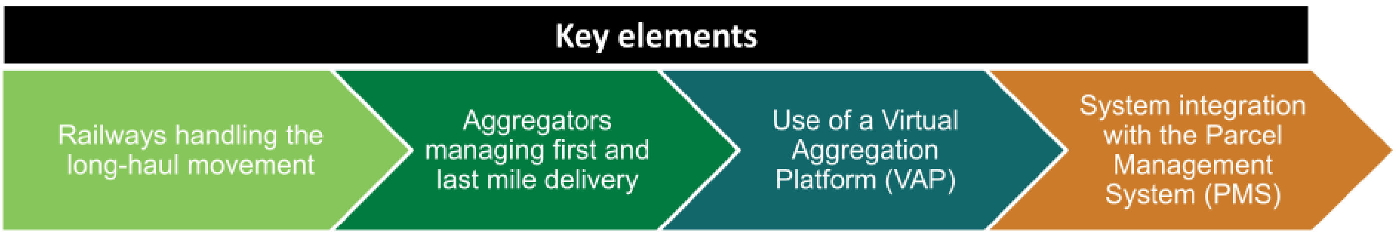


This initiative shifts rail from a station-based parcel service to a structured express logistics offering.

JPPRCS Policy and Aggregator Integration

The Joint Parcel Product – Rapid Cargo Services (JPPRCS) policy introduced in 2024 integrates private express service providers into the railway parcel ecosystem.



This framework enables digital booking, billing, documentation, and end-to-end tracking, making rail operationally compatible with SLA-driven express logistics networks.

Modernisation initiatives such as the development of 100 PM Gati Shakti Multi-Modal Cargo Terminals, station redevelopment programmes, and proposals for Vande Bharat Parcel or Vande Cargo Trains are expected to significantly enhance the speed, safety, and reliability of parcel handling on rail. These developments are critical for achieving the express industry's benchmark terminal turnaround times of 30–60 minutes per rake and for supporting high-velocity parcel movement.

From a strategic standpoint, rail is not positioned to replace road or air in express logistics. Instead, it is emerging as a complementary mode, best suited for long-distance. The optimal operating model is a multimodal structure in which road manages first-mile and last-mile delivery, rail handles the intercity trunk movement, and digital platforms integrate the entire journey under a unified service-level framework.

• Customer segmentation in Indian Express Logistics Industry

India's express logistics market has expanded rapidly over the past decade, shaped by both industrial growth and rising digital consumption. What was once a B2B-centric ecosystem has evolved into a multi-layered network catering to diverse customer needs across speed, shipment size, value characteristics, and last-mile expectations. Broadly, the market is segmented into four customer-driven categories:

A. B2B (Surface/Air)
B. B2C
C. C2C

Each segment plays a distinct role in shaping infrastructure, service offerings, technology adoption, and operational design across the express value chain.

The Indian B2B express market continues to be dominated by surface-based transportation, which handles a substantial majority of shipment movement due to its cost advantage, network reach, and suitability for bulk and non-urgent commercial freight. Although precise modal splits for
B2B alone are not officially reported, market behavior strongly suggests even higher dependence on road transport in B2B, as enterprises generally prioritize cost optimization over speed. Air express remains crucial for pharmaceuticals, electronics, and high-value engineering components, but surface continues to be the operational backbone of B2B express.

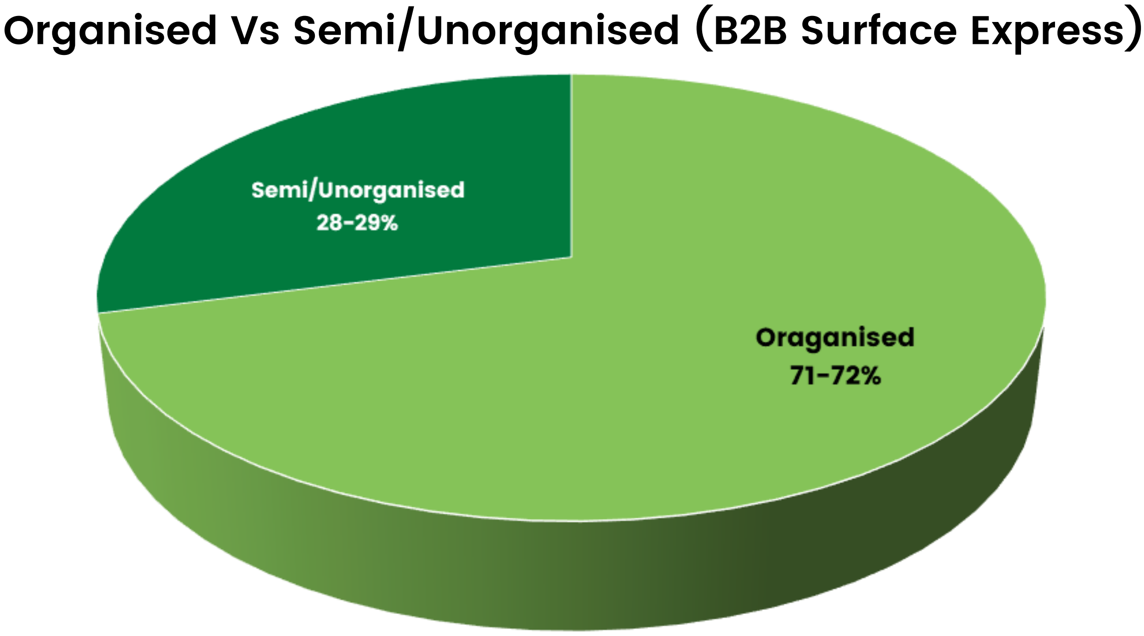
These trends also point toward gradual modal substitution, where improved road transit times and reliability are shifting some demand away from air towards premium surface express options.

1) Surface B2B Express

Surface B2B remains the largest revenue-generating and volume-dominant pillar of the Indian express logistics sector, forming the backbone of industrial and wholesale distribution. Based on industry estimates and market assessments, this segment has reached to approximately USD 2.6–2.8 billion# in FY2024–25 with CAGR of approx. 12% in last 5 years. GST-driven network consolidation, improving multimodal connectivity, national highway expansion, and the growing preference for organized logistics partners among manufacturers and distributors created tailwind for this growth. Sectoral assessments indicate that B2B surface express contributes over 35% of the total domestic CEP (Courier, Express & Parcel) industry's revenue.

Surface B2B predominantly caters to structured, contract-based cargo movement for industries such as automotive components, FMCG and consumer durables, non-cold-chain pharmaceuticals, engineering goods, electronics distribution, and apparel/retail replenishment. These customers value predictable line-haul schedules, operational reliability, and cost-effectiveness, making surface express their preferred mode for medium-to-heavy parcel shipments typically ranging from 10 kg to 500+ kg. Transit times generally fall between 2 and 6 days across major industrial corridors, with premium surface products reducing this window to 24–96 hours.

The segment has progressively shifted towards greater formalization, with organised express players now estimated to handle 71–72% of surface B2B express—up from ~69% earlier in 2019-20. Investments in automated hubs, GPS-integrated fleets, digital POD systems, AI-enabled route optimisation, and multi-hub relays have significantly raised service consistency. As manufacturing clusters expand into tier-II and tier-III cities, and as the government emphasizes domestic value chain integration under Make in India and PLI schemes, Surface B2B is expected to remain the stabilising core of the express industry—anchoring high-tonnage, predictable demand that underwrites network viability for express logistics providers.



Source: Aviral Research & Analysis

2) Air B2B Express

Air B2B represents the premium, high-value, time-sensitive layer of India's express logistics ecosystem. Although considerably smaller in volume compared to surface express, this segment commands the highest yield per kilogram due to the urgency and criticality of the goods it handles.

Air express shipments are indispensable for sectors where delays directly translate into production stoppages, inventory losses, or compromised product integrity. These include pharmaceuticals, vaccines and diagnostic kits, electronics and IT hardware, aviation spares, high-value engineering components, fashion and luxury goods, and perishable categories requiring fast movement. According to data from the Airport Authority of India, India's domestic air cargo throughput stands at around 1.3–1.4 million tonnes annually. This volume comprises of B2C and B2B volumes. B2B air cargo is served by two different models of door to door and port to port. Port to port is largely a service for line haul connection, wherein shipper or any consolidator does not avail full service from any integrated express service provider. So, such volumes make a part of air cargo ecosystem, but can not be considered as part of air B2B express. Most of the shipment profile in port-to-port segment comprises of cargo and bulk, while door to door air cargo comprises of small parcels and cargo.

Door-to-door Air B2B express market is estimated at roughly USD 0.6 billion^^ in FY2024–25, reflecting an approximate 8–9% CAGR based on industry estimates. The air express ecosystem operates through a combination of dedicated freighters, led by players such as Blue Dart Aviation, and belly cargo capacity on commercial passenger flights, which is extensively utilized by integrators including Delhivery, TCI Express, Safexpress, Allcargo Gati, Om logistics and SD Cargo. Air express typically enables 1–2-day delivery across the whole tier 1 & tier 2 city's origin-destination (OD) pairs in India. Its core strength lies in delivering consistent transit speeds, reduced handling risk, faster inventory replenishment, and high service reliability, making it essential for Just-in-Time (JIT) and Just-in-Sequence (JIS) supply chains.

As India accelerates its ambitions in electronics manufacturing, semiconductor ecosystems, medical devices, and precision engineering, and as the domestic aviation network expands with new regional airports and cargo infrastructure, the role of Air B2B is expected to grow significantly. It is increasingly emerging as a strategic enabler of high-value, time-critical, and resilient supply chains, strengthening India's position in advanced manufacturing and global trade integration.

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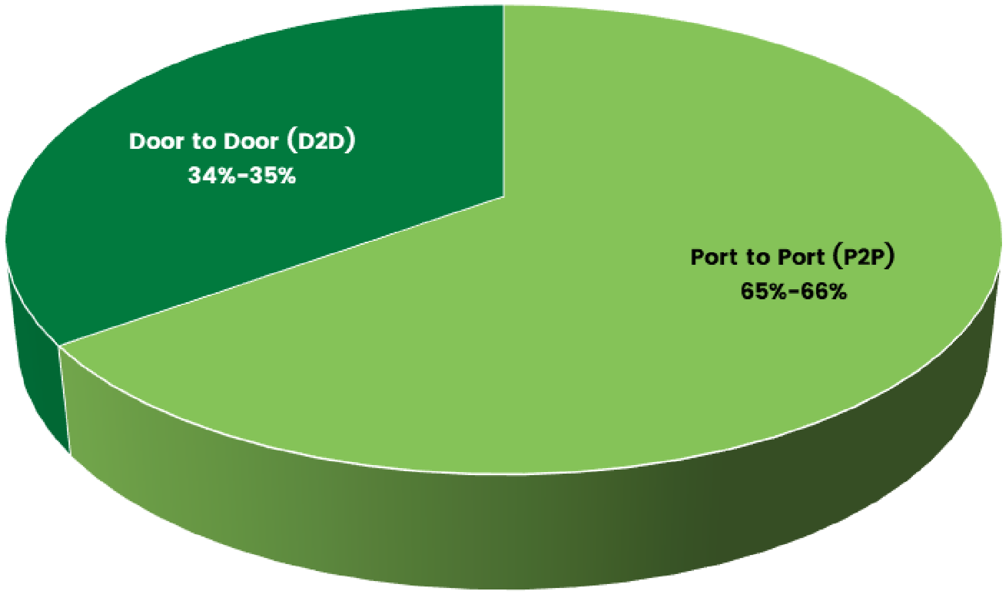
P2P Vs D2D (B2B Express)



Source: Aviral Research & Analysis

3) B2C Express (E-Commerce, D2C, Omnichannel Retail)

E-commerce already accounts for majority of the total express parcel market, translating into roughly 5.0–5.5 billion# shipments in FY2025, making it the single largest growth driver for the industry. The rapid rise of D2C brands, social commerce, omnichannel retailing, and quick-commerce platforms is further intensifying parcel density, especially in urban and semi-urban markets. At the same time, traditional courier services are becoming a smaller relative component of the express ecosystem. As per IBEF report, they account for about 17% of total volumes in FY2025 (around 2 billion parcels) and are expected to grow at a more moderate pace of around 7% CAGR till FY2030, as the market increasingly shifts toward e-commerce-led and hyperlocal shipments.

Within this broader landscape, the B2C express segment has emerged as the most operationally demanding and innovation-driven part of the industry. It is estimated to represent just over 50–52% of total express parcel volumes and roughly USD 3.5–4.0 billion^^ in market value in FY2025, based on industry market sizing and shipment-economics analysis.

Parcel volumes in the B2C segment have expanded sharply over the last few years, rising from around 1–1.2 billion# shipments in FY2019 to roughly 5 – 5.5 billion# shipments in FY2025, reflecting deeper online penetration, widespread smartphone adoption, and increasing use of digital payments across India.

Service expectations in B2C express are increasingly stringent, with next-day, same-day, and sub-6-hour delivery windows becoming standard in large cities. Reverse logistics has become a core operational capability, especially in fashion, electronics, and lifestyle categories, where RTO rates typically range between 12–18%. Cash-on-Delivery continues to remain structurally important, accounting for roughly 40–45% of shipments nationwide, particularly in non-metro markets.

To meet these evolving requirements, express logistics providers are accelerating investments in automated sortation centres, micro-fulfilment hubs, dense last-mile networks, route-optimisation systems, real-time tracking platforms, and AI-driven capacity planning. As e-commerce penetration deepens beyond metro cities and quick-commerce models scale rapidly, B2C express is expected to remain the primary catalyst of innovation, infrastructure investment, and technology adoption in India's express logistics industry through the remainder of this decade.

