

Aviral
Presents

A REPORT ON
**PART TRUCK
LOAD INDUSTRY
IN INDIA**

PROSPECTS AND CHALLENGES



Media Partner



Logistics Insider

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American roads are not good
because America is rich,
but America is rich because
American roads are good.

John F Kennedy

Foreword



Vikash Khatri, Founder, Aviral Consulting

Efficient logistics is a fundamental requirement for economic growth. The logistics sector in India has witnessed significant developments over the past few decades. It has attracted substantial investments in e-commerce logistics, express logistics, logistics infrastructure, and logistics technology.

According to our estimates, the domestic PTL market size amounts to approximately \$11 billion, excluding intra-city, surpassing the size of B2B express logistics. The rise of e-commerce has brought express logistics into the spotlight, overshadowing the traditional transportation of part loads. However, part truck transportation is not a recent concept, as it can be traced back to around 2400 BC in Egypt, according to recorded history. Wells Fargo is a well-established case of part truck load transportation dating back almost 170 years. Throughout the extensive journey of PTL, the basic principles have remained unchanged, with only a few changes in terminologies, such as the "Uberisation" of freight and the implementation of mesh networks. The philosophy behind PTL transportation revolves around the concept of shared economy, often referred to as "Uberisation" in contemporary terms.

While there are a few organized players with a national presence, approximately 95% of the PTL (non-express) market is still dominated by regional, state, or local players, who are mostly unorganized or semi-organized. Over time, the PTL industry has adapted to regulations, embraced technological advancements, and focused on skill development. However, many large PTL players have disappeared from the market in the past few decades. All national and regional players have a legacy of at least 30 years, and no new player has emerged and achieved nationwide success. Policy initiatives such as the implementation of the Goods and Services Tax (GST) and e-invoicing have provided a boost to organized players. Infrastructure improvements, the "Make in India" campaign, and evolving customer requirements have fueled the growth of the part load segment. Technology plays a crucial role in part-load transportation due to the nature of its operations. While only a few major players focused on digitisation in the early days, a significant segment of the industry has accelerated its adoption of technology in the past decade.

This report provides insights into the Indian Part Load Logistics (non-express) market, including its size, user industry segments, growth drivers, challenges, and more. I would like to express my deepest appreciation to my teammates, Mr. Vaibhav Kotkar and Mr. Palash Mungee, for their extensive work in primary research and compiling this report. I would also like to thank industry leaders who provided valuable insights into this PTL report. Special thanks are extended to Logistics Insider, Apptmyz Technologies, and V-trans India Limited for their cooperation in making this report possible.

Disclaimer

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CONTENTS

Abstract	5
1.0 Indian Logistic Industry Overview	6
2.0 Road Transportation	10
3.0 History of PTL	16
4.0 Operating Models of PTL	20
5.0 User Industry segment of PTL	26
6.0 Major markets of PTL	30
7.0 Market Size of PTL	40
8.0 Challenges of Part Trucking industry	50
9.0 Favorable Government Regulations & Policies	54
10.0 Technology Advancements in PTL	58
11.0 Future Outlook	60
Annexure: Major Players of Part Load Industry	64
Glossary & Methodology	70

ABSTRACT

This report is for the Part Truck Load transport industry, which is subset of road transport. Although in global terminology express logistics is part of CEP (Courier, Express & Parcel) segment, which covers shipments of low volume and weight. Physical services of CEP segment are linked to time sensitivity like overnight delivery or priority delivery or time specific delivery. On the other hand, Part Truck Load (PTL) refers to the transportation of product that does not require a full truckload. These smaller freight loads lead to consolidation of many separate shipments being transported on one truck. Consolidation is a common activity in both CEP and PTL.

In Indian context, many logistics service companies provide express services to larger shipments as well and global nomenclature of CEP and PTL does not hold same meaning. Considering the fact this report divides Express and Part Load based on time sensitivity. This report covers transportation of B2B shipments, which are less time sensitive / critical for transportation. So, the services provided by the companies like Safexpress, Gati, Blue Dart are out of scope of this report. There may be some overlapping positioning of few service providers between Road express and PTL for some companies, but the report has considered based on respondent's feedback captured during research about a specific service.

