

Delhivery – Well Played!

**DELHIVERY**

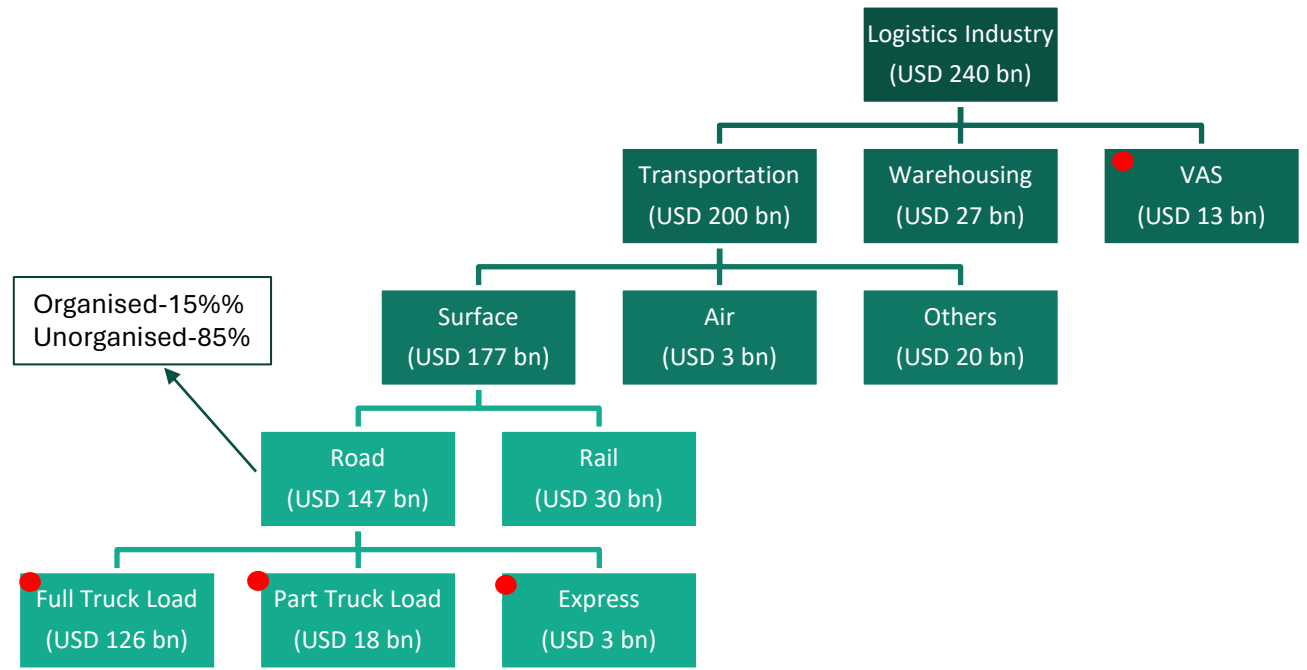
# Delhivery – Getting to Minimum Efficient Scale!

- Delhivery grew aggressively between 2019 to 2023 at a CAGR of 47% to garner a commanding 22% market share in the Indian express parcel business
  - ✓ Delhivery commands >40% share among third-party providers and is 2x larger than its closest competitor resulting in unmatched route density
  - ✓ Higher drops per hour in the last mile is itself a key competitive advantage
- Delhivery strategically expanded its network of fulfillment and dispatch centers across India, with a focus on automation to drive substantial productivity gains in warehousing operations. These centers are interconnected with a state-of-the-art technology stack, giving Delhivery a significant technological advantage over competitors, as confirmed by industry experts
- Having established a strategic advantage in fulfillment costs (last mile and warehousing), Delhivery targeted cost leadership in Line Haul by integrating its Express and PTL business. Integration of PTL enhances opportunities for return loads and helps maximize capacity utilization, further reducing unit costs
- Acquisition of Spot-On faced Integration challenges affecting capacity utilization and delayed profitability for Delhivery by a few years. However, we believe these challenges are largely resolved, with the company already posting healthy incremental margins
- Amongst 3PL players, Delhivery is positioned as a disruptive force, boasting the lowest operational costs as it gets to minimum efficient scale in the business. Incremental margins are highly attractive, exceeding 35% in the Express segment and 50% in the PTL business. It is a long-term compounder and is trading at 32 times FY27E earnings

Segments	Primary Factor Influencing Cost	Delhivery's Positioning
Last Mile Cost	Route Density - More drops per hour	40% volume market share. 2x the route density of its closest competitor
Warehousing Cost	Throughput: Labour Productivity	Best In Class Tech & Automation
Line Haul Cost	Fleet Utilization: Higher Return Load	Integrated Mid Mile for Express & PTL and strategically growing PTL Biz

INR Crs	FY24E	FY27E	Incremental
Revenue	8283	13418	5135
Less: Operating Cost	6333	9372	3039
Contribution Profit	1950	4046	2096
Contribution Margin %	24%	30%	41%
Less: Corporate Expenses	2105	2489	384
EBIDTA	-156	1556	1712
EBIDTA Margins %	-2%	12%	33%

# Logistics Industry- Overview

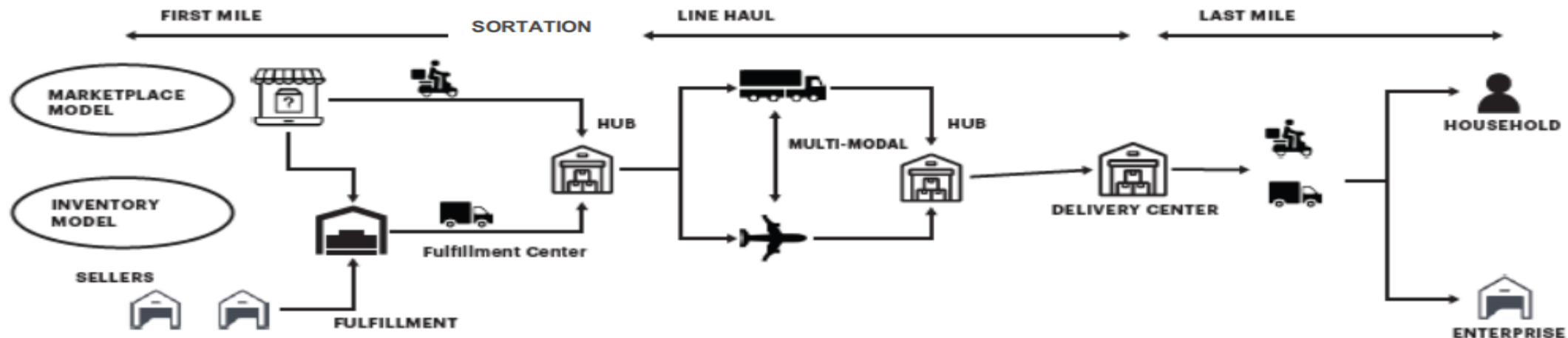


● Delhivery's operation segments

- The Indian logistics sector is poised to achieve a 8% CAGR, fuelled by robust economic growth, extensive infrastructure development, a thriving manufacturing sector supported by policy reforms and investments, and a flourishing digital economy
- Transportation and warehousing form the core of the logistics market, with transportation commanding a 70% share. Organized players are gaining traction due to their ability to offer integrated services, operational efficiencies, and technology investments
- Technology adoption is revolutionizing logistics operations, enhancing efficiency through capacity utilization, data-driven decision support, and automation
- Road Logistics encompasses three primary subdivisions: Full Truck Load (FTL), Part Truck Load (PTL), and Express Logistics. FTL/PTL services cater to large freight shipments, while Express parcel services focus on small to medium-sized parcel deliveries. Drivers of Express Parcel and PTL business
  - ✓ B2C Demand: The ascent of the middle-income segment, rapid digital adoption, and the surge in online shopping are key drivers
  - ✓ B2B Demand: Evolving business models, shifting manufacturing trends, the demand for integrated services, and the emergence of new markets are driving the need for logistics services

# Logistics = Transport + Fulfillment

- Road Logistics encompasses three primary subdivisions: Full Truck Load (FTL), Part Truck Load (PTL), and Express Logistics
- FTL focuses solely on the transportation leg, while Express and PTL combine both transportation and fulfillment legs. Essentially, they encompass the line haul(transport) and warehousing, first mile, and last mile (fulfillment) components
- Transport and fulfillment entail vastly different cost drivers. Line haul costs are typically calculated based on "per ton km," whereas fulfillment costs are assessed on a "per parcel" basis
- FTL is simple as it requires tracking shipment at the truck level which in Part Truck Load and Express tracking it at the Parcel level entailing significant investment in technology
- In FTL, the line haul constitutes 100% of the total cost, while in PTL and Express, where door-to-door service is involved, fulfillment represents a larger portion. In PTL, transportation accounts for roughly 50% of the total cost, with fulfillment making up the remaining 50%, while in Express, line haul costs comprise approximately 35%, and warehousing, first mile, and last mile constitute 65% of the total costs
- While transportation and fulfillment entail vastly different cost drivers both have very high operating fixed cost
- The operational leverage in the line haul segment depends on capacity utilization, while in the fulfillment leg, more than 60% of the cost is attributed to the last mile. Operational leverage here hinges on route density or the number of drops per hour