4) C2C Express & Documents

C2C express has emerged as a distinct and increasingly important segment within India's broader express logistics ecosystem, driven by peer-to-peer commerce, re-commerce (second-hand/resale shipments), and the proliferation of app-based small-parcel delivery platforms. This segment is shaped by evolving urban consumer behavior, where individuals use on-demand logistics services to send personal items, documents, gifts, household articles, resale products, and even small home-business consignments.

Based on market estimates and industry analysis, the documents and courier parcels (excluding intracity) is valued at roughly USD 0.6–0.7 billion# in FY2024–25. In this segment document has witness continuous decline in last one and half decade. Decline rate of documents was much faster till 2015. In value terms document segment registered approx. 6%^^ per annum degrowth between 2015 and 2020, but post 2020 segment has registered approx. 5%-6% CAGR primarily on account of pricing. Speed post of India Post has also registered CAGR of 7%# between FY 20 and FY 25.

Hard segmentation for C2C transaction is quite difficult due to its overlap with hyperlocal and intracity segments. Industry research indicates that intra-city logistics overall — encompassing hyperlocal commerce, quick commerce, and C2C deliveries — represents a multi-billion-dollar opportunity, reflecting the scale of consumption-led urban mobility and demand for fast, flexible delivery services.

Importantly, the C2C express segment has redefined speed and delivery flexibility expectations in the Indian market, helping establish instant and ultra-fast logistics norms (including sub-same-day and next day deliveries) that are now influencing service expectations and network designs across both B2C and some B2B express models. This consumer-driven innovation — driven by digital app platforms, dense urban last-mile networks, and real-time tracking capabilities — continues to shape the future of express logistics in India.

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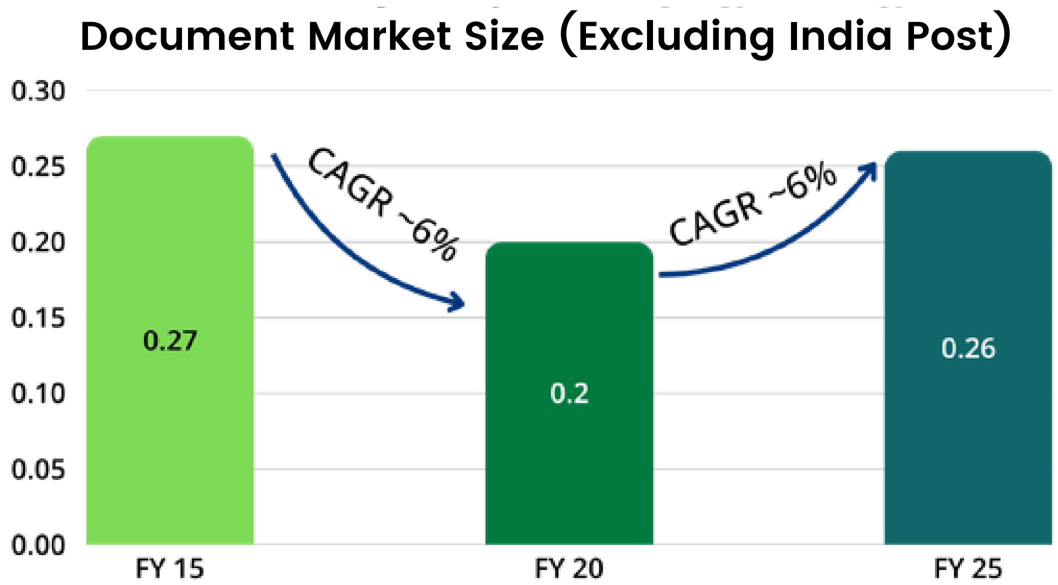


Value in Bn $ (Constant $1= INR 82)
Source: Aviral Research & Analysis

Contribution of Customer Segments to India's Express Logistics Industry

Customer Segment	Primary Users / Industries	Nature of Shipments	Key Drivers	Distinct Characteristics
B2C (Business-to-Consumer)	E-commerce platforms, D2C brands, retail, BFSI	Small parcels, multi-category consumer goods, returns, COD parcels	Digital commerce expansion, quick-commerce, D2C growth, rising Tier II/III demand	Highly tech-driven; automation-heavy; dense last-mile networks; high return rates (12–18%); COD dominant (40–45%); fastest delivery expectations
B2B (Business-to-Business)	Automotive, FMCG/FMCD, pharma, engineering goods, textiles, electronics distribution	Mid-weight shipments, production-linked parts, replenishment stock	Industrial growth, GST-led network consolidation, JIT/JIS manufacturing, reliability needs	Predictable demand; high share of surface express; contract-led movement; strong utilisation; organised players handle ~70–75% volume; stable tonnage flows
C2C (Consumer-to-Consumer)	Individuals, students, small sellers, re-commerce users, social-commerce sellers	Personal parcels, documents, gifts, resale products, lightweight household shipments	Growth of re-commerce, app-based logistics platforms, gig workforce, hyperlocal behaviour, instant delivery culture	Highly app-driven and fragmented; overlaps with intracity and hyperlocal logistics; sets the fastest delivery benchmarks (minutes to hours within city, next-day intercity); strong metro concentration but expanding in Tier-II cities; documents structurally declining, value supported mainly by pricing

• Economic and Operational Dynamics of the B2B Express

As India's manufacturing, distribution and MSME ecosystems expand across core industrial corridors, B2B express logistics has become a critical enabler of reliable, time-bound cargo movement. This segment differs significantly from consumer parcel networks, as it handles heavier shipments, manages complex pickup and delivery geographies, and operates on structured SLAs. B2B express networks must deliver consistency across 24–96 hours lanes, maintain high utilization of surface linehaul capacity and ensure predictable service quality across Tier-1 to Tier-3 industrial hubs. The foundation of competitiveness in B2B express lies in disciplined pricing, precise cost-to-serve control and deep network connectivity.

Geographical profile: Transit time is one of the key differentiators of express logistics along with handling quality and visibility. For a short haul shipping of B2B shipment, dependence on express logistics is significantly low. For intracity deliveries / intra state deliveries, small and unorganized players provide efficient services along with lower cost, volumes of express logistics increase with increase of distance. Share of interzone volume in express logistics remain more than 2/3rd of total volume handled. Research by Aviral indicates that average distance of express shipments hovers between 1100 -1200 km.

Being a diverse country with a non-uniform spread of industrial clusters and population distribution share of each zone varies in booking and delivery of B2B shipments. On one hand booking / origin of shipment volume is more dependent on manufacturing / industrial activities, deliveries are more dependent on population and spending profiles. West being most industrialized zone of country contributes highest share in booking volumes, while East is on another end.

East, in spite of low contributor in booking volumes has a significant large share in delivery due to consumption factor. North zone contributes highest share in delivery volumes followed by west and South at almost same level.

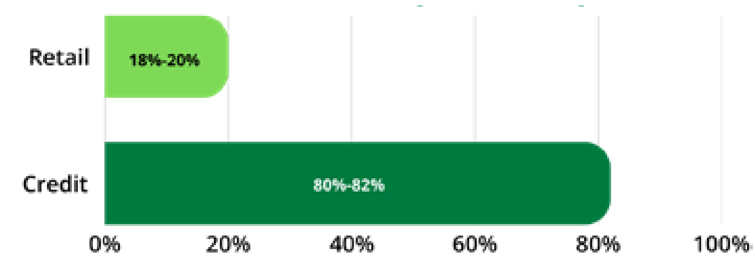
Credit Vs Retail Mix: Healthy B2B express networks balance retail shipments (cash / To Pay, higher yield, lower volume) with credit enterprise shipments (stable volume, contracted pricing). Retail business support yield and profitability of business, while TBB contracts build predictable daily volume required to stabilize linehaul schedules and hub flows.

Over period of time and practical challenges, even some portion of retail business emerged on short term credit (i.e: 3 days to 7 days). In terms of value, contribution of credit business is more than 4 times of retail business. In case of B2C shipping these shares become largely irrelevant as market is largely concentrated towards three large market places.

Revenue Quality: B2B express delivers higher revenue per CN due to its heavier chargeable weights, structured enterprise pricing and stricter service-level requirements. Normally express industry measures revenue quality in terms of per kg realization in B2B and per parcel realization in B2C / documents. Yield must always be analyzed at the lane level, as variations in distance, weight mix, customer segment and serviceability significantly influence actual profitability.

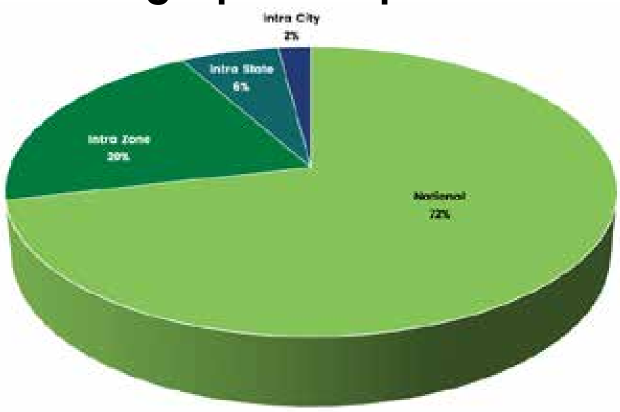
Serviceable Network & Geography Reach: B2B express is largely revolves around hub and spoke operating model. In order to optimally cover length and breadth of country by surface approximately 18 - 25 hubs serve the purpose, out of which 6-10

Retail Vs Credit (in value)



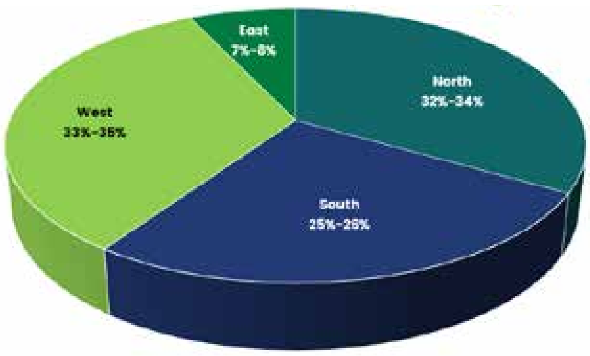
Source: Aviral Research & Analysis

Geographical spread



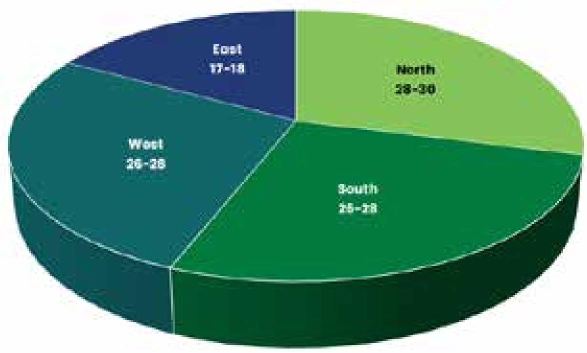
Source: Aviral Research & Analysis

Zonal Contribution in Express Booking



Source: Aviral Research & Analysis

Zonal Contribution in Express Delivery



Source: Aviral Research & Analysis

can be major hubs and rest as relatively smaller hubs. Exact count of consolidation hub also depends of volumes and trade lanes. These hubs serve to branches spread around hubs, which act as pickup and delivery (PUD) point.

A national in express logistics required branch count in range of 400 – 700 depending on volumes. Wider penetration of branches defines the serviceability of network. Normally a PUD serves a radius of 20-25 Km / city limit as direct serviceable location and any area beyond that limit is considered as Outline Delivery Area (ODA). Express logistics defines its coverage in terms of direct serviceable and ODA.

For an B2B express service provider, 13%-15% volume come for ODA delivery and rest for serviceable location. As per India Post released data, India has approx. 19300 pin codes. On an average national player of B2B express covers 4500 – 5000 pin codes directly (matching with India Post) and rest through ODA network. These numbers vary drastically for a B2C / e-commerce logistics service provider.

Shipment Profile: B2B express consignments typically ranges across industry verticals. Out of which Auto, Apparel, Electronics and Pharma/Healthcare are top contributing industry vertical with almost 60% cumulative volumes. Some of the verticals which witnessed significant improvement of share in last one decade are FMCG and e-com. Earlier FMCG was a very small segment, but evolution of many new-age packaged food or cosmetics brand has pulled the segment share. In case of e-com vertical volume flows from stock transfers, vendor to Fulfillment Center (FC) / Distribution Center (DC) or return from FC/DC with certain.

Per consignment weight in B2B surface, B2B air and B2C varies significantly. On one end surface express weight / CN ranges between 120 Kg to 150 Kg. While it hovers between 15 Kg to 25 Kg in case of air cargo. In high weight category of surface every consignment contains multiple parcels. Our research indicates that on an average each consignment has around 8-10 parcels.

Parcel Profile: Although express industry profile consists of small parcels and brown boxes in developed market, scenario is little different in Indian express logistics. B2B express cargo packages consists of multiple sizes, weight categories and packaging.

Box/Carton:	67-72%
Pallets:	3-4%
Bags/Bundle:	9-10%
Others/liquid/roll/gdd:	15-17%

Routes & Hubs: Hub-and-spoke design determines consolidation quality, transit speed and network resilience. Well-engineered hubs target <4–6 hours of dwell time, and reductions of 2–4 hours have measurable effects on next-day delivery performance across high-density corridors. Automated sortation, barcode sequencing, floor-flow engineering and systematic dock assignment improve throughput accuracy and reduce manual error, enabling scalable operations during peak demand periods.