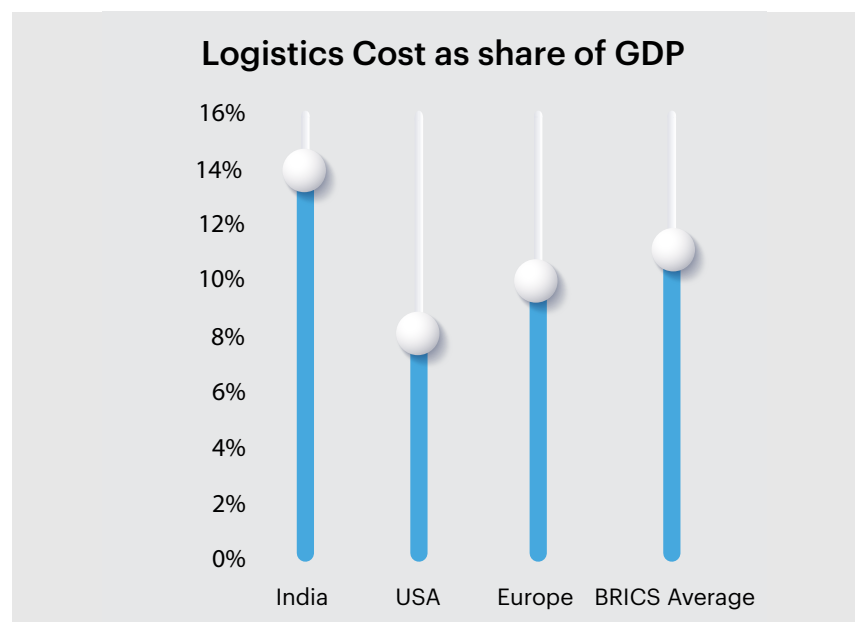
This report is based on primary research conducted with various industry experts through telephonic interview spread across geographical location in country, secondary research of domestic transportation sector, published annual reports and discussion with logistics service users.

1.0 INDIAN LOGISTICS INDUSTRY OVERVIEW



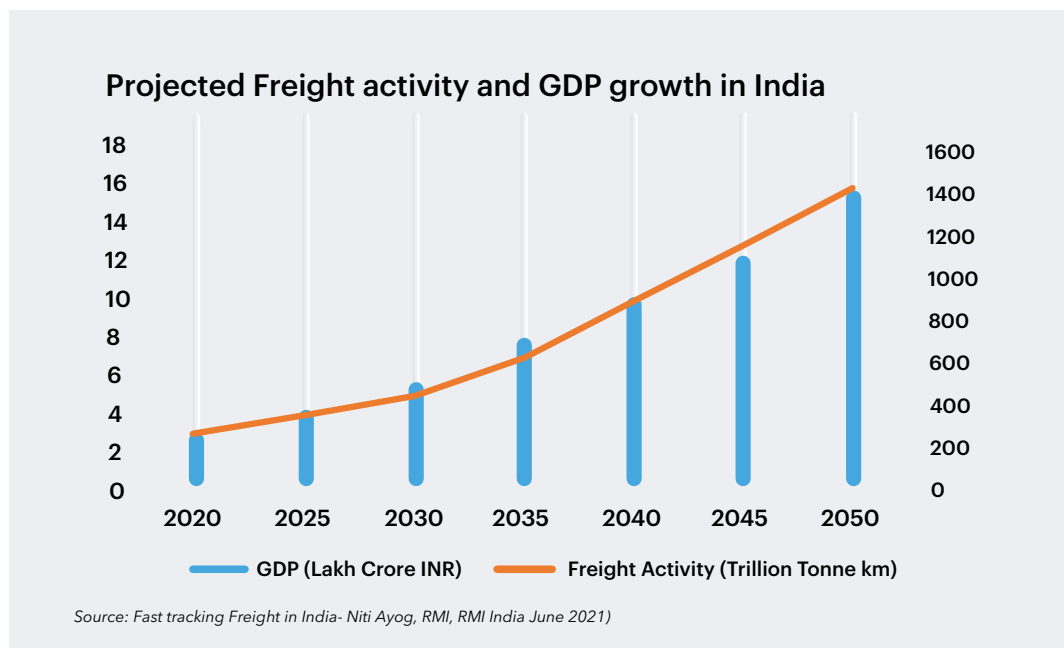
One of the crucial factors in positive growth of economic indicators is logistics. The logistics sector makes large macroeconomic contributions to the national economy through generating jobs, income, and foreign investment. Indian logistics industry is in evolving state with growth of infrastructure & technological developments. Mckinsey global institute in 2019, predicted that Indian logistic industry would expand at CAGR of 10% from \$200 in 2020 to \$320 in 2025. But the scenario has changed drastically in last 4 years due to pandemic and geopolitical disturbance. After these 2 years of slowdown caused due to Covid-19, market has shown the upward trend. FY 23 was a year without any impact due to COVID, but the geo political instability kept on hovering. On domestic front global factors were not having much of impact, but global logistics witnessed strong headwinds.