# **TRANSPORT AND FULFILMENT BUSINESS**

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## **Unit Economics and Margin Drivers**

# Segment-Wise Distribution Of Costs

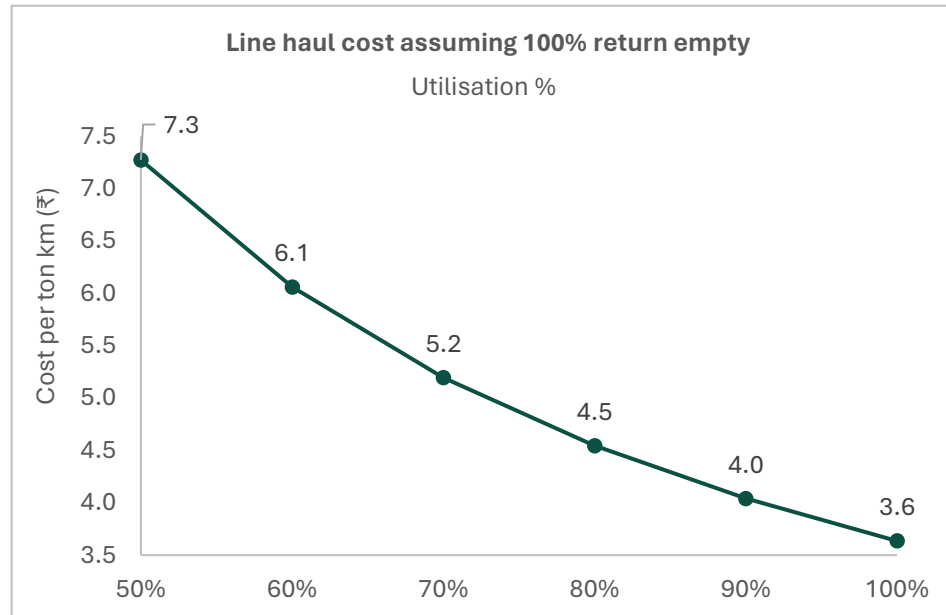
- Line haul aka mid-mile dominates the cost structure of FTL, as it involves minimal fulfillment services beyond basic loading and unloading tasks
- As parcel sizes shrink, complexity grows leading to a rise in fulfillment costs and necessitating investment in technology. In fact, in Express services, last-mile delivery constitutes 35-40% of the total cost
  - ✓ In developed countries, where labor costs are high, the last mile can be as high as 65%
- Cost increase is not directly proportional to the weight or distance covered as while mid-mile expenses may fluctuate with distance traveled it has little bearing on fulfillment costs
  - ✓ Hence comparing realization vs competitors or against historical numbers becomes difficult
- Given high operating fixed cost route density is the most critical factor influencing profitability, not realisation:
  - ✓ For the Transportation (mid-mile) segment capacity utilization has a material influence on cost per km
  - ✓ For first and last-mile expenses route density which is directly tied to the number of drops per hour impacts fulfillment cost per parcel

Segments	Line Haul / Mid Mile	Warehousing	First Mile	Last Mile
Of Total Cost	Transportation Leg	Fulfilment Leg		
Full Truck Load	>95%	<5%	0	0
Part Truck Load	50-60%	10-15%	12-18%	12-18%
Express Parcel	35%	10-15%	12-15%	35-40%
Units of Measurement	Per ton Km	Per Parcel		
Drivers	Fleet Utilisation	Labour Productivity		

# Line Haul Expense – Understanding Cost Per Ton Km and its Drivers

- In line haul the cost is a function of tonnage that is hauled per trip (forward leg + Return Leg) and the volumetric weight of the cargo
- The industry prices the cargo assuming the return leg is empty i.e.. cost charged for double the distance travelled from Point A to Point B. At 100% utilization in the forward leg, for heavier cargo such as cement, steel, water etc. we estimate cost per ton km to be ~INR 3.6 per ton
- Realisation for heavier cargo is lower compared to lighter cargo as tonnage capacity is compromised. Industry average capacity utilization is 60-70% given volumetric restriction. This translates into an average cost of ~INR 5.5 per ton km
- Realisation for forward leg (demand centre) must be higher than cost. Unless this price is offered there is no incentive for a truck operator to operate on this route
- Profitability is in optimizing the return leg. Higher the capacity utilization in the return leg higher the profitability as marginal cost for return leg is zero. Revenue = Profits
- We consulted with a logistics industry expert to determine the "cost per ton kilometer." In the following example, we considered a 25-ton Ashok Leyland truck with a payload capacity of 16 tons travelling 1000 km one way

Total Cost	per trip	per km	per ton km
<b>Fixed expenses</b>			
EMI	23,812	11.9	0.7
Driver salary	7,400	3.7	0.2
Maintenance	3,333	1.7	0.1
Miscellaneous	8,000	4.0	0.2
<b>Total fixed</b>	<b>42,545</b>	<b>21.3</b>	<b>1.3</b>
<b>Variable expenses</b>			
Diesel	52,457	26.2	1.6
Toll	22,727	11.4	0.7
Tyre	2,273	1.1	0.1
<b>Total variable</b>	<b>77,457</b>	<b>38.7</b>	<b>2.3</b>
<b>Total cost</b>	<b>120002</b>	<b>60</b>	<b>3.6</b>



Capacity Utilisation(%)	Tons	Cost per ton km
30%	9.9	6.06
40%	13.2	4.55
50%	16.5	3.64
60%	19.8	3.03
70%	23.1	2.60
80%	26.4	2.27
90%	29.7	2.02
100%	33.0	1.82

The mentioned cost reflects the utilization on a per-trip basis. For instance, if a 25-ton truck is utilized at 70% capacity for its outbound journey and 50% for the return cargo, this results in a 50% utilization per trip. As the utilization improves during the return trip, the cost per ton kilometer decreases.

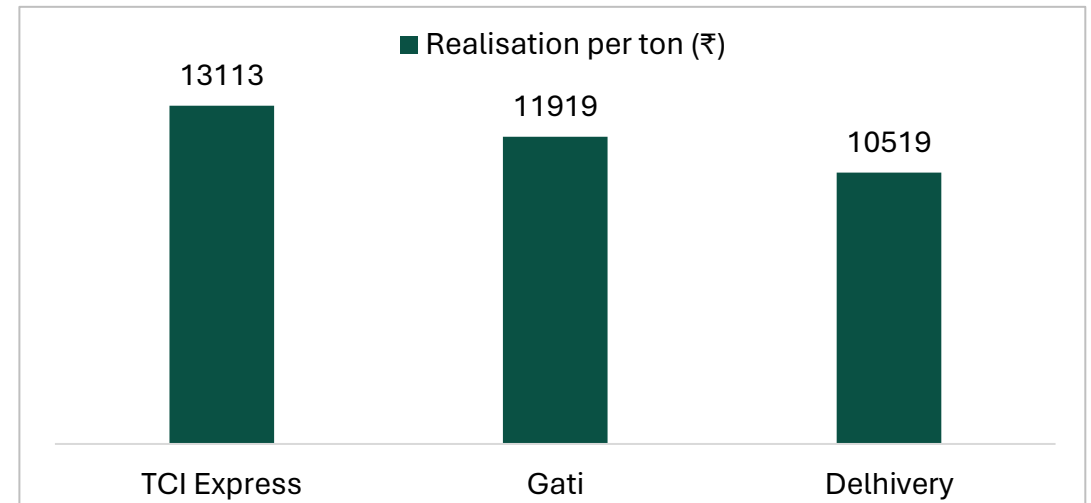
# Why Realisation Per Ton Is Misleading?