• Unit Economics

• **Linehaul Cost Structure:** Linehaul represents 30% – 35% of total B2B express operating cost. Improved expressway infrastructure has shortened transit times on corridors such as Delhi–Mumbai, Chennai–Bangalore and Hyderabad–Pune, enabling fixed daily departures and reducing dwell. Utilization remains the primary cost driver: every percentage point improvement in linehaul utilization of network directly impacts the profitability.

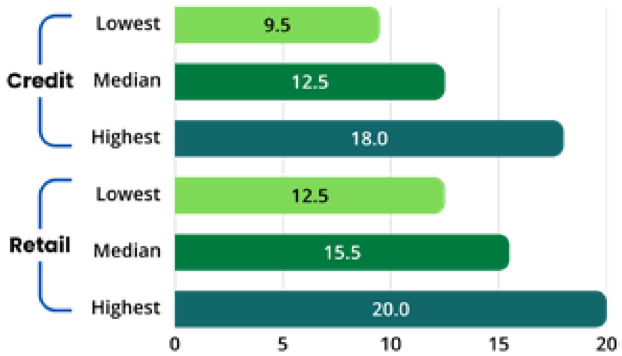
• **Feeder Cost Structure:** Feeder routes contribute 14% - 17% of operating cost. Feeder networks are essential for connecting Tier-2/3 industrial belts to regional hubs. Feeder efficiencies improve through multi-client consolidation and cluster-based pickup planning. Poorly utilised feeders increase per-CN cost, making precise frequency and routing design essential for emerging manufacturing markets.

• **First-Mile & Last-Mile:** First-mile and last-mile operations are the most cost-intensive components of B2B express. Public analyses indicates that first and last-mile contributes ~20%. Industrial clusters often require time-specific pickups, dock-entry coordination and multiple handling steps, affecting productivity. Network-wide adoption of geocoding, digital address mapping and automated routing systems has demonstrated productivity gains.

• **Out-of-Delivery-Area:** ODA shipments introduce extended transit time and higher cost-to-serve, often costing 2–3× more than regular serviceable locations. National networks generally experience 10–12% ODA share, though this may rise in remote industrial zones. Even a 5–10 percentage-point increase in ODA exposure can materially compress lane-level margins, making ODA reduction a central network strategy through micro-hubs, route expansion and selective partner deployment.

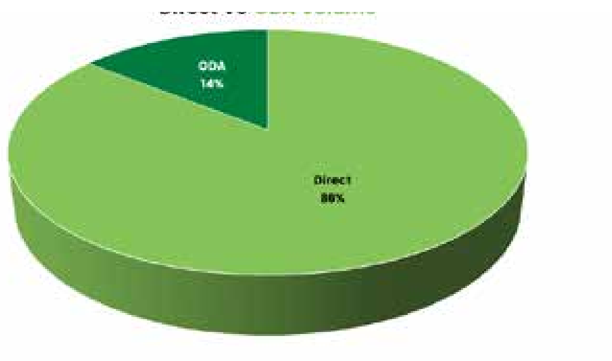
Personnel & Administrative: B2B express logistics requires skilled and semi-skilled teams for operations planning documentation, billing, SLA monitoring and customer support. These functions typically represent 6–12% of total operating cost. Digitisation of invoices, EDI integrations, automated reconciliation and workflow management reduce administrative overheads and improve billing accuracy and payment cycles.

Surface B2B realisation / Kg in INR: Retail & Credit



Source: Aviral Research & Analysis

Direct Vs ODA Volume



Source: Aviral Research & Analysis

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Paradigm Shift:
INDIAN EXPRESS LOGISTICS INDUSTRY

India's express logistics industry has evolved from a fragmented courier network to a technology-driven, integrated logistics ecosystem, serving as a critical enabler of trade, manufacturing, and e-commerce growth. Valued at USD 9–10 billion in FY2025, the express logistics segment is growing at a compound annual growth rate (CAGR) of around 13–15%, supported by rising digital commerce, MSME exports, and supply chain formalization. Over the last decade, the industry has witnessed a transformative shift in scale, speed, and sophistication, redefining how goods move, data flows, and customers engage with delivery networks. The paradigm shift is evident across five key dimensions — from speed to smart, from service to system — marking the transition of express logistics from a transactional function to a strategic supply chain pillar.

Shift Dimension	Earlier Model	New Paradigm	Impact
From Delivery Service → Integrated Partner	Basic courier delivery	End-to-end logistics (warehousing, fulfilment, last-mile)	Enhanced visibility & supply chain control
Manual → Digital Automation	Paper-based dispatches	AI, IoT, data analytics, robotic sortation	20–25% process efficiency gains
From Urban Reach → Hyperlocal Access	Metro-focused	90%+ PIN code coverage, rural & Tier-III access	Nationwide last-mile inclusion
Speed-Centric → Sustainable & Smart	Speed as only metric	EV fleets, route optimization, green warehouses	20–25% EV fleet adoption by 2030
From Competition → Collaboration	Standalone players	Shared capacity & digital ecosystem (Ekart, Valmo, ATS)	Network synergy & scalability

Key Trends in Indian Express Logistics Industry

India's express logistics industry is undergoing a structural transformation, driven by rapid growth in e-commerce, evolving consumer expectations, and expanding digital infrastructure. The sector is shifting from a traditional courier-led model to a technology-driven, time-sensitive logistics ecosystem. Express logistics is no longer defined only by speed, but by reliability, network depth, service predictability, and cost efficiency. These structural shifts are reshaping operating models, investment priorities, and competitive dynamics across the industry.

1. Rising Importance of B2B Express and Time-Critical Shipments

Beyond consumer e-commerce, B2B express logistics is gaining importance, driven by sectors such as manufacturing, electronics, pharmaceuticals, and automotive spares. These shipments demand higher reliability, controlled handling, and strict service-level adherence. As a result, B2B express is emerging as a relatively higher-margin and strategically important segment for logistics providers.

2. Shift from Speed-Centric to Reliability-Led Delivery Models

While speed remains important, customer expectations have evolved towards predictability, transparency, and service consistency. Enterprises now prioritise assured delivery timelines, accurate tracking, and lower failure rates over merely faster transit. As a result, express players are strengthening line-haul planning, hub synchronization, and last-mile discipline to improve on-time performance and reduce re-attempts, returns, and customer escalations.

3. E-commerce and Quick Commerce as Structural Growth Drivers

E-commerce remains the single largest growth engine for India's express logistics sector. The rapid expansion of e-commerce platforms and D2C brands has significantly increased shipment volumes, order frequency, and delivery density. The evolution of quick commerce has added a new dimension to intracity express delivery by creating demand for ultra-fast, hyperlocal fulfillment. Unlike traditional courier demand, this growth is structurally embedded, driven by rising digital adoption, urban consumption, and changing buying behaviour. Express operators are increasingly optimising their networks for high-frequency, small-ticket shipments with faster delivery commitments, making e-commerce and quick commerce the backbone of volume growth in the express logistics ecosystem.

4. Rising Focus on Cost Efficiency and Yield Management

With intensifying competition and rising input costs—particularly fuel, manpower, and last-mile operations—express companies are focusing on improving yield quality rather than only chasing volume growth. Measures such as volumetric pricing discipline, lane-level profitability analysis, dynamic pricing, and network rationalization are being increasingly adopted to protect margins and improve return on invested capital.

5. Technology as the Core Operating Backbone

Technology has moved from being an efficiency enabler to a core strategic pillar of express logistics operations. Advanced sortation systems, real-time visibility tools, AI-based route optimization, and data-driven capacity planning are becoming essential for scale. These technologies enable higher throughput, better asset utilization, and cost optimization, allowing operators to grow volumes without proportionate increases in manpower or infrastructure.

6. Expansion Beyond Metros into Tier-2 and Tier-3 Markets

Growth in express volumes is increasingly coming from Tier-2, Tier-3, and emerging consumption clusters. Rising internet penetration, improved road connectivity, and growing regional entrepreneurship are accelerating demand beyond metropolitan markets. As a result, network reach, local hub density, and first-mile penetration in smaller towns are becoming key competitive differentiators for express service providers.

7. Industry Consolidation and Strategic Partnerships

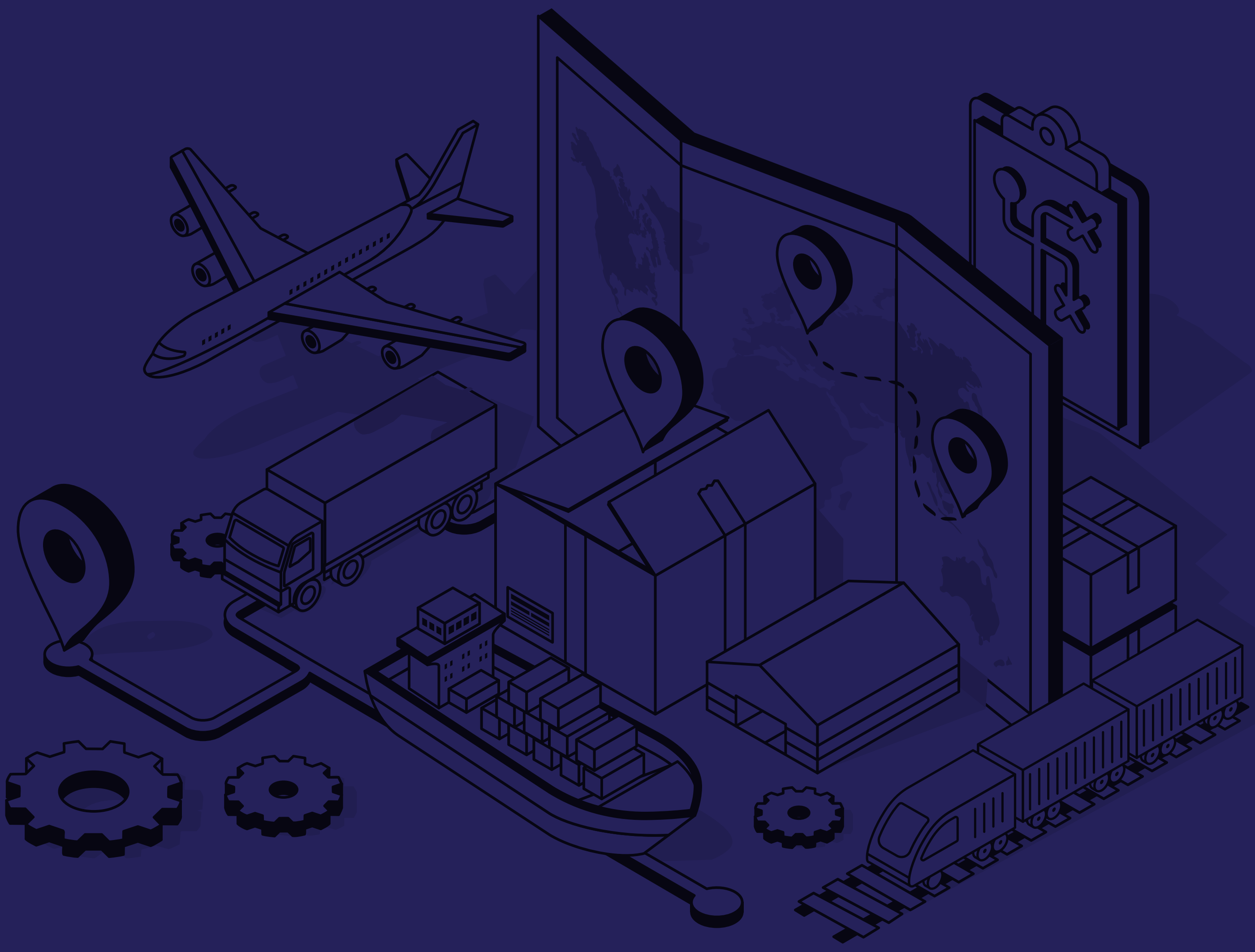
The express logistics sector is witnessing increasing consolidation through mergers, acquisitions, and strategic partnerships. Scale has become critical to absorb fixed costs, invest in automation, and maintain nationwide service coverage. Collaborations between global logistics firms and regional players are strengthening first-mile and last-mile capabilities while accelerating market penetration in underserved geographies.

8. Sustainability and the Gradual Shift Towards Green Logistics

Sustainability is emerging as a long-term strategic priority rather than an immediate cost lever. Express companies are gradually adopting electric vehicles, alternative fuels, and route optimization technologies, particularly for urban last-mile deliveries. While large-scale adoption remains constrained by infrastructure and cost challenges, environmental performance is becoming an important factor in fleet planning, brand positioning, and customer engagement.

Technology Transformation

IN INDIA'S EXPRESS LOGISTICS INDUSTRY



Technology has become the central operating backbone of India's express logistics ecosystem. As shipment volumes surge due to e-commerce, D2C brands, and time-sensitive deliveries, express logistics players are increasingly relying on digital infrastructure to drive speed, accuracy, scalability, and cost efficiency. What was once a support function has now evolved into a strategic differentiator.

The Indian express logistics sector is witnessing a clear shift from manual, asset-heavy operations toward data-driven, automated, and platform-led models. Technology adoption today spans the entire value chain — from pickup scheduling and line-haul planning to last-mile delivery, returns management, and customer experience management.

Key Technology Themes Shaping Express Logistics

1. End-to-End Visibility & Control Towers

Leading express players are deploying centralized control towers that provide real-time visibility across pickup, hub processing, line haul, and last-mile delivery. These systems use live data feeds to flag delays, monitor SLA adherence, and proactively manage exceptions, enabling faster corrective actions and reduced delivery failures.