In the past, logistics & transportation industry (specially goods transportation) was not priority focus area of Indian Government, but the things have changed drastically in last one decade at policy making level as well. Multi directional reforms are on the way for efficient supply chain and reduce the cost of supply chain, which is hovering around 14% due to inefficiencies related to weak infrastructure, lack of intermodal & multimodal transport. Cost of supply chain is not only significantly higher compared to US and European market, but also higher than average of BRICS countries. For any economy, there is strong relation between development of economy & logistics cost. On a broader level, Higher the logistics & supply chain costs lower the level of economic development, as logistics cost decreases level of economic development improves.



Source: Fast tracking Freight in India- Niti Ayog, RMI, RMI India June 2021

In last decade, India’s logistics market grew exponentially due to multiple factors linked to economy, technology penetration, focus on manufacturing and infrastructure. Growth of ecommerce in the country pushed rise of demand of logistical services. Ecommerce & retail push is likely to continue in years to come and drive the growth of logistics in India. On the other hand, Govt’s “Make in India” initiative helped in boosting the demand for logistics services to deliver manufactured goods to markets. Logistic industry in India is expected to grow at an CAGR of 8-10%^ supported by rapidly evolving Ecommerce, Retail market growth & technological advancements. Some short-term growth rates will be low due to hindrances caused by inflation and other factors, but no major hurdle seems to come in between in longer term.



Under new National Logistics Policy (NLP), Government now aims to reduce Logistics Cost to 8% almost in line with developed countries, where it hovers between 8%-10%. One of the key objectives of PM Gati Shakti plan announced during union budget of 2022 is to improve efficiency in supply chain. As per plan, 7 engines to drive logistics efficiency are Logistic infrastructure, roadways, railways, ports, waterways, airports, mass transport. This enables better connectivity, technological advancements in logistics from warehousing to transport & value-added services, dedicated freight corridors. Which finally will lead to reduced cost of logistics.



2.0

ROAD TRANSPORTATION



Road transport offers a wide variety of shipping options, depending on the transported goods characteristics, time frame required and the logistics budget. Till mid of 19th century, the transport in India was in underdeveloped stage. Transport modes were confined to packhorse & bullock cart. The Britishers realized need to cheap and easy transport system to develop the industrial base, so that they can move raw materials for British industries. In this process, British Government introduced steamships and started roads infrastructure improvement. Work on the Grand Trunk Road from Calcutta of Delhi began in 1839 and was completed in 1850.

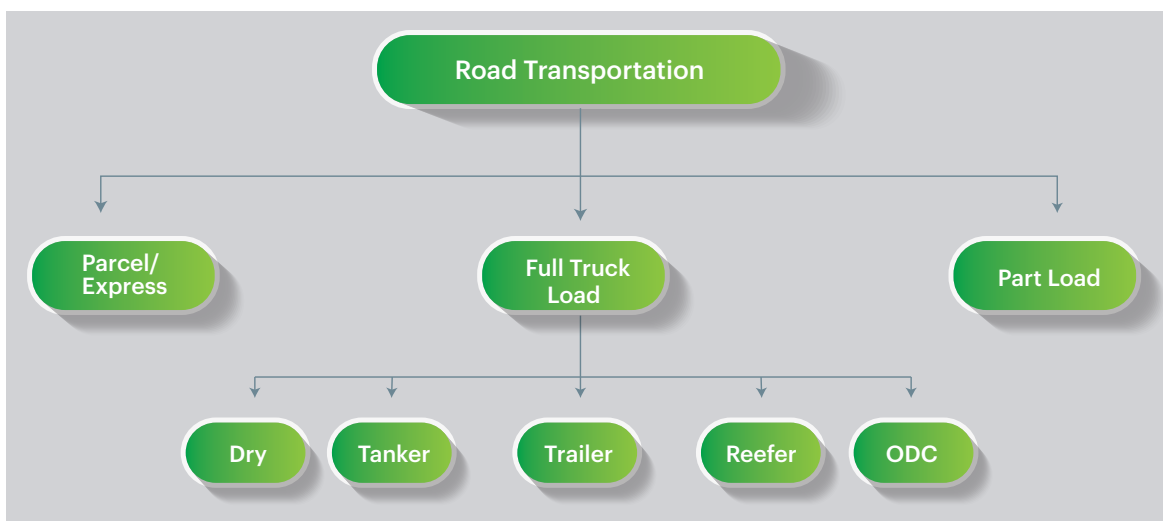
Efforts were made to link major cities and ports of the country by road network, but real improvement in transport started with introduction of Railways. In India the first railways line became operational between Bombay and Thane in 1853. By the end of 1869 more than 6000 kms of railways network became operational, in 1869 the government decided to build railways as state enterprises. By 1950 nearly 45000 kms of railways² had been built. By that time, the total road network in India was approximately 40000 Km. In next 20 years approx. 24000 Km of National Highways was added to Indian road network. As per MoRTH report, total length of roads in India as on 31 Mar 2019 was 63.73 Lakh Km.