- As operating cost for the round trip is recovered in the forward leg incremental margins for the return leg is close to 100%
- Operators focus on increasing total revenues per trip. Realization per ton is not a relevant matrix and can be misleading
- As we see in the example alongside-
  - ✓ Considering a 25-ton truck with a payload capacity of 16 tons. We have assumed that the truck is carrying heavy cargo and volumetric restrictions are not at play
  - ✓ In Journey 1, the truck transports 16 tons of cargo on the outward journey and 6 tons on the return, resulting in a total revenue of ₹1,36,000 for the trip, with a realization per ton km of ₹ 3.1
  - ✓ In Journey 2, the truck transports 16 tons of cargo on the outward journey and 10 tons on the return, resulting in a total revenue of ₹1,48,000 for the trip, with a realization per ton of ₹ 2.8
- Capacity utilization is the key driver of profitability, despite a decrease in realization per ton-km in Journey 2, overall profit rose by ₹12,000 in line with revenue growth.
- Incremental margins are close to 100%
- Published numbers suggest that realization per ton for Delhivery is lower than that of TCI express and Gati. While we do expect this gap to reduce but caution against making direct comparison.

Operators Optimize For Revenue Per Trip as Operating Cost is Fixed				
Working for 25-ton Truck with a payload capacity of 16 tons				
Journey 1	Capacity (tons)	Kms	Realisation Per Ton Km	Total*
Forward	16	1,000	3.5	1,12,000
Return	6	1,000	2.0	24,000
<b>Total</b>	<b>22</b>	<b>2,000</b>	<b>3.1</b>	<b>1,36,000</b>
Trip Cost				1,20,000
<b>Profit Per Trip</b>				<b>16,000</b>
Journey 2	Capacity (tons)	Kms	Realisation Per Ton Km	Total*
Forward	16	1,000	4.0	1,28,000
Return	10	1,000	1.0	20,000
<b>Total</b>	<b>26</b>	<b>2,000</b>	<b>2.8</b>	<b>1,48,000</b>
Trip Cost				1,20,000
<b>Profit Per Trip</b>				<b>28,000</b>

\* Calculations are done on round trip basis

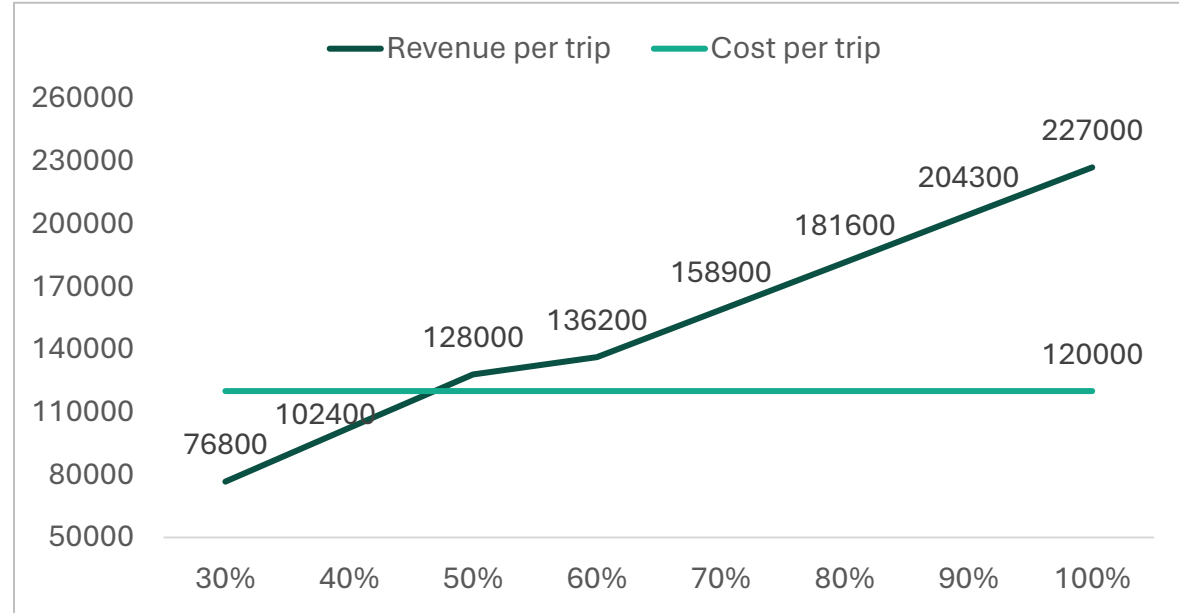
## Realisation Per Ton Alone Done Not Reveal The Full Story



# What makes PTL business attractive?

- Part Truck Load (PTL) addresses an important customer need – renting only part of truck capacity where full truck capacity is not required.
- Collecting enough volumes per route is the key to establishing a viable business. Network-level capacity utilization takes a very long time to build and is the competitive moat in the business
- Achieving high-capacity utilization is more difficult for Express PTL business as they run a shuttle service with scheduled departure time
  - ✓ Truck ply the route at scheduled time regardless of capacity utilization
- Like-for-Like, PTL business can command 40-50% higher realization vs FTL. For Express PTL this can be significantly higher
  - ✓ Lower capacity utilization necessitates higher realisation which customers are happy to pay vs hiring a full truck
- Want makes PTL business highly attractive is their ability to build volumes for a return load
  - ✓ As PTL players establish the network they gradually start building volumes both on forward and return routes and keep improving capacity utilization at the network level
  - ✓ As marginal cost is negligible incremental profits in the mid-mile are close to 100%
  - ✓ Mid Mile accounts for 50-60% of the total cost and hence incremental margins at the company level are close to 50%

As the cost remains same, Incremental Revenue=Profit



Round Trip Utilisation	Revenue per trip	Profit per trip
30%	76800	-43200
40%	102400	-17600
50%	128000	8000
60%	136200	16200
70%	158900	38900
80%	181600	61600
90%	204300	84300
100%	227000	107000

# What Makes or Breaks The Express Parcel Business?

- Express Parcel is delivery of small parcels to millions of end customers. Operational it is significantly more complex to execute upon and requires technology to track each parcel and optimise the most efficient delivery path
- In Express Parcel business, fulfilment cost accounts for >65% of total cost. Hence the influence of mid-mile cost is materially lower compared to FTL or PTL business
- >50% of the fulfilment cost is incurred on the last mile. As it is the biggest cost item optimising for it becomes the key competitive advantage
- Increasing the number of drops per hour results in reducing cost per unit. Increase in number of drops is a function of route density and whether it is a schedule delivery or unscheduled delivery
  - ✓ In scheduled delivery such as commerce express business number of drops per hour are higher as they go on a milk run compared to unscheduled delivery such as quick commerce or food delivery
  - ✓ Thus, despite similar hourly wages delivery cost per parcel is much lower
- The operating leverage comes from increasing volume of parcels in one area. Hence the land grab to build volumes market share
- By reducing the delivery radius productivity per delivery boy can be optimised leading to lower per-parcel cost while keeping hourly wages competitive
- In other words, scale could have a disproportionate impact on cost per parcel as it improves delivery density and increases number of drops per hour

Factors	Food delivery	Quick Commerce	Ecommerce Logistics
Type	Unscheduled	Unscheduled	Scheduled (Milk run)
Players	Zomato, Swiggy	Blinkit, Zepto, Instamart	Delhivery, Xpressbees, Bluedart
Hourly wages (Metros)	130	130	130
Drops per hour	2.4	3.0	7.0*
Cost per delivery	54	43	18

\* After accounting for no-show

# **COMPETITIVE ADVANTAGE**

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**Route Density**

# Industry Dynamics And Competitive Landscape

- Legacy logistics firms failed to meet the needs of e-commerce, lacking speed, reliability, and tailored services like Cash on Delivery (COD). This spurred the rise of tech-savvy newcomers, investing in advanced systems to fulfill these demands. Each focused on a specific aspect to drive a competitive edge.
- Route Density is the most important factor influencing last-mile cost. Experts note US last mile costs at 65% vs 40% in India due to higher wages. Amazon's route density improves productivity and helps cut costs by 30% compared to competitors, yielding a 20% overall advantage.
- Globally, surface transport stands out as a highly profitable sector, even in the United States where Amazon holds a dominant position and enjoys significant advantages in last-mile delivery due to a higher number of drops per route. Despite this, third-party logistics giants like FedEx and UPS consistently maintain healthy EBIT margins of around 10%
- We expect major Indian logistics players to outperform their US counterparts in surface segment EBIT margins due to lower last-mile costs, reducing the competitive disadvantage of 3PL companies versus captives. COD further complicates the Express Parcel business, warranting higher profitability.
- Air Express in the US and international markets struggles with FedEx's segment managing only 2.5%. Conversely, India's Air Express sector, despite shorter distances, boasts high profitability due to lack of reliable service, allowing companies like Blue Dart to charge premiums. As service levels improve and customer perceptions change, Air Express profitability may face challenges.