2. API-Led Integration with Shippers and Marketplaces

Modern express networks are deeply integrated with shipper systems (ERP, OMS, WMS) through APIs. This allows automated order creation, label generation, real-time tracking updates, billing reconciliation, and smoother reverse logistics flows — reducing manual effort and improving data accuracy.

3. Automation & Mechanization at Hubs

To manage high parcel volumes, companies are investing in automated sortation systems, conveyors, dimensioning scanners, and barcode-based routing. These systems improve throughput, reduce dependency on manual labour, and help meet tight cut-off timelines critical for next-day and same-day delivery commitments.

4. Data Analytics, AI & Predictive Planning

Advanced analytics and AI are increasingly used for demand forecasting, lane optimisation, capacity planning, and manpower allocation. Predictive models help anticipate festive surges, sale-day spikes, and regional demand volatility — improving cost control and service reliability.

5. Last-Mile Optimisation Technologies

Last-mile delivery, the most cost-intensive leg, is being optimised through route planning algorithms, geo-fencing, digital proof of delivery (POD), and rider performance analytics. These tools improve delivery density, reduce fuel costs, and increase first-attempt delivery success.

6. Digital Returns & Reverse Logistics Management

Returns management has become a strategic capability, especially in e-commerce-heavy flows. Technology-enabled reverse logistics systems help manage pickup scheduling, quality checks, reintegration into inventory, and faster closure of refunds or exchanges.

7. Compliance, Security & Data Governance

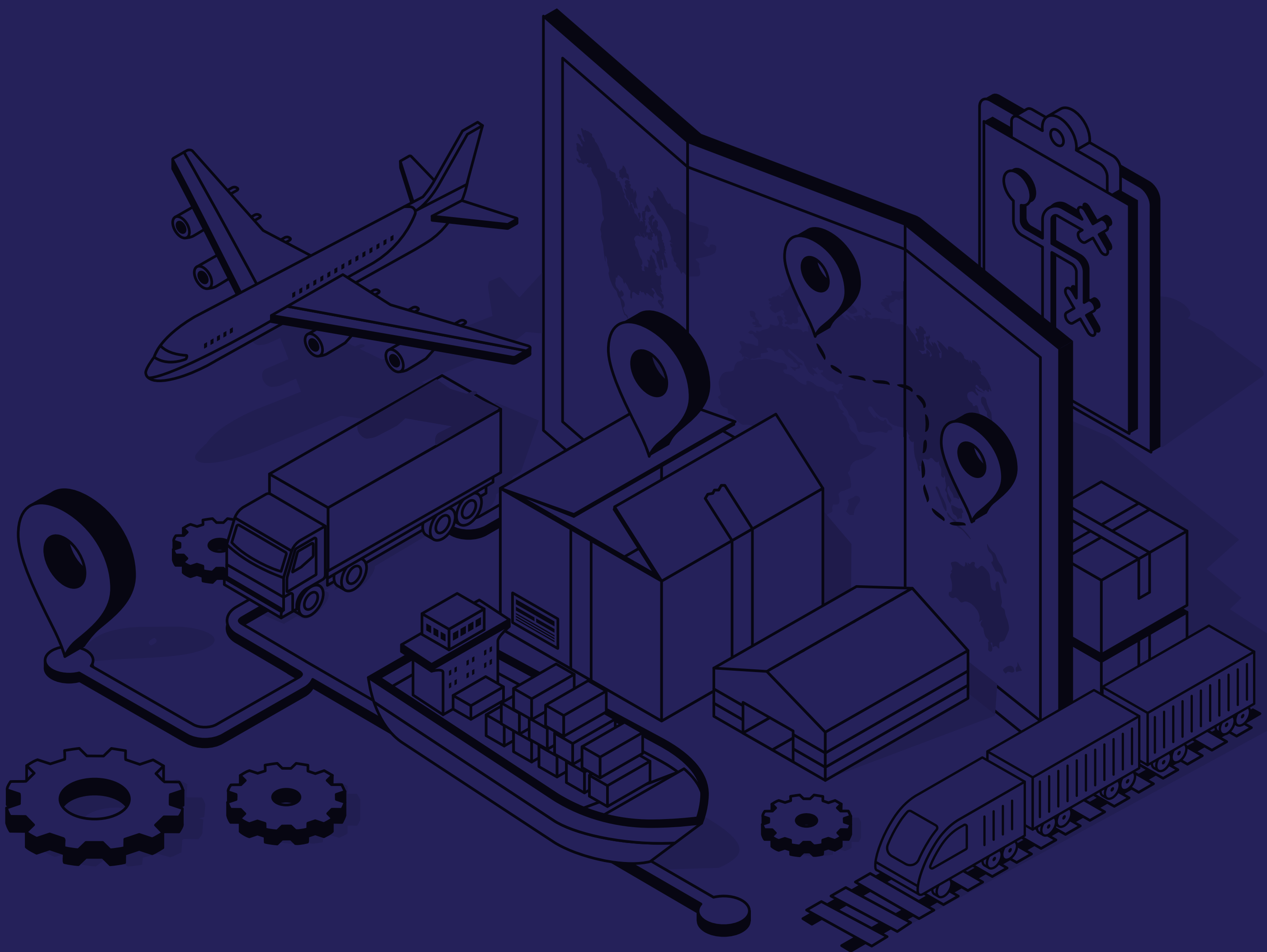
With increasing digitisation, express companies are strengthening cybersecurity, access controls, and data governance frameworks. Secure handling of customer data, transaction records, and payment information is now a core operational requirement, not just an IT function.

8. Integration with National Digital Logistics Platforms

Government-backed digital initiatives such as ULIP (Unified Logistics Interface Platform) and NLP (National Logistics Policy) frameworks are pushing the industry toward standardized data exchange, transparency, and ecosystem-wide efficiency.

Technology Area	What It Does	Operational Impact	Business Value / Strategic Benefit
Control Tower Systems	Provides real-time, centralized visibility across the entire logistics network	Enables live tracking, delay alerts, exception handling, and SLA monitoring	Improves service reliability, faster issue resolution, stronger customer trust
API Integrations	Enables seamless data exchange between shipper, carrier, marketplace, and ERP systems	Automates order creation, tracking, invoicing, and reconciliation	Reduces manual effort, improves speed, and enables scalable operations
Automated Sortation Systems	Uses conveyors, scanners, and sorters for parcel handling	Increases processing speed and reduces human error at hubs	Higher throughput, consistent service quality, lower unit handling cost
AI & Predictive Analytics	Uses historical and real-time data to forecast demand and capacity	Predicts peak volumes, manpower needs, and network bottlenecks	Better planning accuracy, lower operational risk, improved SLA adherence
Route Optimisation Tools	Designs optimal delivery routes using traffic, distance, and order density	Reduces fuel consumption and delivery time	Lower cost per shipment and improved last-mile efficiency
Digital POD & e-Payments	Captures proof of delivery and manages COD digitally	Faster reconciliation, reduced disputes, improved cash flow	Stronger financial control and customer confidence
Returns Management Systems	Automates pickup, inspection, and reintegration of returned goods	Shorter RTO cycle and improved reverse logistics visibility	Lower losses and faster inventory recovery
IoT & Telematics	Tracks vehicle location, temperature, and asset health in real time	Enables cold-chain monitoring and fleet performance tracking	Reduced spoilage, better asset utilization
Cybersecurity & Data Governance	Protects operational and customer data	Prevents breaches, ensures regulatory compliance	Business continuity and customer trust
Data Lake & BI Dashboards	Centralized data repository for analytics and reporting	Real-time dashboards for management decisions	Faster insights, performance benchmarking, and strategic planning

GST 2.0 - Implications
FOR INDIA'S EXPRESS LOGISTICS INDUSTRY



The introduction of GST 2.0 in September 2025 represents a significant structural shift in India's indirect tax framework, which has impacted express logistics sector in a positive way. While the reform does not materially change logistics tax rates, it reshapes operating dynamics by influencing demand behaviour and compliance mechanisms. The impact is therefore structural rather than transactional, with long-term implications for how express logistics networks are designed and managed.

1. Demand Impact

GST 2.0 has supported greater stability in consumer pricing across key consumption categories such as FMCG, FMCD, Automobiles and daily essentials. This stability has translated into higher order frequency and faster inventory rotation, directly benefiting express logistics operators.

2. Pricing and Margin Dynamics

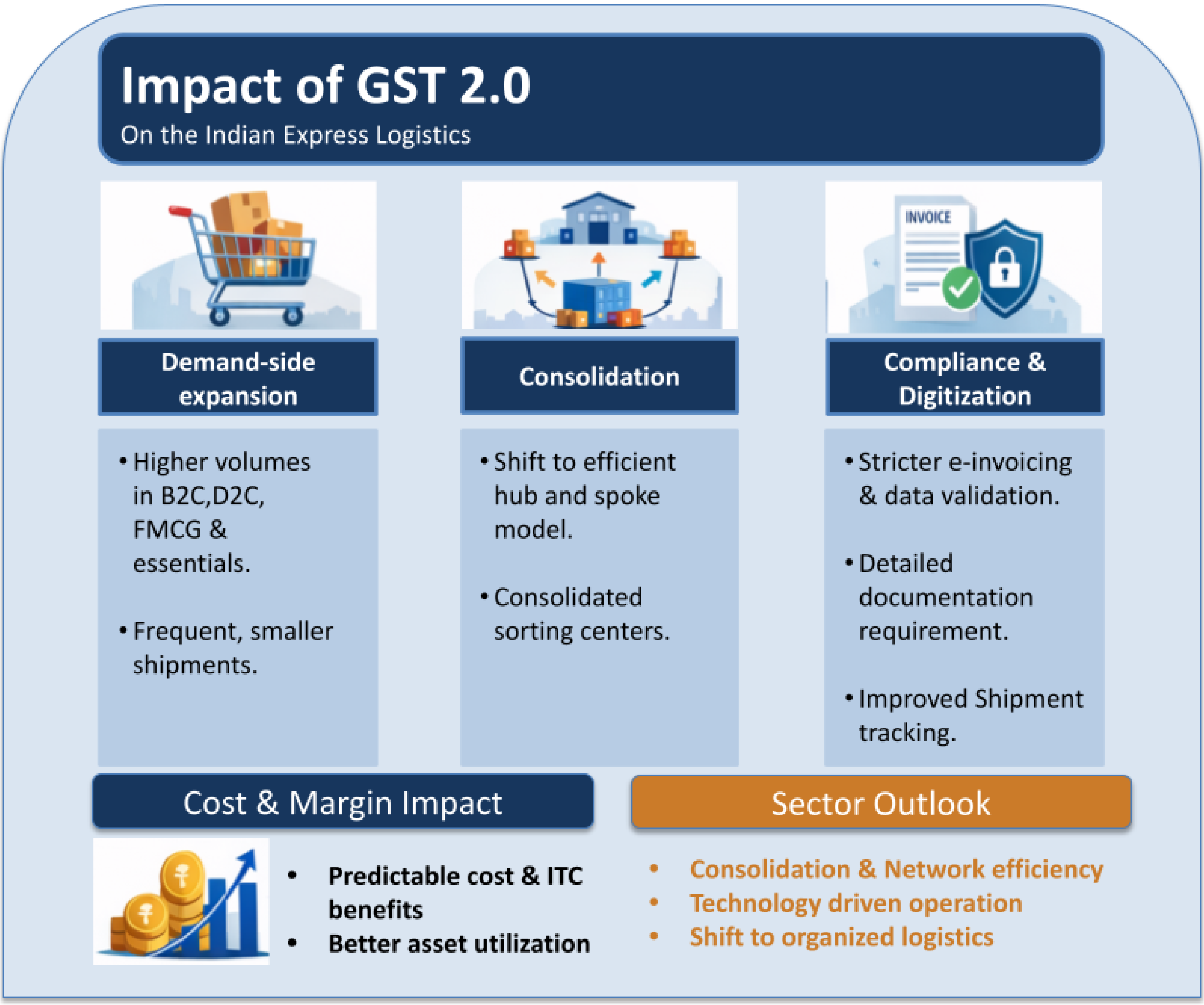
GST 2.0 has not introduced direct freight rate reductions; however, it has indirectly influenced pricing dynamics through improved demand consistency and reduced volatility. With fewer abrupt tax-driven price changes, express operators benefit from more predictable shipment volumes and smoother capacity planning.

3. Compliance, and Operational Discipline

A key outcome of GST 2.0 is the strengthening of compliance and digital enforcement across the logistics ecosystem. Enhanced requirements around e-invoicing, system validation, and data accuracy have increased the importance of clean, integrated IT systems. It also reduces documentation-related delays, improves visibility, and lowers exception handling over time. The net effect is improved reliability and predictability across the delivery chain.

4. Network Design and Structural Shifts

GST 2.0 reinforces the ongoing shift toward network rationalisation and hub-and-spoke optimisation. With reduced emphasis on tax-driven warehouse placement, operators are consolidating infrastructure around high-throughput hubs supported by efficient linehaul corridors. This enables better asset utilisation, faster transit times, and improved service consistency.
Larger, organised express players are better positioned to capitalise on this shift due to stronger technology platforms, scale advantages, and process maturity. Smaller and less formal operators, meanwhile, face increasing pressure to upgrade systems or integrate with larger networks.