The growth of the road transport has a high correlation with the growing number of goods vehicles over the years. The number of registered goods vehicles which was 82 thousand in 1951⁴ and 3.43 lakh in 1971³ increased to 13.56 lakh in 1991³ and further to 137 Lakh in 2019³. The share of registered goods vehicles, which had accounted for 26.8% of total registered vehicles in 1951³ declined to 4.65% in March 2019 due to sharp increase in other segments. Due to inherent advantages and strong user's preference for road transport, its share in goods movement has increased continuously in Indian markets. The economy which was rail dominated at time of independence has become road dominated. Currently more than 2/3rd volume of goods transport is via roads.[^] The small truck owners continue to dominate the sector; 3/4th of the truck owners own only up to 5 trucks. Given the ownership pattern, the industry does not enjoy the economies of scale. Although last decade has seen emergence of large fleet owners, still share of large fleet owners is not have majority of vehicles. Issues related to Covid posed a severe threat on small fleet owners for survival. In order to survive, many of the small truckers have now become service provider / vendor to large transport organizations. For Indian truckers who frequently struggle to acquire enough cargoes to make a living, it has become a valuable choice.

Based on constraints, road transport can be segmented in multiple ways as follow:

- Based on geography: Domestic Vs Cross Border
- Based on destination: Intra-city Vs Inter-city
- Based on cargo physical condition: Liquid, Gaseous, Dry
- Based on cargo characteristics: FTL, PTL, Parcel/express

For this research, we have taken segmentation based on cargo characteristics:



2.1 Full truck load (FTL)

Large shipments which can occupy the entire truck are ideal to be shipped by hiring entire truck. Shippers having such large shipments opt for FTL service which is comparatively faster & cheaper way of transportation, especially when multimodal facilities are not available or have cost effectiveness. This mode is faster due to the single loading & unloading point of shipper. This is relatively safe & secure from transit damage, as it opens only at the end points which means no handling in transit. The road transportation segment is dominated by FTL in terms of revenue and volumes, as most industries use FTL for bulk load transport. A larger share of Engineering goods, Castings, heavy machineries is transported through FTL. F&B, Consumer goods, Agricultural produce also has more share in this transportation segment.

2.2 Express Logistics

Express Industry is an important part of the overall CEP i.e., courier, express and parcel industry. Express has a higher price realization compared to PTL & FTL. Due to which express is not a preferred mode for low value goods. Express logistics services are bundled with door pick-up and door delivery. Auto, e-commerce, apparel & healthcare industries are major consumers of this service. The surface express industry even though accounts for approx. 3%¹ of the total surface transportation in India and is fastest growing surface transportation segment. Although CEP segment is defined for small parcels, part truck load segment which is time sensitive or time bound are also considered to be express. There is no as such defined academic definition of Express Part Load, the mentioned explanation is based on customary practice.