## Competitive Positioning

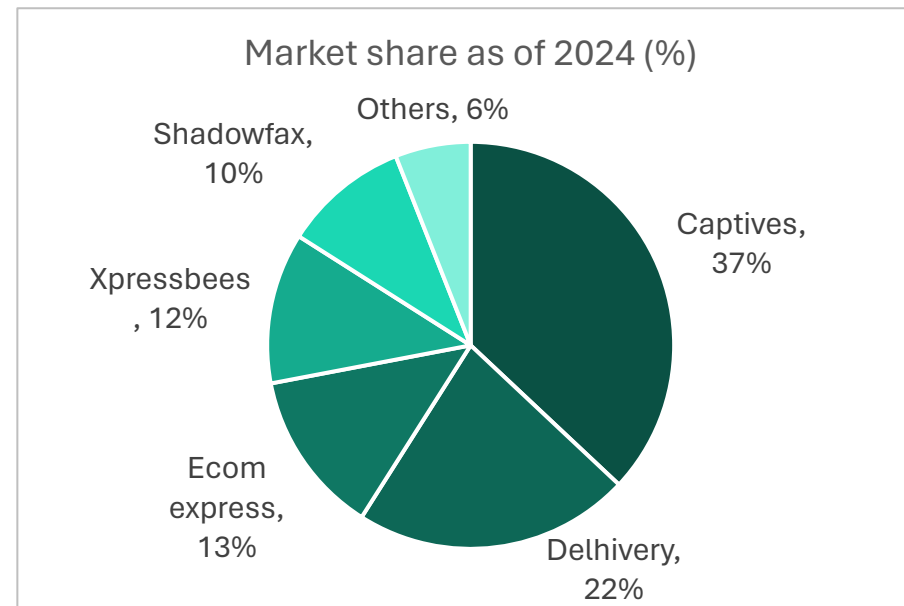
	Delhivery	Ecom Express	Xpressbees	Shawdox	Blue Dart
Strength	Best in Class - tracking, optimisation and fulfillment tech stack	Network Coverage	Asset Light Outsourced Variable Cost Model	Agile Tech Platform	Own aircraft provide better control and reliability
USP	Delivering heavy goods like white goods/appliances, which requires specialized handling	Delivery to Tier 3 and Tier 4 locations	Efficient line-haul operations	Return Logistics	Priority document delivery segment

## Unlike Popular Perception Air Express is not very Profitable for FedEx

FY 23 (USD bn)	Fedex Air Express	Fedex Ground
Revenue	42.56	33.40
EBIT Margin	1.06	3.14
EBIT Margin %	2.5%	9.4%

# Delhivery: Strategic Positioning and Competitive Advantage

- Express parcel accounts for 66% of revenue for Delhivery while PTL accounts for 17%
- Delhivery is the leader in the Express Parcel business with a 22% market share
  - ✓ In India, e-commerce captives collectively dominate half of the parcel market. As a result, Delhivery commands over 40% market share among third-party service providers, leading to unmatched volume density per route and positioning it as India's lowest-cost operator
  - ✓ Delhivery handles 2.2million parcels daily, ~ 2x that of its closest competitor
  - ✓ There's immense potential as online sellers gravitate towards service providers offering multi-channel capabilities. Delhivery stands out, processing packages for platforms such as Amazon, Flipkart, Snapdeal, and Meesho.
- Strategically, Delhivery aimed to capture a significant market share in express parcels biz to reduce its fulfillment cost, especially its last-mile costs. Higher route density led to higher drops per hour resulting in lower cost per unit.
- Delhivery also has the most advantage in-house technology for express parcel delivery. Technology edge was consistently highlighted by industry experts-
  - ✓ Technology is crucial in route optimization to minimize last-mile costs
  - ✓ Automation in picking, packing, and sorting helps boost productivity reducing handling costs per unit
- Higher route density and technology edge have established Delhivery as the cost leader in the industry



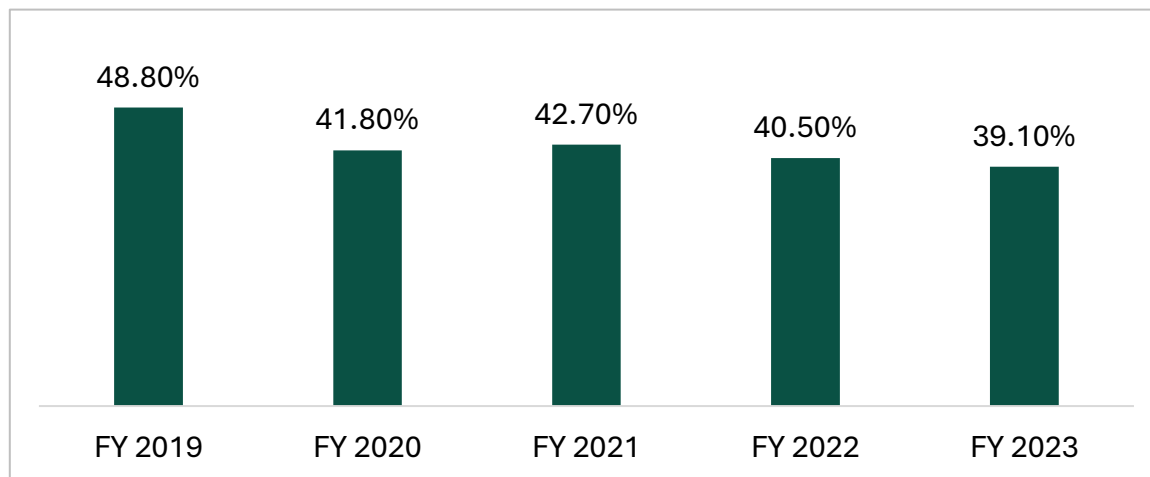
(in mn shipments)	2020	2021	2022	2024E
Total shipments	1400	1770	2281	3479
Share of captive	818	1062	1186	1670
Share of 3PL	582	708	1095	1809
Delhivery's express delivery	225	289	582	780
Share from ecommerce	220	283	570	690
<b>Delhivery's market share(%)</b>				
Overall	15.7%	16.0%	25.0%	22.0%
3PL	37.8%	40.0%	52.1%	43.1%

Source: Thirdbridge, Axia Estimates

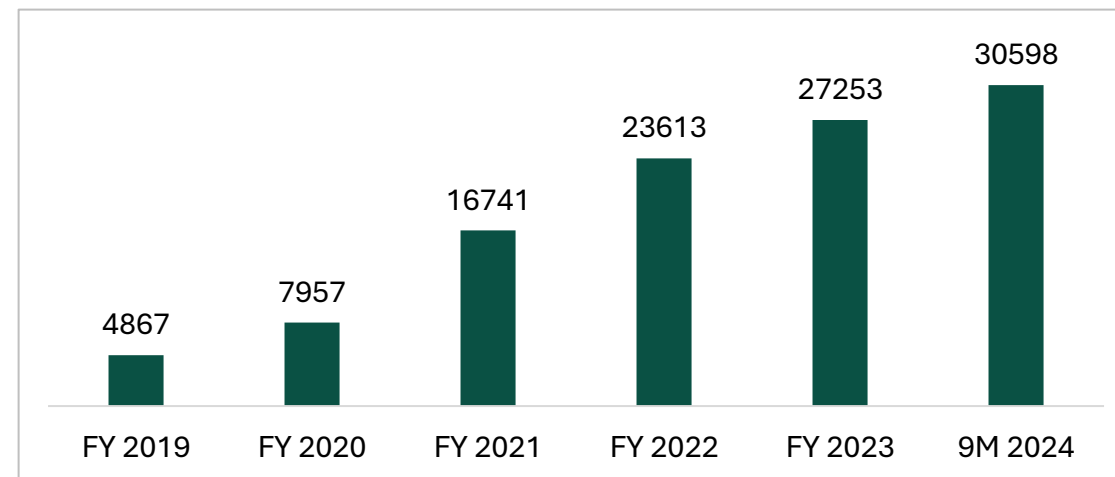
# Competitive Intensity In Express Parcel Should Reduce

- The industry's emphasis on scale led to a land grab, intensifying pricing pressures over the past decade. These volumes were chiefly sourced from major national e-commerce giants (Captives)
- Identifying logistics as a competitive advantage these captives are now moving high-traffic routes in-house and building their own logistic business
- Captives now mostly outsource delivery to costly, low-density areas. Despite the overall volume, the dispersed nature doesn't yield operational benefits. Competing aggressively for these routes isn't feasible nor of strategic value for third-party players. Delhivery is strategically diversifying its customer base and reducing reliance on Captives.