Cross Border
EXPRESS LOGISTICS

The International (Cross-Border) Express segment is valued at USD 2.5–2.7 billion in FY25, contributing the remaining ~30%** of India's express logistics market. Its share has steadily increased from ~23%** in FY17 as India's global trade participation and cross-border e-commerce exports continue to expand. Cross-border express is an air-only movement, driven by strict delivery timelines, security requirements, customs protocols, and the need for predictable transit performance.

The international express segment handled around 19.5 million shipments weighing approximately 1,50,000+ tones in FY24, registering an average growth rate of 18% between FY21-FY24. Growth in this segment is being fuelled by the increased global appetite for Made-in-India products, including handicrafts, ethnic wear, home furnishings, auto components and other manufactured goods.

This segment serves four major customer groups: export–import B2B shipments, cross-border e-commerce parcels, MSME exporters, and global document flows. While international express volumes remain smaller than domestic volumes, the yield per shipment is significantly higher due to premium service levels, air freight costs, and value-added customs handling.

Growth in international express is supported by:

- The rapid rise of cross-border e-commerce and global marketplace participation,
- Increasing digitalization of export documentation and logistics workflows,
- Supportive bilateral and free trade agreements (FTAs),
- Improvements in customs automation, express terminals, and cargo capacity at Indian airports.

As India deepens economic and trade ties with key export destinations—the U.S., Europe, U.K., Middle East, and Australia—international express services are becoming increasingly critical for export-oriented MSMEs, D2C brands, electronics, pharmaceuticals, textiles, and engineering goods. Upgrades in cargo terminals, faster clearance systems, digitized documentation, and better air-cargo connectivity are enhancing service quality and reliability. With rising global demand for Indian products and the rapid acceleration of cross-border online commerce, the international express segment is positioned to remain a strategic growth driver within India's express logistics industry.

- Global Integrators: DHL, FedEx, UPS, Aramex – dominate high-value global express flows.
- Domestic Players with Growing Cross-Border Presence: Blue Dart, Delhivery, DTDC, India Post International.
- Partnership Models: Indian operators frequently collaborate with global express companies for first-mile pickup, consolidation, and last-mile delivery abroad.

Export shipments continue to dominate India's international express volumes. In FY24, exports accounted for nearly 79% of total express consignments, reflecting the growing participation of Indian businesses in global online marketplaces and niche consumer categories. Export volumes have increased significantly—from about 7.3 million shipments in FY21 to around 15.5 million shipments in FY24—indicating a clear move from document-based traffic to product-led parcel movement. Demand is largely driven by categories such as apparel, lifestyle goods, wellness products, handicrafts, and small-batch manufactured items, which rely on express services for quick and predictable delivery to international customers.

Key Trade Corridors

The strongest express trade lanes include:

- **United States** – the largest outbound market for Indian parcels, led by e-commerce and diaspora demand.
- **United Kingdom and Europe** – consistent demand for apparel, wellness products, and specialty goods.
- **Middle East** – balanced two-way movement for consumer and industrial cargo.
- **Australia and Southeast Asia** – emerging hubs for cross-border online retail.

Tailwind of Policy and Infrastructure in cross border express:

Recent policy measures and infrastructure development have strengthened the express ecosystem:

Formal classification of express logistics within trade frameworks.

Establishment of Express Cargo Export Hubs (ECEHs)

Strengthened channels for small e-commerce exporters via postal systems

Streamlined procedures for simplified returns

Capacity expansion at airports and air freight stations

***India Shipping news, Aviral Research & Analysis*

These initiatives aim to reduce delays, enhance processing speed, and support India's small-parcel export competitiveness.

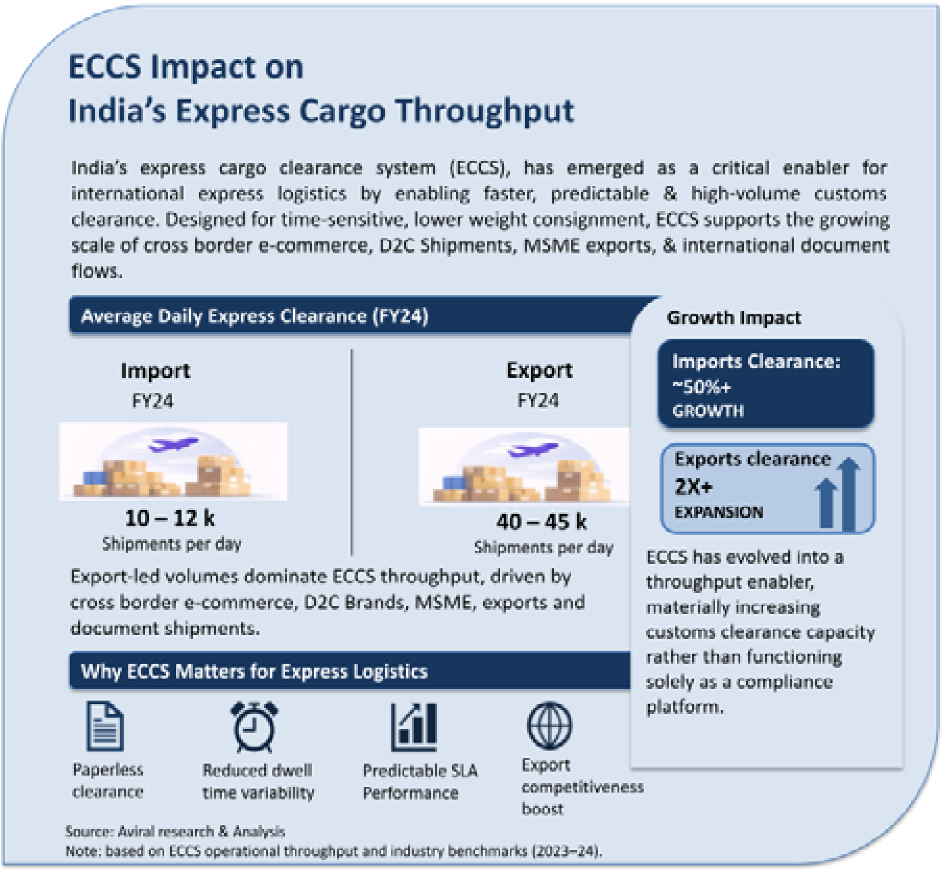
Despite this progress, challenges remain. High logistics cost per kilogram, limited clarity on international return shipments, and peak-season congestion at major metro airports continue to impact service performance. Enhancing infrastructure capacity, standardizing cross-border processes, and expanding express coverage beyond metro gateways will be important for sustaining growth. Overall, India's cross-border express logistics market is transitioning toward a more mature, parcel-focused structure. As participation from MSMEs and online sellers increases and infrastructure continues to improve, the express segment is expected to play a stronger role in supporting India's global trade footprint.

Role of Digitalization in cross border

Digital adoption has contributed significantly in improving the performance of cross-border express services. Many improvements particularly support MSMEs by reducing administrative complexity and ensuring predictable turnaround times. Some of key enablers include:

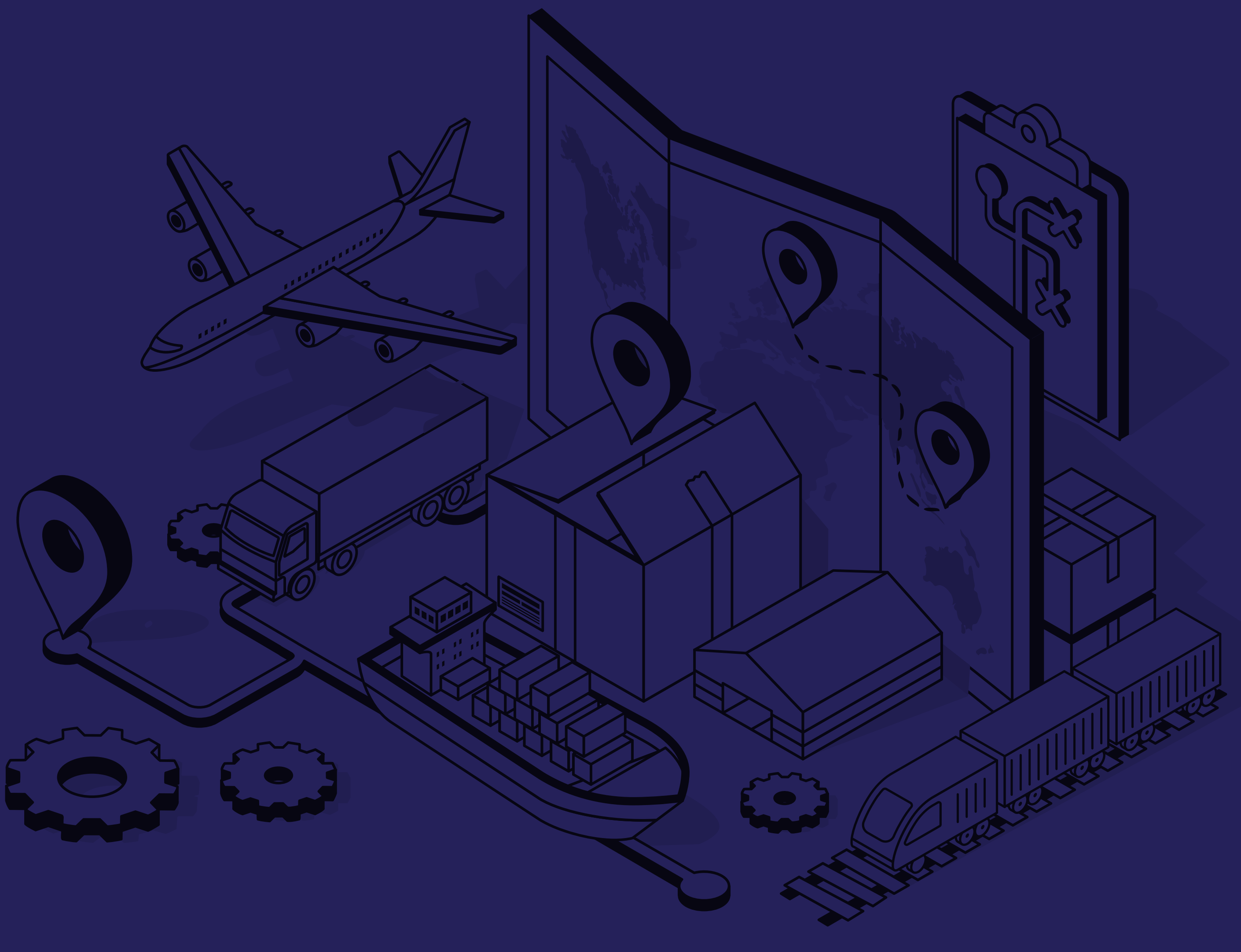
- Automated customs processing under ECCS
- API-based data exchange between shippers and express operators
- Real-time visibility tools and automated documentation support
- Digital pre-clearance workflows for faster shipment release.

The implementation of the Express Cargo Clearance System (ECCS) has streamlined customs clearance processes at Indian airports and materially improved the performance of the international express cargo sector. Clearance predictability, transparency, and processing efficiency have strengthened since ECCS adoption, supporting the growth of cross-border e-commerce, D2C shipments, MSME exports, and international document flows.



However, faster customs clearance through ECCS has not fully translated into proportionate reductions in end-to-end turnaround times for air express cargo. Air express operations remain constrained by structural factors beyond the clearance layer, including limited operating windows aligned to airline schedules, aircraft cooling requirements, and the availability of customs officials. In addition, airline service level agreements require express operators to hand over customs-cleared consignments several hours prior to departure, extending the effective transit cycle. As a result, air express adoption remains limited on several domestic and short-haul lanes, particularly as surface express logistics has benefited from improved infrastructure and comparable transit times.

Challenges in Express
LOGISTICS INDUSTRY



Sustainable Growth in a Highly Competitive Environment

Sustainable growth is becoming a major challenge in the highly competitive express logistics industry. In the B2B space, the last decade has witnessed multiple cases of entry and exit of players, while in the B2C space, the primary challenge lies in achieving growth along with profitability. Express logistics faces its biggest barrier in attaining the threshold volume required to run a network profitably, rather than traditional entry barriers linked to policy or capital expenditure.

High Cost of Speed-Focused Operations

Express logistics operates on tight timelines, requiring faster line-haul, higher manpower intensity, and sometimes air or premium road transport. Fuel price volatility, toll charges, and rising labor costs make it difficult to balance speed with profitability, especially in price-sensitive segments where delivery charges are often absorbed by sellers.

Infrastructure and Hub-and-Spoke Limitations

Although India's highway and airport infrastructure has improved, express-ready infrastructure—such as sorting hubs, inter modal connectivity, and time-definite network service —remains uneven. Capacity constraints at major hubs during peak periods lead to network congestion, shipment backlogs, and SLA slippages.

Lane volume imbalance

Most of the volumes in B2B express logistics flow from industrial and manufacturing locations to consumption areas. In India, industrial clusters and manufacturing zones are not evenly distributed across geographies. This situation leads to load imbalances between forward and reverse lanes in express logistics networks. Since express logistics is a network-centric and time-sensitive model, such imbalances have a significant impact on cost structures and pricing.

Demand Volatility and Peak-Season Pressure

Express logistics volumes are highly seasonal, driven by month end spikes, festivals, and seasonal surges. Managing sudden volume spikes requires temporary fleet, manpower, and space, which raises costs and operational complexity. Under- or over-capacity planning during such peaks can significantly impact delivery performance.

Last-Mile Delivery Complexity

Last-mile delivery remains the single biggest challenge for express logistics in India. High urban congestion, narrow lanes, unplanned localities, and inconsistent address formats increase delivery attempts and reduce rider productivity. In semi-urban and rural areas, longer distances, low drop density, and limited infrastructure further raise cost per shipment, directly impacting service levels and margins.