2.3 Part Truck Load (PTL)

Part Truck Load shipping (non-express) enables easy movement of goods from different customers through one truck. This helps multiple shippers to share their load and pay for the particular capacity occupied by their cargo, and the rest of the truck is filled by other shipments from various shippers. PTL transportation is cost effective but slower model than FTL for smaller loads. In case of PTL, transit time consolidation period & connectivity of various points gets added in travel time. PTL carries multiple shipments from various shippers and locations. PTL is comparatively complex operation, as there are multiple shipments having multiple loading & unloading points along with added risk of carrying multiple type of loads in consolidated mode. Shippers with small shipments like medium & small-scale industries, are most relevant audience of this segment. Mostly dense cargo or low value materials or low handling sensitivity loads are transported through PTL, as its per unit cost of transportation is very low compared to Express. Post GST some share of PTL has increased due to abolition of state specific constraints and shippers can keep sending material as per requirement, instead of waiting to send in FTL mode.

2.4 Difference in PTL Vs FTL & Express

Normally a smaller cargo load, which is less than a full truck load, given for transportation is referred to as a part truck load (PTL). It can vary significantly from few KG to few tons. Most of these loads are less sensitive to transit times. On the other hand, the express industry carries similar sort of cargo load / parcels having relatively less weight per shipment with higher time sensitivity. As a practice, it is considered that Express is relatively premium service in terms of cost, transit and service quality. A shipper selects the service option (FTL or PTL or Express) based on multiple factors. Trend in transportation clearly shows the selection of service is having strong correlation with characteristics of shipped material. In the table given below, we have captured general practice adopted by shippers in choosing any transport service for a specific product category.

INDUSTRY VERTICAL	PTL	EXPRESS
Pharmaceuticals & Healthcare	Finished Goods Stock Transfer, Packaging material, Secondary Distribution, Surgical products	API, Physician samples & Gift, Time sensitive stock transfer, Clinical samples, Medical devices, Temperature sensitive products

INDUSTRY VERTICAL	PTL	EXPRESS
Textile	Cloth, Yarn	Apparel, Readymade garments
Fashion & Lifestyle	Raw Material	Finished goods
Automobiles	OEM stock transfer	Spares, VOR spares
Engineering products	Casting products, Heavy machinery, Industrial products, Rubber products	High end engineering products, Pneumatic parts
Electrical & electronics	Heavy Appliances, Durables, Home appliances	Electronics (i.e: Laptop, Mobile), Home appliances, IT peripherals
e-commerce	N/A	Vendor to Distribution Centre (DC), Return to vendor, DC to DC transfer
FMCG	Raw material, Packaging material, FG stock transfer, Secondary distribution	High value FMCG products (i.e: cosmetics), Wellness products
Printing & stationary	Pre-printed stationery, paper, writing material, books	Books, Stationery & accessories

INDUSTRY VERTICAL	PTL	EXPRESS
Chemical	Bulk and Hazchem	Speciality chemical (non-hazardous)
Agriculture	Seeds, Agri equipment, Processed produce	Equipment spares
Art & sculpture	N/A	Art & sculpture products



3.0 HISTORY OF PTL



First recorded movement of goods is in Egypt while making Great Pyramids. They used many methods of transportation to carry their construction goods from long distances. In past era delivering parcels wasn't an easy task as we see now a days. The system of delivering mails was dependent on animals, birds or human beings' physical movement. Horses, Camels, Bullock carts, Dogs etc were primary source to send parcels and important message. Apart from transportation, the first organized courier service has been recorded in Egypt around 2400BC according to few ancient documented records. In this courier services, runners carried carved stones as the message from one point to another.

According to modern history of part load transportation, first established case is from United States of America. During 1852 Wells Fargo started to handle banking & express business promoted by California Gold Rush. Transportation used to be through stagecoach, which used to carry passengers & light packages. "Butterfield overland stagecoach services" was another player in the transport business which failed after some time. This led to monopoly of Wells Fargo in overland services, until transcontinental railway line completed. In 19th century, Pony expresses also made an attempt to deliver mail through horse mounted riders, which failed after short existence due to invention of telegraph. After 1869, package delivery became faster & cheaper via rail. In 1907, two teenagers Claude Ryan & Jim Cassey started American Messenger Company at Seattle to deliver mail which eventually became UPS, one of the largest parcel delivery service companies in world. Wells Fargo the express carrier disappeared over period of time, in 1918 company's domestic operations were taken over by American Railway Express Company.