Share of top 5 customers as a % of revenue is coming down



Active customer base continues to expand as Delhivery gains market share



- With the shifting market dynamics, acquiring incremental market share will be a gradual process. We foresee that winning over additional SME customers would necessitate substantial investments in sales and marketing efforts.
- Bolstered by a robust balance sheet, Delhivery is well-equipped to fend off competitive threats, swiftly matching any price wars and potentially driving them out of the market
- With cost and market leadership established in Delhivery we expect pricing discipline to return

# Delhivery - The Strategy Behind Adding PTL Business

- Delhivery, having established itself as a leader in the Express Parcel industry, is now setting its sights on conquering the Part Truck Load (PTL) sector. This transition marks a strategic move to diversify its business and tap into new revenue streams
- PTL presents unique challenges, particularly in building a robust collection network at various nodes to ensure efficient fleet utilization. This entails garnering sufficient loads at each point to maximize the capacity utilization of its transportation fleet across the entire network
- To bolster its presence in the PTL domain, Delhivery made a significant acquisition in August 2021 by bringing Spot-On into its fold. This acquisition was pivotal in gaining access to Spot-On's extensive collection network, thereby building scale in the PTL segment
- Analysis of Spot-On's financial data from 2022 underscores the critical role of line haul costs, which constitute a substantial portion—50%—of total revenue in the PTL business. This highlights the importance of optimizing transport logistics to drive profitability
- Despite its strategic rationale, Delhivery encountered challenges in integrating its systems with Spoton, leading to operational inefficiencies and a drop in service levels during peak demand season when capacity got diverted to Express Parcel business.
- Instances of lost or damaged Parcels during transit increased due to integration issues leading to customer dissatisfaction and boycotts. These operational hurdles impacted capacity utilization and therefore profitability
- We note that these challenges are largely behind. Lost shipments as % of sales have come down with notable improvement in PTL volumes. Improved utilization and cost optimization has improved profitability
- Delhivery is significantly investing mid-mile and has bought its own tractor trailer which now haul more than 60% of the total cargo

# Mid Mile Integration of Express And PTL To Be A Game Changer!

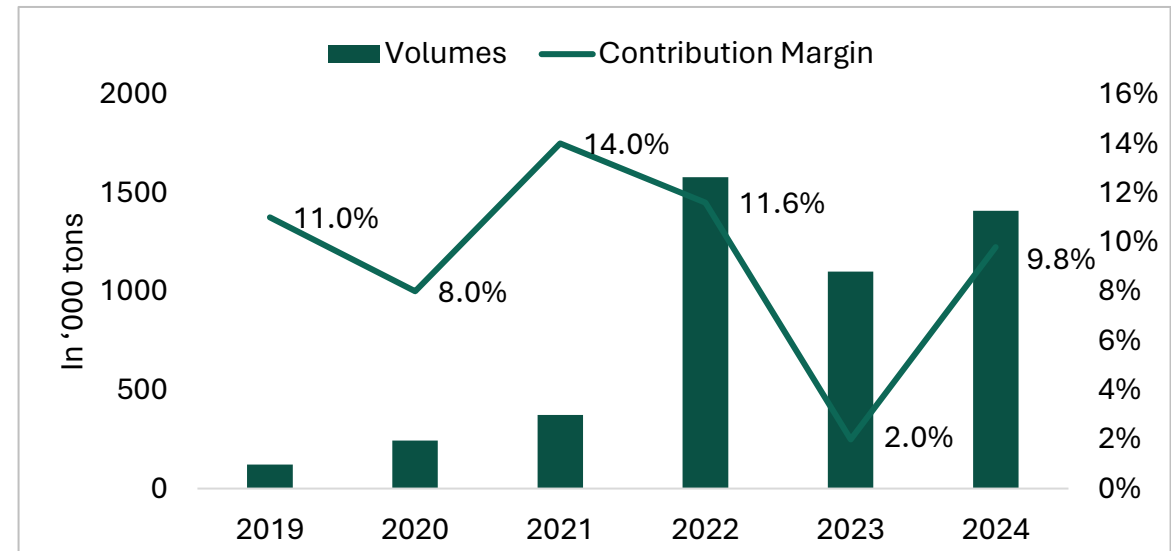
- The Express Parcel business faces the challenge of inadequate return loads, resulting in inefficient fleet capacity utilization during round trips. This means that vehicles often return with empty space, leading to missed opportunities for maximizing profitability
- In contrast, PTL operations thrive on network efficiency, benefiting from heavy cargo loads where each parcel weighs around 50 kilograms. This combination of higher utilization and heavier parcels optimizes fleet capacity utilization, minimizing empty space and maximizing revenue potential
- Recognizing the significance of network optimization, Delhivery invests in its salesforce to strategically collect cargo for desired routes, offering competitive rates. This proactive approach not only ensures optimal utilization of transportation capacity but also nurtures a resilient network for efficient cargo collection and delivery
- The linchpin of PTL business expenses lies in line haul costs, also known as Mid mile costs. As fleet utilization improves, operational efficiency increases, leading to a proportional decrease in the cost per ton kilometer. This underscores the significance of optimizing fleet usage to drive down operational costs and boost profitability
- World over ground express and freight services operate within an integrated network of distribution centers, transportation hubs, and delivery routes. This integration facilitates efficient resource allocation, resulting in faster transit times, cost savings, and enhanced service reliability for both express and freight shipments
- Analyzing the financial dynamics reveals that incremental profits for mid-mile operations are nearly 100%. Given that mid-mile costs constitute approximately 35% for express and 50% for PTL of the total cost, the incremental margin flow is similar. This emphasizes the potential for substantial profit gains through effective mid-mile management
- Delhivery's strategic vision involves integrating Express and PTL networks within the same line haul, a move that promises to significantly reduce mid-mile costs. This integration optimizes resource allocation driving further efficiency gains and cost advantage and bolstering Delhivery's competitive position in the market

# .... And It Is Already Reflecting – Line Haul Cost Analysis

- We know that Line Haul Cost for Express is lower compared to PTL and FTL business
- Despite the fact overall revenue mix deteriorates in favor of line haul heavy FTL business we note that there has been a 4.6% reduction in line haul cost
- In other words, combining mid-mile for Express and PTL is already showing results
- This is despite negative operating leverage in PTL business where volumes have still not recovered to FY22 levels
- We estimate that gross margins in the PTL business are below par and are just recovering to FY22 levels
- We expect operating leverage in Line Haul cost will continue and will be a significant driver of profitability in the coming years

Particulars	FY22	% of Total	9MFY24	% of Total
Total Revenue	6,692	100.0%	6,060	100%
Express	4,190	62.6%	3,860	63.7%
PTL	1,346	20.1%	1,099	18.1%
FTL	287	4.3%	434	7.2%
PTL + FTL	1,633	24.4%	1,533	25.3%
Line Haul Cost	2193	<b>37.7%</b>	1,893	<b>35.1%</b>

Based on our Working we see PTL margins have recovered despite lower volumes



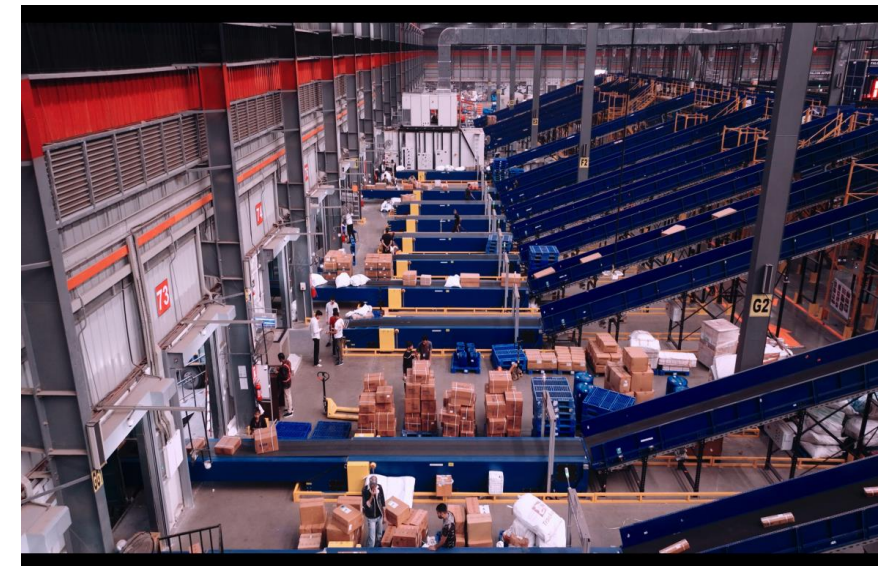
- **Robust In-house Logistics Technology Stack:**
  - ✓ Delhivery boasts an extensive suite of over 80 applications tailored to meet modern supply chain demands
  - ✓ These applications are orchestrated by a central platform to streamline transaction flows from end to end
- **Data-Driven Operational Decision Making:**
  - ✓ Delhivery collects, structures, and processes vast amounts of transaction and environmental data in real-time
  - ✓ With over 1 billion orders and 30 billion shipment lifecycle event points, they leverage machine learning for capabilities like intelligent geo-location, route optimization, and fraud detection
- **Seamlessly Interoperable Network:**
  - ✓ By leveraging its platform, data intelligence, and automation, Delhivery enables seamless interoperability across the network
  - ✓ This allows for shared infrastructure and operational capacity, setting new service standards such as e-commerce-like turnaround times for traditional PTL shippers
- **Expansion and Externalization of Technology:**
  - ✓ Delhivery has technology development centers across India and plans for further expansion globally
  - ✓ Their logistics OS facilitates interoperability and flexibility, enabling the creation of custom applications across various business lines
  - ✓ They aim to externalize their logistics operating system as a platform and SaaS offering, allowing other logistics service providers and enterprises to leverage their technology with plug-and-play solutions, ultimately fostering innovation in the supply chain market
  - ✓ TransportOS, a full-fledged transportation management system, and DispatchOne, a last mile delivery application, are ready for monetization
- **Orion: A Truckload Freight Brokerage Platform:**
  - ✓ A pivotal truckload freight brokerage platform that swiftly matches demand with available truckload capacity. It comprises a robust freight matching engine, operational modules for tracking execution, and a transaction management system for financial aspects
  - ✓ Orion plays a critical role in sourcing transport capacity for its own needs. However, by transforming it into a marketplace, it has the potential to wield significant control over a substantial portion of the industry's supply, paving the way for future monetization opportunities