Technology Gaps Across the Network

While large players use advanced tracking, routing, and automation tools, a significant part of the express ecosystem—including franchise partners and regional vendors—still operates on partially manual systems. This creates visibility gaps, inconsistent tracking updates, and weaker exception management across the delivery network.

Reverse Logistics and Failed Deliveries

High return rates specially in e-commerce, cash-on-delivery rejections, and customer unavailability increase reverse logistics volumes. Failed first-attempt deliveries add extra cost, extend cycle times, and reduce asset utilization, making reverse flows one of the most inefficient parts of express logistics operations. In B2B express return is relatively a smaller issue. But when it comes for reverse pickup from consignee locations, B2C ecosystem is much superior than B2B ecosystem.

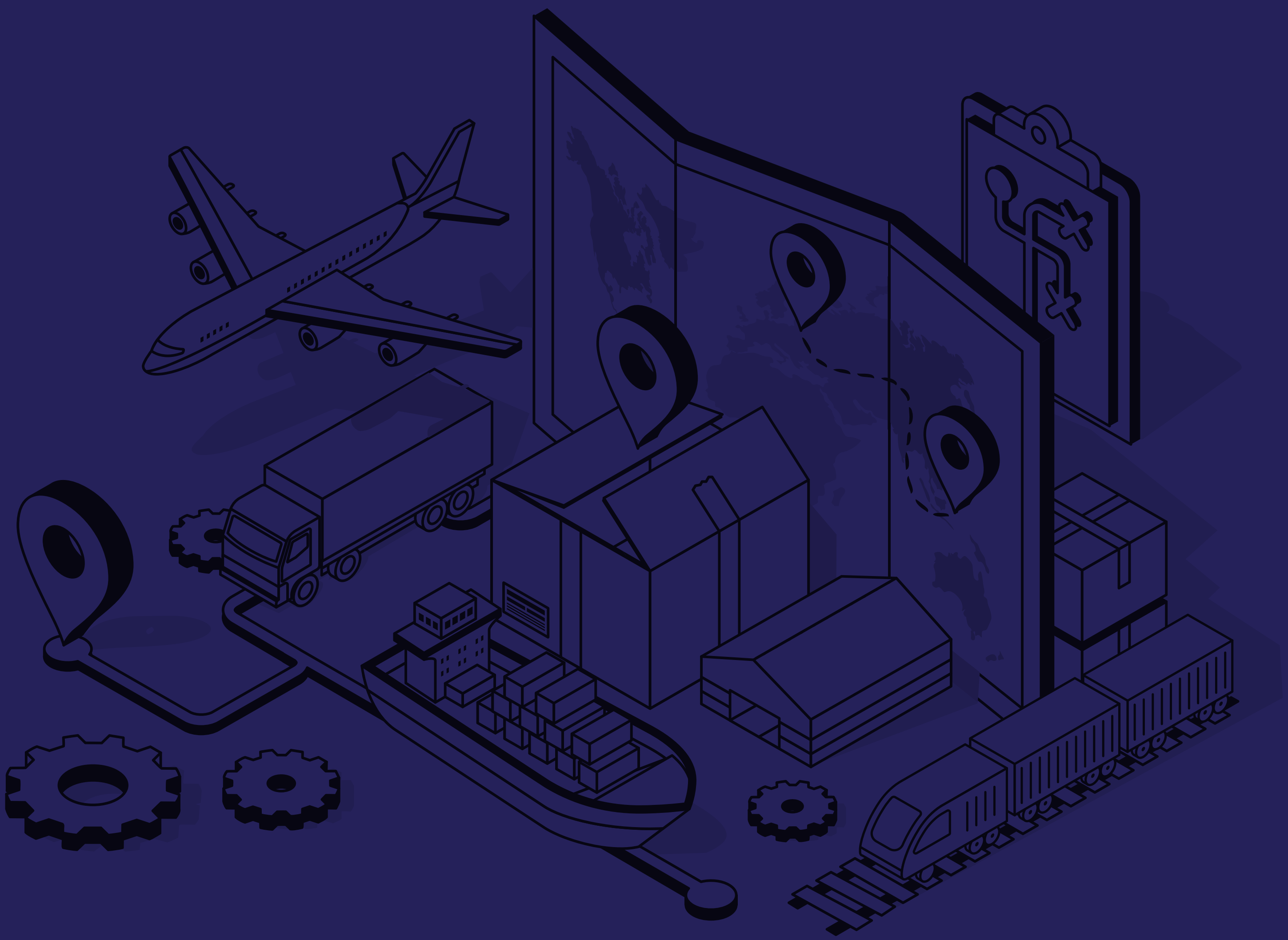
Regulatory and Compliance Challenges

Despite GST simplifying inter-state movement, express operators still face challenges related to e-way bill compliance, documentation accuracy, and local enforcement variations. Any delay at checkpoints or during audits directly affects time-definite delivery commitments.

Workforce Availability and Retention

Express logistics is manpower-intensive, especially in last-mile delivery. High attrition among delivery associates, driver shortages, and increasing expectations for incentives and flexible work models make workforce stability a persistent challenge, particularly during peak demand cycles.

Regulations & Government
SUPPORT



National Logistics Policy (NLP)

- Targets reduction of logistics cost from ~13–14% to ~8–9% of GDP.
- Promotes standardization, digitization, and inter-ministerial coordination.
- Improves turnaround time, asset utilization, and service reliability.
- Enables technology adoption and ease of doing business.

Impact : Lower operating friction, faster inter-state movement, improved reliability of time-definite deliveries.

Airport Cargo Modernization & UDAN

- Expansion of cargo terminals and night-landing facilities.
- Development of regional airports for cargo handling.
- Supports decentralization of air express networks beyond metro hubs.

Impact : Better air cargo access, reduced dependency on major airports, faster regional express connectivity.

Digital Logistics Initiatives (ULIP, e-Way Bill, FASTag, e-Customs)

- ULIP integrates data from multiple government logistics systems.
- e-Way Bills and FASTag enable seamless highway movement.
- Faceless customs and paperless documentation speed up clearances.

Impact : Lower compliance time, reduced paperwork, real-time shipment visibility, faster border and inter-state movement.

EV & Sustainable Mobility Policies

- FAME incentives for electric vehicles.
- State-level EV subsidies and charging infrastructure programs.
- Promotion of green last-mile delivery.

Impact : Lower fuel cost dependency, improved ESG compliance, sustainable last-mile operations.

Dedicated Freight Corridors (DFC)

- High-speed, high-capacity rail corridors for long-haul freight movement.
- Decongest existing rail and road networks.
- Improve reliability and predictability of inter-city cargo flows.

Impact : Indirectly supports faster express movement by freeing road capacity & stabilizing transit schedules.

Cross-Border Trade Facilitation

- Faceless customs assessment and risk-based inspection.
- Digitization of export-import documentation.
- Bonded warehousing and faster clearance mechanisms.

Impact : Faster international express shipments, growth of cross-border e-commerce, MSME export enablement.

Multimodal Logistics Parks (MMLPs)

- Large integrated hubs connecting road, rail, air, and warehousing infrastructure.
- Centralized sorting, consolidation, and distribution capabilities.
- Reduce handling costs and improve hub efficiency.

Impact : Faster hub turnaround, improved line-haul efficiency, lower operational costs.

PM Gati Shakti – National Master Plan

- Integrated planning of road, rail, air, ports, waterways, and logistics parks on one digital platform.
- Enables faster development of express corridors and high-speed freight routes.
- Reduces bottlenecks and duplication in infrastructure investment.

Impact : Shorter transit times, smoother intermodal transfers, better corridor planning for express networks.

Future Outlook

INDIAN EXPRESS LOGISTICS

The Indian express logistics industry is entering a decisive phase where leadership will be shaped not by scale alone, but by network intelligence, operational agility, and strategic capital deployment. As shipment volumes rise and service expectations become tighter, express logistics will increasingly be viewed as a core economic infrastructure that supports India's digital commerce, manufacturing growth, and MSME integration into national and global markets.

Industry consolidation is expected to accelerate, with mid-sized and regional players seeking stronger competitiveness through mergers, acquisitions, and strategic partnerships. At the same time, agility will become a defining advantage. Companies that can redesign routes quickly, balance capacity dynamically, and respond rapidly to demand fluctuations will outperform rigid, asset-heavy networks. The competitive landscape will shift from network size to network efficiency and execution excellence. Network structures are likely to consolidate, with national express players strengthening hub-and-spoke models and reducing reliance on fragmented regional operators.

Sustainability will move firmly into the mainstream. Electric vehicles will gain meaningful share in last-mile operations, especially in urban and semi-urban markets, supported by regulatory incentives and improving total cost economics. Carbon-neutral delivery programs, green warehousing, optimized route planning, and transparent emissions reporting will become standard board-level priorities rather than optional initiatives.

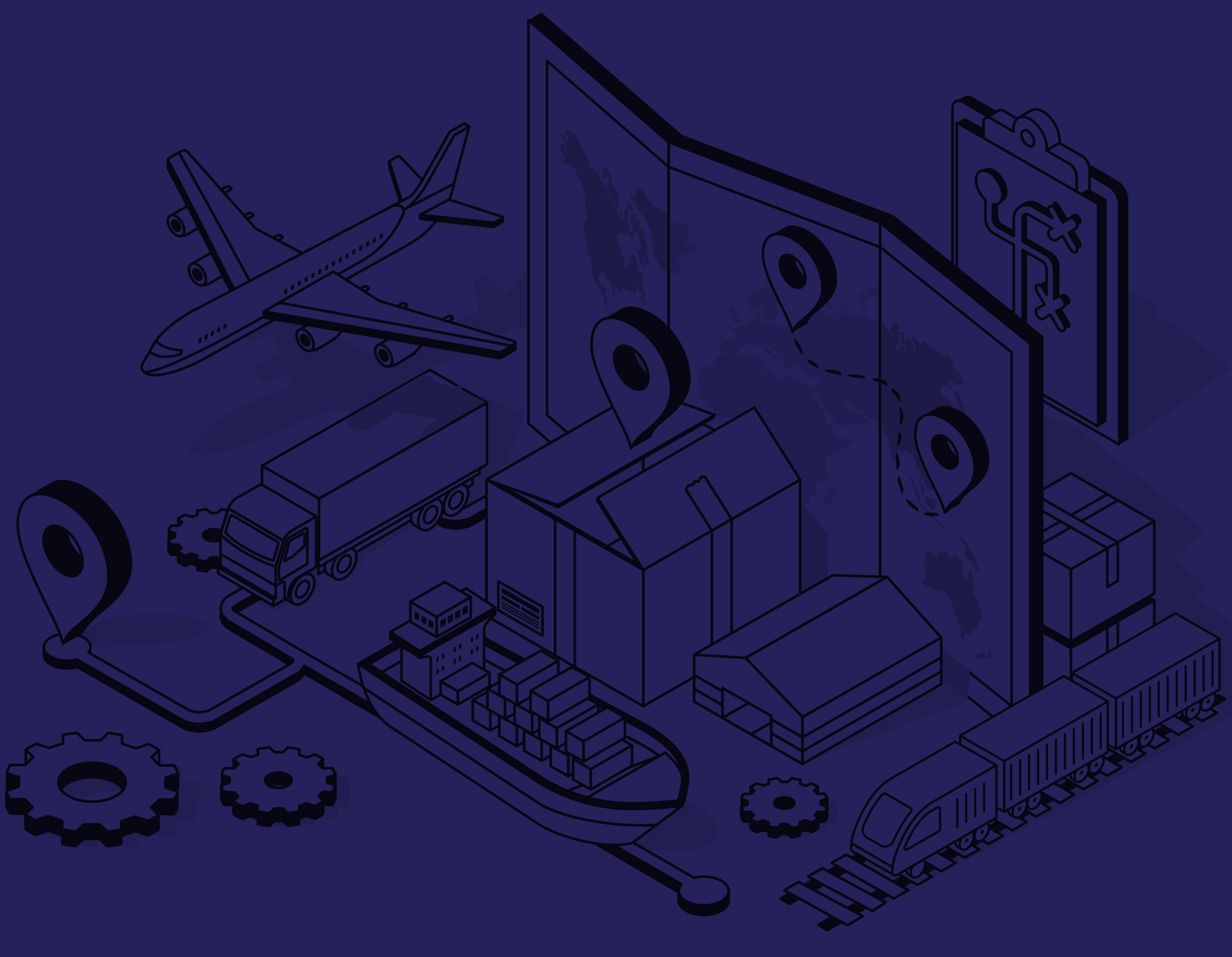
Hybrid operating models will gain structural importance in B2C horizontal e-commerce. On the other hand, B2B shippers will have 3PL partnerships to balance cost efficiency, service quality, and scalability.

Infrastructure development will significantly strengthen express logistics efficiency. The continued rollout of PM Gati Shakti, multimodal logistics parks, dedicated freight corridors, expressways, and airport cargo modernization will reshape network design around faster and more reliable transit corridors. The integration of road, rail, and air networks will reduce dependency on high-cost air freight while improving time-definite service reliability across longer distances.

Technology will remain the central competitive driver. Advanced automation in sorting hubs, AI-led demand forecasting, real-time network control towers, and end-to-end digital customer interfaces will define operational leadership. Express companies will increasingly resemble technology-enabled service platforms rather than traditional transport providers.