- *Based on our interactions with Industry experts we understand that that a 3PL logistics provider can have two key technological advantages. First, an ERP system capable of managing the entire lifecycle of a package within the network. Second, optimization tools that can significantly enhance productivity, efficiency, and visibility*
- *Delhivery leverages advanced technology across various aspects of its logistics operations to improve efficiency compared to competitors like XpressBees, Ecom Express, and Blue Dart. Some key technologies highlighted are:*
  - ✓ **Integrated APIs and customer dashboard:** *Delhivery's APIs are well-integrated with various tools and warehouse management systems used by sellers/customers, allowing seamless order upload and tracking. The customer dashboard provides real-time tracking and visibility into shipment movements*
  - ✓ **Advanced last-mile delivery technology:** *Delhivery uses efficient technology for last-mile deliveries, including scanning and tracking, which is more advanced compared to competitors*
  - ✓ **End-to-end technology integration:** *Delhivery's technology is integrated across the entire logistics process, from shipment booking and pickup to sorting, distribution, and fulfilment, increasing operational efficiency*
  - ✓ **Proprietary fulfilment software:** *Delhivery has developed its own proprietary software for fulfilment operations, which is superior to off-the-shelf solutions and provides multi-channel and multi-warehouse capabilities*
  - ✓ **Faster network expansion:** *Delhivery has been able to expand its network rapidly into remote geographies using technology-enabled models like franchisee delivery, giving it an advantage over competitors*
- *On the other hand, Blue Dart, despite investing in technology in recent years, still falls behind Delhivery in terms of integrating advanced technology, providing real-time visibility, and offering interactive features for customers in the B2C space*

- **Automated Sortation Centers and Gateways:**
  - ✓ Delhivery operates 30 fully and semi-automated sortation centers and 110 gateways across India
  - ✓ Mega gateways in Tauru, Bhiwandi, and Bengaluru feature automated material handling systems and machine-vision guided truck loading systems
  - ✓ System-directed floor operations and path expectation algorithms enhance productivity and reduce errors
- **Versatile Gateway Operations:**
  - ✓ Gateways serve as multifunctional logistics hubs, handling pickup, sortation, consolidation, deconsolidation, dispatch, and customs clearance
  - ✓ Capable of simultaneously managing various product categories including express parcel, PTL, heavy goods, cross-border and freight
- **Continuous Innovation and Talent Investment:**
  - ✓ Delhivery prioritizes reinforcing innovation by developing advanced technology and data systems
  - ✓ Investment in top engineering talent ensures ongoing enhancement and optimization of automation processes
- **Future Automation Initiatives:**
  - ✓ Deployment of automatic guided vehicles, storage and retrieval systems, and unmanned aerial vehicles for sortation and last-mile delivery
  - ✓ Implementation of "soft robotics" and "exoskeleton" products to reduce worker fatigue
  - ✓ Transitioning cargo and two-wheeler fleets to electric vehicles for sustainability
  - ✓ Testing UAV operations and scaling up machine vision capabilities for specialized delivery use-cases
  - ✓ Collaboration with research institutions to drive innovation and development in automation technology

# Lonad Gateway- Notes Form Our Visit and Interaction

- Delhivery has made significant strides in the logistics industry with the establishment of Lonad gateway at Bhiwandi. This sprawling facility spans 7 lakh square feet, boasting 193 docks and the capacity to handle 1600 vehicles daily
- It processes an impressive 6 lakh bags/boxes per day, including nearly 5.6 lakh express parcels consolidated in 30,000 mixed bags, alongside other PTL parcels
- Thanks to automation, the workforce at this immense facility has decreased by 60% to 1300 employees across three daily shifts, with a fixed component of 60% and variable adjustments based on seasonal and high-volume months
- Technological advancements have yielded several improvements:
  - ✓ Automation has boosted productivity by over 50%
  - ✓ Cross belts now facilitate sortation instead of regular conveyor belts, increasing capacity from 12,000 to 32,000 items per hour
  - ✓ Telescopic conveyor belts for the last leg with multi-directional flexibility to load shipments directly into vehicles
  - ✓ Mid-mile turnaround time at the gateway has reduced from 35 minutes to 8-10 minutes, reducing yard waiting time for the truck
  - ✓ Falcon Autotech systems have been implemented, enhancing speed and dwell time monitoring for better service and efficiency
  - ✓ Primary sorting and movement from inbound docks to secondary sorting have been eliminated



# Management Emulating Amazon's Blueprint

- Invest aggressively to gain a strategic advantage
  - ✓ Both build significant volume to have a higher route density
  - ✓ Aggressively invested in technology and Infrastructure to gain a competitive advantage in fulfilment cost
- Focused on unit economics and not total cost recognising that leverage is massive
  - ✓ Add capacity ahead of time to gain market share but sought continuous improvement in unit cost
  - ✓ Unit costs while improving did not reflect in overall numbers due to underutilization
- Productise Technology investment to monetize it in future
  - ✓ Transport-OS and Dispatch-OS address critical business needs for Delhivery as are necessary investments to gain competitive advantage. However, by productizing it they have opportunities to monetize it in the future
  - ✓ Orion is critical for it to source transport capacity for its own needs. But by making it like a marketplace can control a dominant portion of industry supply enabling it to monetise it in the future
- Depreciate aggressively. High reported losses do not draw attention from the competition. But never lose sight of operating cash flow
  - ✓ Delhivery depreciates >20% of its tangible block every year. Its key assets – Trucks and Warehouse have a life of > 15 years. In fact, in US Fedex and UPS fleets have an average life of > 20 years. Many trucks have been running for more than 25 years
  - ✓ Cash flow from operation has been positive and cash on books has only increased despite losses

## AMAZON Q42022 Earnings Call

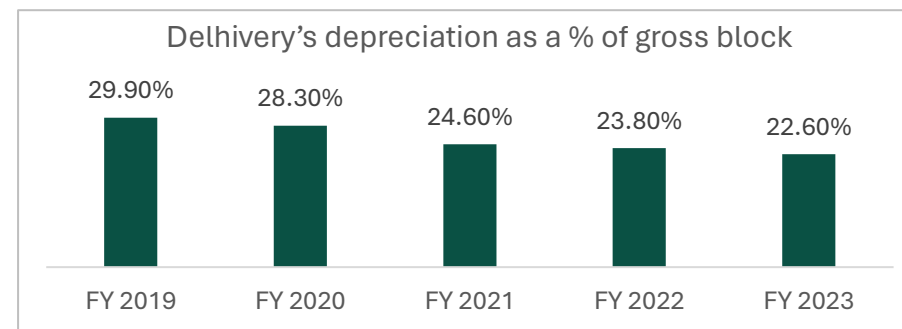
Andy Jassy – Chief Executive Officer

“Probably the No. 1 priority that I spent time with the team on is reducing our cost to serve in our operations network. And as Brian touched on, it’s important to remember that over the last few years, we’ve – we took a fulfillment center footprint that we’ve built over 25 years and doubled it in just a couple of years.