Overall, the future of Indian express logistics will be defined by its ability to combine speed with intelligence, scale with efficiency, and growth with sustainability. Organizations that successfully integrate technology, infrastructure, sustainability, and agile operating models into their core strategy will emerge as long-term leaders in this high-impact, high-velocity industry.

Global Overview



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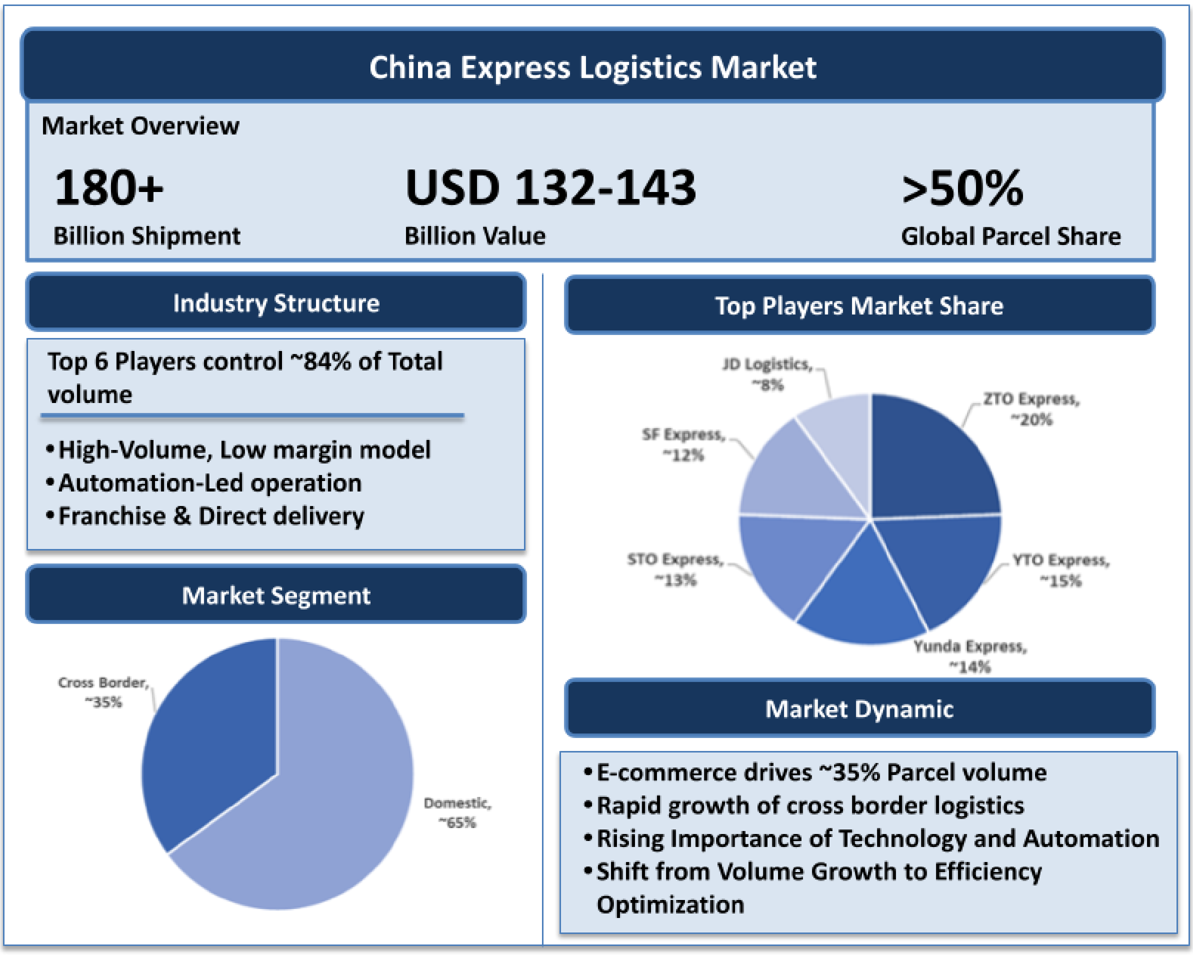
China remains the world's largest and most sophisticated express logistics market, accounting for more than 50% of global parcel volumes. In 2024–25, the country processed approximately 175–180 billion# express shipments, underscoring its unmatched scale and operational intensity. Supported by strong e-commerce penetration, high digital adoption, and sustained infrastructure investment, China's logistics ecosystem has evolved into a highly efficient, technology-driven system.
The total market value is estimated at USD 132–143 billion#. While shipment volumes continue to grow at double-digit rates, revenue growth has moderated due to declining average revenue per parcel and intense competition. This shift reflects the market's transition from rapid expansion toward efficiency-led and margin-focused growth. The rise of live-stream commerce and social shopping platforms has increased order frequency while reducing average order size, placing greater pressure on delivery speed and network efficiency.



Domestic shipments account for approximately two-thirds of total volumes, while cross-border logistics is the fastest-growing segment. Chinese logistics companies are expanding overseas warehouses and international line-haul networks to support outbound trade to Southeast Asia, Europe, and the Middle East.

Market Structure and Competitive Landscape

China's express logistics industry is highly consolidated, with the top six players accounting for approximately 84% of total parcel volumes. This concentration creates high barriers to entry and emphasizes the importance of scale, automation, and network density.
ZTO Express leads the market with roughly 20% share, driven by its highly automated hubs and cost-efficient operating model. YTO Express follows with approximately 15%, benefiting from strong integration with major e-commerce platforms. Yunda Express holds close to 14%, supported by dense regional coverage and operational efficiency. STO Express, with around 13%, maintains a strong nationwide presence. SF Express accounts for approximately 12%, operating a premium, time-definite logistics model, while JD Logistics holds roughly 8%, functioning as an integrated fulfillment and supply chain service provider.

Competitive Models and Operating Structure

China's express market operates under two dominant business models.
The scale-driven network model, used by ZTO, YTO, Yunda, and STO, prioritizes high-volume throughput, cost efficiency, and standardized operations. These companies rely on franchised last-mile networks supported by large automated sorting hubs, enabling low per-parcel costs and high throughput.
The integrated service model, led by SF Express and JD Logistics, focuses on end-to-end control, service reliability, and enterprise-grade logistics solutions. These players cater to time-sensitive shipments, high-value goods, and B2B clients, allowing for stronger pricing power and differentiation.

Performance of Major Express Logistics Players

Company	FY2025 Revenue (USD Bn)	YoY Growth (%)	Parcel Volume (Billion)	Estimated Market Share	Key Positioning
ZTO Express	6.0 – 6.2	8–10%	34–35	~20%	Cost leader; largest automated network
YTO Express	5.0 – 5.3	9–10%	26–27	~15%	Strong e-commerce integration
Yunda Express	4.6 – 4.9	8–9%	23–24	~14%	Dense regional coverage
STO Express	4.4 – 4.6	7–8%	22–23	~13%	Balanced national footprint
SF Express	10.5 – 11.0	5–6%	19–20	~12%	Premium & B2B-focused logistics
JD Logistics	24.0 – 25.0	10–12%	13–14	~8%	Integrated supply chain & fulfillment
Others (Regional & Niche)	–	–	~23–25	~16%	Fragmented regional operators

Source:
- Company annual reports and investor presentations (ZTO, YTO, Yunda, STO, SF Holding, JD Logistics)
- State Post Bureau of China (SPB) – China Express Delivery Development Reports
- Statista, iResearch, and industry market sizing reports
- Aviral Research & Analysis (for harmonisation, ranges, and revenue-per-parcel calculations)

Despite strong demand, profitability remains under pressure due to rising labor costs, intense price competition, and high capital expenditure requirements. In response, companies are increasingly focusing on higher-margin segments such as cold-chain logistics, healthcare distribution, cross-border fulfillment, and integrated supply chain services.

US Express Market

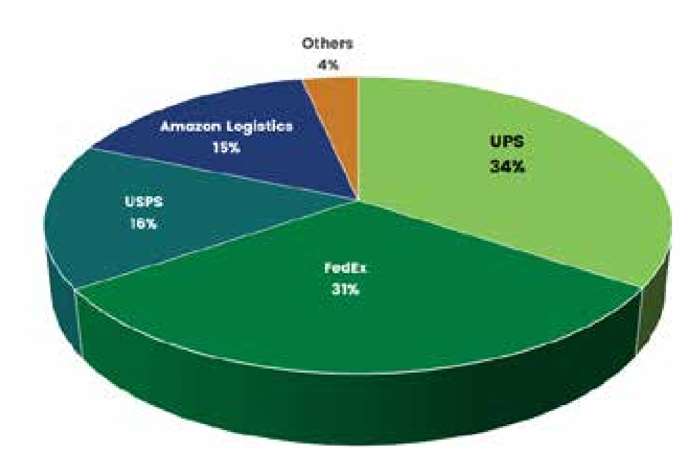
The United States represents one of the most mature and value-intensive express logistics markets globally. In 2024, the U.S. parcel and express delivery sector handled approximately 22.4 billion^* shipments, reflecting a year-on-year growth of 3.4%, while total industry revenue reached USD 203.2 billion^*, growing at a slower pace of 2.7%. This divergence highlights a defining characteristic of the U.S. market—volume growth continues, but pricing power remains under pressure, resulting in declining revenue per parcel. Unlike high-growth emerging markets, the U.S. express ecosystem is characterized by advanced infrastructure, high labor and fuel costs, and customer expectations centered on speed, reliability, and service quality rather than price alone. As a result, the market has evolved into a highly competitive, capital-intensive environment dominated by a small group of national players.

The U.S. express market is highly concentrated, with four major players accounting for more than 90%^* of total parcel volumes. As shown in the chart below, USPS and Amazon Logistics together handle over half of all parcels in the country, underscoring the scale advantages of government-backed infrastructure and vertically integrated e-commerce logistics.

While volume leadership is increasingly concentrated among USPS and Amazon, revenue leadership remains with premium carriers. As illustrated in the revenue distribution chart, UPS and FedEx together account for nearly two-thirds of total U.S. parcel revenue, reflecting their higher yield per shipment.

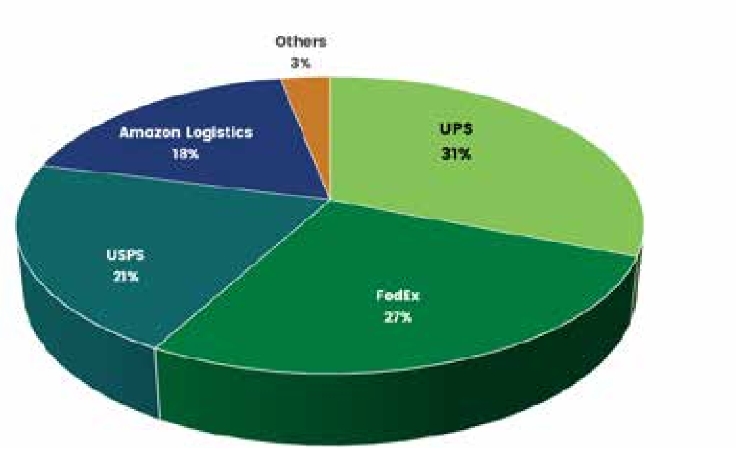
**China's State Post Bureau, www.gov.cn & Aviral Research & Analysis*

Market Share- By Revenue (in %)



Source: Aviral Research & Analysis

Market Share- By Volume (in %)



Source: Aviral Research & Analysis

Company	Revenue (USD Bn)	Parcel Volume (Bn)	Market Share (%)	Revenue per Parcel ($)	Key Positioning
UNITED STATES POSTAL SERVICE USPS	32.5	7.2	17.30%	4.51	National postal backbone
amazon logistics Amazon Logistics	34.7	6.1	18.50%	5.69	In-house e-commerce fulfillment
UPS	59.8	4.8	31.80%	12.46	Premium B2B & express leader
FedEx	48.2	3.4	25.60%	14.18	Time-definite express specialist
Others	13	2.3	6.90%	5.65	Regionals + retailer fleets

Source:
- Company annual reports and Form 10-K filings (UPS, FedEx, Amazon)
- United States Postal Service (USPS) Annual Report
- Pitney Bowes Parcel Shipping Index
- Statista and eMarketer logistics datasets

*^*Pitney Bowes Parcel Shipping Index 2024 & Aviral Research & Analysis*

Express Logistics: A Comparative View of India, China, and the United States

Express logistics refers to time-definite parcel delivery services built around speed, reliability, tracking, and service commitments, primarily supporting e-commerce, business shipments, and high-frequency consumer deliveries. Across China, United States, and India, express logistics has evolved along distinct paths shaped by consumption patterns, infrastructure depth, and operating maturity.

China leads the world in parcel volumes, the United States leads in revenue intensity and service depth, and India is emerging as a fast-growing market where networks are still being built and standardized. This article compares the three markets across scale, network design, service characteristics, economics, and long-term direction, offering a clear and structured industry perspective.

Market Scale and Growth

China operates the world's largest express logistics ecosystem, handling approximately 180 to 190 billion parcels annually. This scale is the result of deep e-commerce penetration across all city tiers and extensive national coverage. Growth in China has moderated, with the focus shifting from volume expansion to efficiency improvement and margin management in an intensely competitive environment.

The United States processes around 22 to 23 billion parcels annually, a fraction of China's volume, but generates substantially higher revenue per shipment. With parcel revenues of about USD 200 billion, the U.S. market is defined by premium pricing, time-definite delivery, and a balanced mix of business and consumer shipments.

India's express logistics market remains smaller in absolute terms, valued at roughly USD 9 to 10 billion, but is expanding steadily. Parcel volumes are rising on the back of e-commerce adoption, growth of direct-to-consumer brands, and increasing use of express services by small and medium enterprises. India is still in a phase of network expansion rather than optimization.