And then we, at the same time, built out a transportation network for last mile roughly the size of UPS in a couple of years. And so when you do both of those things to meet the huge surge in demand, you’re going to – just to get those functional, it took everything we had. And so there’s a lot to figure out how to optimize and how to make more efficient and more productive. And then I think at the same time, if you think about doubling the number of fulfillment centers you have and then adding a very large transportation network and you realize that all of those facilities have to link together to get products to customers, that’s a pretty big expansion in the number of nodes in the network.”

Brian Olsavsky-- Chief Financial Officer

We also saw continued efficiencies across our transportation network, where process and tech improvements resulted in higher Amazon Logistics productivity and improved line haul fill rates. While transportation overperformed expectations in the quarter, we also saw productivity improvements across our fulfillment centers, in line with our plan



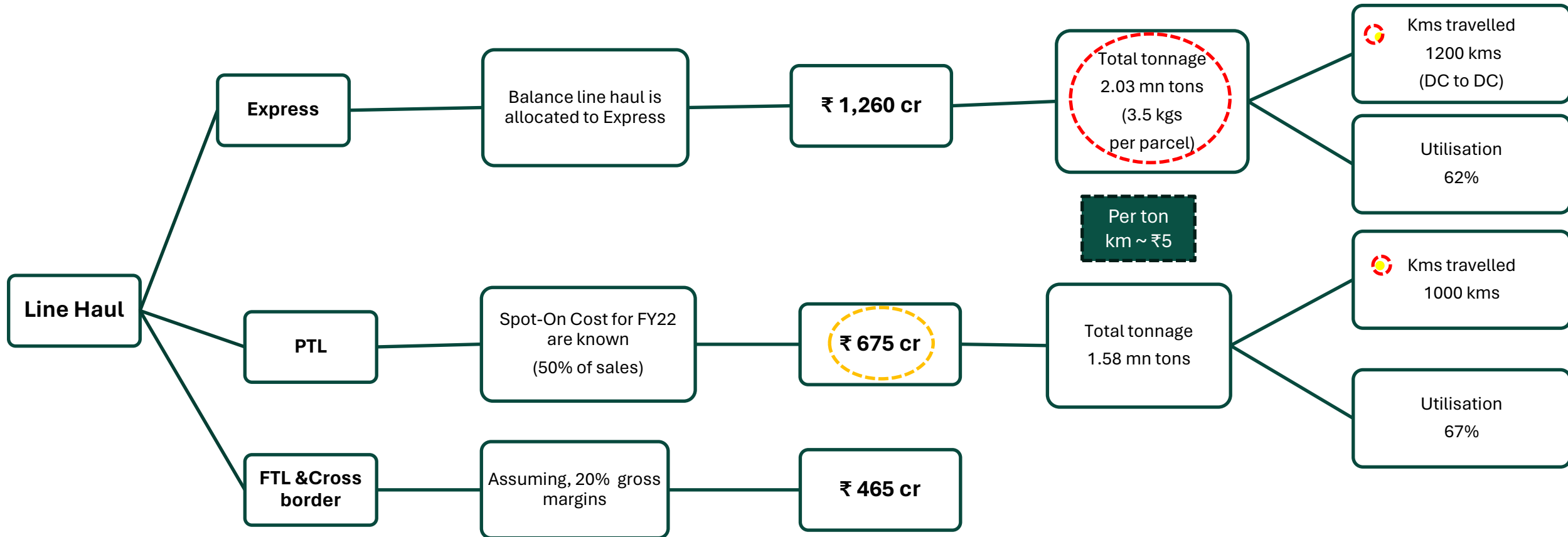
Delhivery’s CFO (₹ cr)	FY 2021	FY 2022	FY 2023	H1 2024
<b>Loss before Tax</b>	<b>-415.7</b>	<b>-1029.4</b>	<b>-1053.1</b>	<b>-197.2</b>
<b>Add: Non-Cash Items</b>				
Depreciation	354.6	610.7	831.1	338.5
Share based payments	72.3	308.4	289.1	122.6
Others	51.3	378.3	-89.3	-78.0
<b>CFO pre NWC</b>	<b>62.5</b>	<b>268.0</b>	<b>-22.1</b>	<b>186.0</b>
Operating NWC changes	77.7	-68.6	-119.7	123.5
<b>CFO post NWC</b>	<b>140.2</b>	<b>199.4</b>	<b>-141.8</b>	<b>309.5</b>

# **FINANCIALS & VALUATIONS**

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# Dissecting The Line Haul Expenses Across verticals

We took FY22 as the based year for our calculations are we have the financials of Spoton which helps us segregate the financials of PTL business



Estimated based on Spoton FY22 financials with is only focused on PTL business and form majority of Delhivery's PTL revenues in FY22

Based on Expert interactions to understand costing, Axia Estimates

# Dissecting Fulfilment cost (ex-PTL) as of FY 2022

For PTL business, the cost allocation is done on basis of Spoton financials and assumed weight per parcel is 50 kgs



Estimated Based on channel checks and expert interactions. Note: If 10 parcels are attempted in an hour, only 6-7 are delivered due to no show.

Estimated at a higher number of parcel picked up from a single location.

Note: Axia Estimates

# Unit Economics – Dissecting Financial Numbers

- We note that the gross margins and costs for the Express business have consistently remained within a specific range, except for 2023, which was affected by increased competitive intensity. This decline has been noted in all listed logistic companies .i.e. Blue Dart, TCI Express, VRL Logistics.
- Regarding PTL, we observe that the margins in 2024 have returned to 2022 levels even though the volumes have yet to fully recover. This indicates that operating leverage has occurred in PTL, suggesting potential for further growth and a return to normalcy

Per Parcel cost for Express	2019	2020	2021	2022	2023	2024
Volumes (in cr shipments)	15	22	29	58	69	78
Realisation Per Parcel	92	86	88	72	66	68
Mid Mile	26.4	27.2	30.7	21.6	19.4	17.6
as a % of total	38%	38%	41%	39%	37%	35%
Last Mile	20.4	21.9	23.0	20.3	19.4	18.2
as a % of total	29%	30%	31%	37%	37%	36%
First Mile	6.5	6.1	9.5	5.9	7.0	7.1
as a % of total	9%	8%	13%	11%	13%	14%
Warehousing	16.1	17.2	11.9	7.4	7.0	7.1
as a % of total	23%	24%	16%	13%	13%	14%
Total Cost	69.3	72.5	75.0	55.2	52.8	50.1
Gross	23.2	13.4	13.2	16.8	12.9	18.3
gross margin	25%	16%	15%	23%	20%	27%

Per Ton cost for PTL	2019	2020	2021	2022	2023	2024
Volume ('000 tons)	122	243	374	1579	1101	1409
Realisation Per Ton	11,494	9,492	10,272	8,524	10,509	10,561
Mid Mile	5,769	5,333	5,000	4,273	5,309	5,143
as a % of total	56%	61%	56%	57%	52%	54%
Last Mile	941	840	924	1109	1522	1404
as a % of total	9%	10%	10%	15%	15%	15%
First Mile	1000	1050	1155	942	1237	1299
as a % of total	10%	12%	13%	13%	12%	14%
Warehousing	2,522	1,503	1,804	1,212	2,235	1,681
as a % of total	25%	17%	20%	16%	22%	18%
Total Cost	10,233	8,727	8,883	7,536	10,304	9,526
Gross	1,261	765	1,389	988	205	1,035
gross margin	11%	8%	14%	11.6%	2.0%	9.8%

Note: Axia Estimates

# Improvement in Incremental Margin Visible

	2020	%	2022	%	2024E	%	2026E	%
<b>Revenue</b>	<b>2775</b>	<b>100%</b>	<b>6692</b>	<b>100%</b>	<b>8283</b>	<b>100%</b>	<b>11470</b>	<b>100%</b>
Express Revenue	1929	70%	4190	63%	5303	64%	7155	62%
PTL revenue	231	8%	1346	20%	1488	18%	2415	21%
FTL revenue	366	13%	287	4%	558	7%	719	6%
SCS revenue	215	8%	551	8%	755	9%	973	8%
Cross border	34	1%	318	5%	178	2%	209	2%
<b>Direct Cost- Consolidated</b>	<b>2339</b>	<b>84%</b>	<b>5304</b>	<b>79%</b>	<b>6333</b>	<b>76%</b>	<b>8247</b>	<b>72%</b>
<b>Line haul expenses</b>	<b>1093</b>	<b>39%</b>	<b>2399</b>	<b>36%</b>	<b>2684</b>	<b>32%</b>	<b>3618</b>	<b>32%</b>
- Express	611	32%	1260	30%	1369	26%	1740	24%
- PTL	130	56%	675	50%	725	49%	1106	46%
- FTL	329	90%	258	90%	502	90%	647	90%
- Cross Boarder	22	10%	207	38%	89	12%	125	13%
<b>Last Mile expenses</b>	<b>314</b>	<b>11%</b>	<b>699</b>	<b>10%</b>	<b>1512</b>	<b>18%</b>	<b>1851</b>	<b>16%</b>
- Express	303	16%	664	16%	1345	25%	1619	23%
- PTL	11	5%	35	3%	168	11%	232	10%
<b>First Mile Expense</b>	<b>109</b>	<b>4%</b>	<b>317</b>	<b>5%</b>	<b>622</b>	<b>8%</b>	<b>866</b>	<b>8%</b>
- Express	96	5%	274	7%	486	9%	649	9%
- PTL	12	5%	43	3%	136	9%	217	9%
<b>Warehousing and misc.</b>	<b>554</b>	<b>20%</b>	<b>986</b>	<b>15%</b>	<b>1194</b>	<b>14%</b>	<b>1410</b>	<b>12%</b>
- Express	383	20%	414	10%	530	10%	584	8%
- PTL	23	10%	135	10%	149	10%	217	9%
- Cross Boarder	9	25%	80	25%	62	35%	73	35%
- Supply Chain	140	65%	358	65%	453	60%	535	55%
<b>Loss shipment</b>	<b>17</b>	<b>1%</b>	<b>71</b>	<b>1%</b>	<b>110</b>	<b>1%</b>	<b>110</b>	<b>1%</b>
<b>Contribution Profit</b>	<b>435</b>	<b>16%</b>	<b>1389</b>	<b>21%</b>	<b>1949</b>	<b>24%</b>	<b>3223</b>	<b>28%</b>
<b>Incremental Margins</b>			<b>24%</b>		<b>35%</b>		<b>40%</b>	

# Delhivery – Significant Operating Leverage

- ✓ Incremental margins are the key driver of profitability. We have calculated segment-wise incremental margins by evaluating unit economics after talking to experts, business operators and delivery boys to pencil each expense head across Line Haul, Warehousing, and Fulfilment Cost.
- ✓ EBITDA after accounting for lease rentals and ESOP cost
- ✓ Corporate expense should not grow in line with revenues as is already noticed in the last 3 years. This trend should continue.

	2020	%	2022	%	2024E	%	2026E	%	2028E	%
Revenue	2775	100%	6692	100%	8283	100%	11470	100%	15611	100%
Direct Costs	2339	84%	5304	79%	6333	76%	8247	72%	10607	68%
Contribution Profit	435	16%	1389	21%	1949	24%	3223	28%	5004	32%
Incremental Margins										
Fixed Cost	769	28%	2199	33%	2105	25%	2353	21%	2647	17%
EBIDTA	-334	-12%	-810	-12%	-156	-2%	870	8%	2357	15%
PBT	-261	-9%	-1021	-15%	-54	-1%	715	6%	2223	14%
PAT	-261	-9%	-1002	-15%	-40	0%	536	5%	1668	11%

- ✓ There is significant operating leverage in the business as seen from our forecast. Based on our estimates company trades at 67x FY26E and 20x FY28E after providing for full tax. Free Cash flow conversion from FY25 is more than 100%.

- Given high incremental margins in the business growth is the business risk.
  - ✓ Majority of Delhivery's revenue (~50%) is derived from customers operating in the e-commerce industry. Any slowdown in this industry or any company-specific risk to a major e-commerce marketplace (like Flipkart, Amazon, Meesho, etc.) or online brands can impact revenue growth and have a material impact on the profitability of the company
- External calamities
  - ✓ The Company operates a business that requires physical movement of goods via its network. Any external impediments like floods, earthquakes or strikes could severely hamper its ability to meet its service standards/KPIs, thereby leading to loss in revenue/customers or penalty
  - ✓ Non-availability of contract labor is also a risk for the company's operations, as it is highly dependent on contract labor
- Competitive intensity
  - ✓ Any increase in competitive intensity, especially in the e-commerce logistics space, could delay/impede profitability. Apart from pricing, the cost of running an asset-light business could also see upward revision, if competitors turn aggressive in partner compensation
- Significant dependence on third-party assets
  - ✓ The logistics facilities (sorting centers, gateways, warehouses, etc..) were leased from third parties; Expansion of Delhivery's operations would substantially depend on third-party suppliers. Irregularities in terms of lease agreements of various assets and renewal policies could impact the company's business.

# Thank you

# Disclaimer

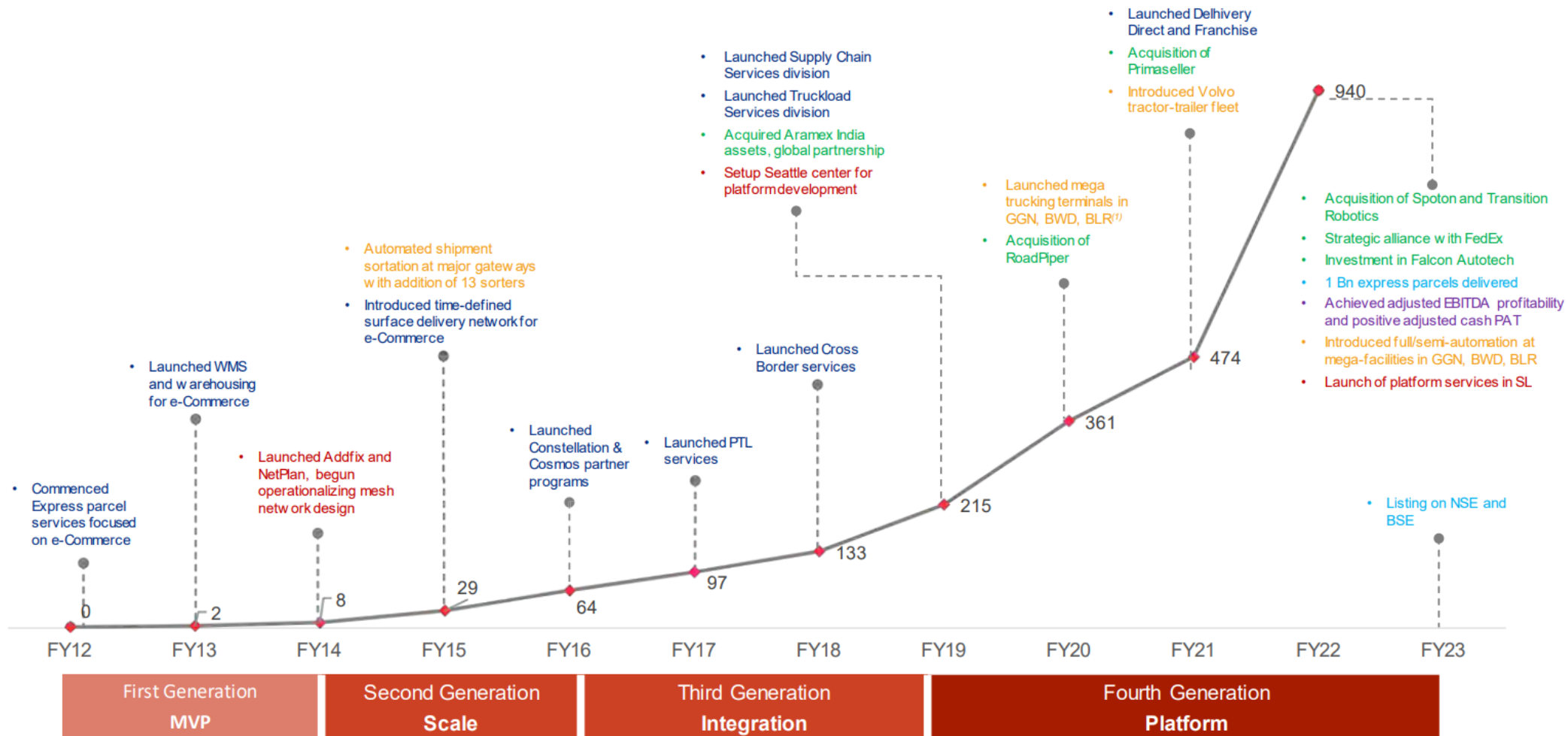
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# Annexure

**Chart 1: Evolution of Delhivery over the years, services ~24-25% of overall e-commerce volumes**



Note: Graph represents revenues in \$ Mn. For FY22, proforma revenues considered  
 (1) Gurugram, Bhiwandi, Bengaluru

# Automation at Hub



# Automation at Hub – Falcon Auto Tech