Market Scale and Growth Dynamics (2024–25)

Indicator	China	United States	India
Market maturity	Highly mature, scale-driven	Mature, value-driven	Emerging, high-growth
Annual parcel volume	150 to 180 billion parcels	22 to 23 billion parcels	Several billion parcels
Market value	Large domestic market focused on volume	Around USD 200 billion	Around USD 9 to 10 billion
Growth orientation	Efficiency and scale optimization	Revenue optimization	Volume expansion
Revenue per parcel	Low	High	Low to moderate

Network Structure and Infrastructure

China's express logistics network is characterised by exceptional density and high automation. Large automated sorting hubs, integrated rail–road–air connectivity, and advanced routing systems enable the processing of massive volumes at low unit cost. Rural coverage is embedded within the national network, supported by policy initiatives and shared infrastructure.

The United States relies on a highly structured national network anchored by major air hubs and regional ground facilities. Long-distance movements are handled through scheduled air cargo and interstate highways, with strong emphasis on predictability and service commitments. Operating costs are higher, driven by labour and fuel, but are offset by pricing discipline and service differentiation.

India's network remains fragmented by comparison. Metro-to-metro corridors are relatively strong, while connectivity beyond major cities is uneven. Road transport dominates line-haul movement, and dependence on regional operators remains significant. Ongoing investments in expressways, logistics parks, and freight corridors are improving capacity, but coordination and utilisation continue to be key challenges.

Dimension	China	United States	India
Network design	Dense hub-and-spoke with automated mega hubs	National air and ground hub system	Hybrid national and regional networks
Automation intensity	Very high	High	Moderate, improving
Line-haul integration	Rail, road, and air combined	Optimised interstate corridors	Predominantly road-based
Urban last-mile density	Extremely high	Moderate	High in metros, uneven elsewhere
Rural connectivity	Extensive	Selective	Expanding gradually

Service Characteristics and Customer Expectations

In China, express delivery functions as a utility service. Same-day and next-day delivery are widely available, even for low-value shipments. Price sensitivity is high, and competition among carriers is intense, resulting in thin margins and limited differentiation.

In the United States, customer expectations are centred on reliability, visibility, and adherence to promised delivery windows. Time-definite services, comprehensive tracking, and efficient returns management are critical components of service quality. A substantial share of business shipments supports higher yields and steadier demand.

India presents a more complex service environment. Customers expect fast delivery at low price points, while operational realities include high return rates, address variability, and a continued presence of cash on delivery. These factors increase last-mile costs and operational complexity, even as volumes grow.

Aspect	China	United States	India
Delivery promise	Same-day and next-day at scale	Time-definite express services	Same-day, next-day, rapid delivery
Customer priority	Price and speed	Reliability and visibility	Speed and affordability
Cash on delivery usage	Minimal	Negligible	Significant
Returns handling	Highly streamlined	Advanced and structured	Improving but cost-intensive
Shipment mix	Predominantly B2C	Balanced B2B and B2C	Largely B2C

Cost Structure and Unit Economics

Cost structures differ sharply across the three markets. China benefits from extremely high parcel density, enabling low unit delivery costs despite persistent margin pressure. The United States operates with higher labour and fuel costs but offsets these through premium pricing and service guarantees. India faces the most complex cost environment, where low average order values, high returns, and fragmented networks constrain profitability even as volumes expand.

Competitive Structure and Strategic Positioning

Factor	China	United States	India
Market structure	Highly competitive	Concentrated	Fragmented
Role of e-commerce firms	Deeply integrated	Strong in-house net-works	Rapidly expanding captive models
Pricing power	Limited	Relatively strong	Limited to moderate
Industry consolidation	High	High	Gradual

Outlook

China's express logistics market is transitioning from expansion to optimisation, with future gains driven by efficiency improvements, sustainability initiatives, and cross-border flows. The United States will continue to prioritise service quality, automation, and monetisation rather than volume growth. India's express logistics sector is still being built, and its long-term trajectory will depend on network consolidation, infrastructure utilisation, and disciplined service pricing.

Together, these three markets illustrate how express logistics evolves from scale creation to value extraction, shaped by consumption patterns, infrastructure maturity, and competitive structure.

Financials

FY25 emerged as a milestone year for the Indian express logistics sector, marking a clear transition from scale-driven expansion to efficiency-led and financially disciplined growth. The industry began to demonstrate maturity, with profitability, cash flow management, and network optimisation becoming as important as volume growth.

At a Glance – Indian Express Logistics Industry

Listed players set the tone for this transformation. Delhivery's first-ever profitable year stands out as a defining moment for the industry, proving that scale in express logistics can now be converted into sustainable earnings through cost control, network rationalization, and a sharper focus on B2B and PTL services. Blue Dart continued to reinforce its position as the most stable and premium express player, backed by its air express dominance and the strength of DHL's global network. TCI Express once again highlighted the strength of the B2B express model, maintaining high profitability, a debt-free balance sheet, and strong operating margins despite revenue pressures and SME market slowdown. Mahindra Logistics showed signs of recovery, supported by restructuring initiatives and improving performance in contract logistics and express services.

Captive logistics platforms emerged as the largest players by scale. E-Kart and Amazon Transport Services (ATS) now operate at revenue levels comparable to, and in some cases higher than, traditional express logistics companies. While both remain loss-making, FY25 showed meaningful progress in operational efficiency. E-Kart's strong revenue growth and narrowing losses demonstrate the increasing monetization of its infrastructure beyond Flipkart's captive volumes. Similarly, ATS's sharp reduction in net losses highlights Amazon's success in improving network productivity, line-haul optimization, and last-mile cost efficiency. These trends indicate that captive logistics networks are rapidly evolving into near-commercial 3PL platforms.

At the same time, FY25 exposed the structural challenges within the pure e-commerce express model. XpressBees' sharply rising losses, flat revenue growth, and declining cash reserves underline the intense pricing pressure, high freight and handling costs, and capital-intensive nature of e-commerce parcel logistics. This reinforces the reality that scale alone is no longer sufficient; profitability depends on pricing power, cost efficiency, and balance sheet strength.

Mid-sized and surface-focused players also showed steady strategic positioning. Allcargo Gati continued its revival in the surface express segment by strengthening its B2B and SME focus and improving network productivity, while Safexpress maintained its leadership in B2B express supported by its warehousing-linked distribution model. DP World Express strengthened its role as a technology-driven, line-haul-focused express platform integrated with a global logistics ecosystem.

Overall, FY25 establishes three clear industry realities:
- Profitability has become as important as growth.
- Captive logistics networks are emerging as serious competitors to traditional express players.
- Pure e-commerce express models remain structurally stressed due to thin margins and high cost intensity.

FY25 can therefore be seen as the year when the Indian express logistics sector moved into a more mature phase, where sustainable business models, capital efficiency, and operational excellence started defining long-term leadership more than network size alone.

Company	FY25 Revenue (₹ Cr)	FY25 PAT / Profit (₹ Cr)	Remark / Key Update
DELHIVERY	8,932	162	First-ever profitable financial year; strong focus on cost control, network efficiency, and B2B express growth.
BLUE DART	5,720	245	Continued dominance in premium air express; stable margins supported by DHL's global network and high-yield customers.
Mahindra LOGISTICS	5,013	44	Turned profitable again; restructuring, cost optimisation, and stronger contract logistics performance supported recovery.
allcargo GATI	1,510	13	Surface express revival under Allcargo Group; focus on B2B, SME cargo, and network rationalisation.
SAFEXPRESS	3979	311	Continued leadership in B2B express logistics with strong warehousing-linked distribution network across India.
XPRESSBEES delivering happiness	2874	-370	Losses surged 85% YoY despite flat revenue growth, showing intense pricing pressure in e-commerce parcels.
TCI EXPRESS LEADER IN EXPRESS	1220	~86	Slight revenue dip in FY25 vs FY24 due to pricing pressure and SME slowdown, but the company remains debt-free and highly profitable. Express cargo contributes ~70% of revenue.
ekart	13,733	-1515	Reduced net loss by 12% YoY driven by strong revenue growth. Logistics, transportation & warehousing services grew 13% to ₹10,602 Cr, warehousing revenue surged 27% to ₹1,536 Cr.
amazon freight	5,284 – 5,370	-33.9	Strong turnaround year with ~8% revenue growth and a 57% reduction in net losses, indicating improved operational efficiency and better cost control across line-haul and last-mile operations.

Acronyms

&

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Acronym	Full Form
GDP	Gross Domestic Product
FY	Financial Year
IMF	International Monetary Fund
RBI	Reserve Bank of India
MoRTH	Ministry of Road Transport & Highways
PIB	Press Information Bureau
AAI	Airports Authority of India
IR	Indian Railways
DFC	Dedicated Freight Corridor
GCT	Gati Shakti Multi-Modal Cargo Terminal
NLP	National Logistics Policy
NIP	National Infrastructure Pipeline
NMP	National Monetisation Pipeline
ULIP	Unified Logistics Interface Platform
IWAI	Inland Waterways Authority of India
CEP	Courier, Express & Parcel
B2B	Business to Business
B2C	Business to Consumer
C2C	Consumer to Consumer
MSME	Micro, Small & Medium Enterprises
CAGR	Compound Annual Growth Rate
GFCF	Gross Fixed Capital Formation
PFCE	Private Final Consumption Expenditure
NTKM	Net Tonne Kilometre
BTKM	Billion Tonne Kilometre
RCS	Regional Connectivity Scheme
PUD	Pickup & Delivery Centre
ODA	Out of Delivery Area
CN	Consignment Note
EV	Electric Vehicle
SLA	Service Level Agreement
JIT	Just-In-Time
JIS	Just-In-Sequence

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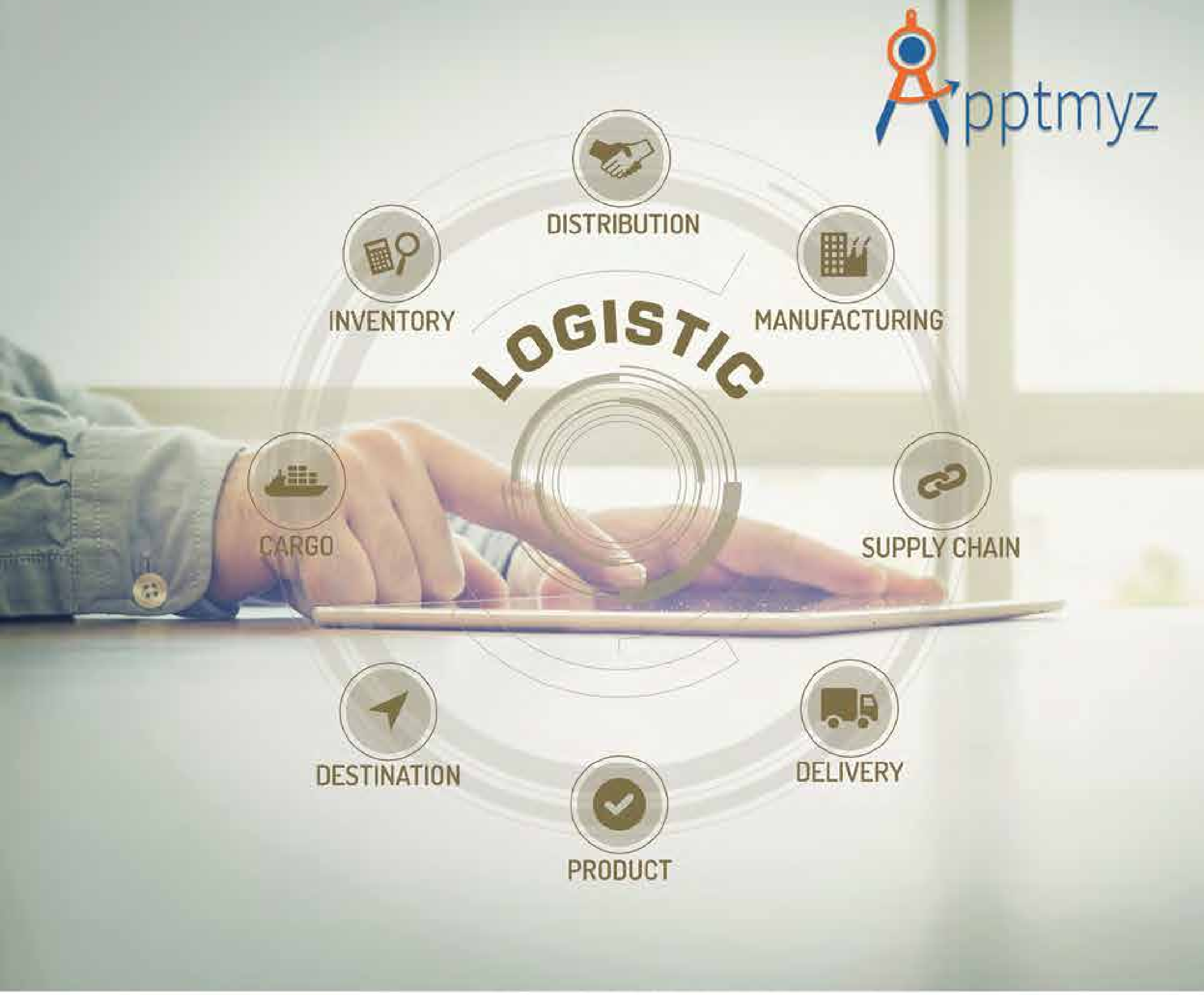

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