On the other part of world, an UK entrepreneur Pryce Jones formed first mail order company where people could order by mail & products were delivered via railway. This model revolutionized the way of selling products. Pryce created first mail order catalogues in 1861 - which consisted of woolen goods. In the later stage, he promised next day delivery almost throughout country, which became founding stone for Express parcel service on one hand and e-commerce (mail commerce) on other hand. With the industrialization and improvement in vehicles, goods started moving via trucks or railroad. Over a period of time industry of part load shaped up and differentiation between Courier Express & Parcel (CEP) and Part Load (PTL) emerged. CEP segment is slightly different from PTL. Wherein PTL (Part Truck load) is a similar to the parcels with relatively heavy load and lesser time sensitivity.

3.1 PTL in India

In the journey of last seven decades of growth in road transport, Part-load transportation became a viable business model for many small to medium fleet owners / transporters. Part-load trucking has a lesser tonnage than a full truck load (FTL) and vehicles moves once consolidation of shipments takes place. In part load trucking business, transporters hold their cargo until a full load can be formed. The transporter picks up partial cargoes from various locations within a defined geography and deliver them to the destined customer. For the service provided by part-load transporter, shipper pays as per volume / weight of the shipment. Normally, door pick-up and door delivery services are considered to be value-added chargeable services in PTL.

The growth of PTL had a few embedded challenges related to the security & safety of consignments. In the early days, shippers looking for transportation had some restrictions especially in PTL, which a carrier or service provider had to fulfill for safety of transaction & security of material. In order to make transactions secure & avoid the loss of material, transport industry embraced the concept of IBA (Indian Banking association) approved transportation. In this mechanism, there were some criteria for the transporter to carry out transactions. In a way, it became one of the first symptom for part-load taking an organized industry shape. In this system, bank used to be the intermediate or the agent who becomes custodian of documents related to transaction. The Lorry Receipt (LR) & dispatch (loading receipt) copy created at the time of booking / loading is used as POD (Proof of delivery), which is acknowledgement of delivery with sign & stamp of consignor. This signed LR copy / POD becomes the proof of completion of the transaction, which transporters need to show at the bank to release their service charges from shippers account for which bank charges some amount for being mediator. But nowadays due to technological interface & ease of payment the hard copy POD is moving away, but few enterprises still follow this mode of transaction.

3.2 Advantages of PTL

PTL has been a backbone of small and medium enterprises since evolution. It has some inherent advantage as follow:

- **Wider reach**
PTL industry provides wider reach to shipper. Reach of PTL segment is higher than express segment as many players have network even in tier 3 and tier 4 towns
- **Cost effective**
Shipments from various shippers are consolidated, hence sharing of service charges of transporter depends as per space utilization. Shippers are not required to engage full capacity for transportation. On the other hand, this segment of transportation is more cost effective than express logistics.
- **Consolidation benefits**
Shipments are consolidated at transporter end, which reduces the number of vehicles used for line haul. It leads to less fuel consumption and carbon emission. PTL industry is a good example of a shared economy as well to optimize cost.

- **Flexibility**

As demand for service varies from low to high or high to low shipper can scale up or down their shipping requirement without investing in fixed capacity.

3.3 Disadvantages of PTL

Some of the disadvantages of PTL are as follow:

- **Time sensitivity**

PTL network design are based on consolidation model, so it works very well in the high-volume lanes. But in the case of low volume lanes the time of transit increases sharply.

- **Handling quality**

Due to the low-cost structure, the quality of infrastructure of PTL remain weaker than express network. Sometimes, poor infrastructure impacts negatively on handling quality.

- **Sensitive cargo**

In PTL network loads from multiple industries flows in single network and in such a network, sensitive cargo may create an adverse impact on other products.

3.4 Bridging Gap with Express Logistics

Over period of time, the gap between PTL players and time-sensitive express players is narrowing. Gaps have reduced in terms of pricing and service levels. Both are trying to win business from other segments, but Express logistics has shown an edge over PTL in penetrating to other domains due to better infrastructure, technology and access to capital. In this competitive fight, ultra-low-cost PTL players (i.e.: within state distribution) have not been impacted much so far due to significant difference in pricing. Growth of other PTL segments has witnessed an impact from narrowing bridge between PTL and Express.

However, this industry is also preparing to see a paradigm transition as a result of rapidly evolving consumer behavior, modern trade, and digitization. The transition of this industry will take place more quickly due to digitization and customers pressure to improve.

4.0

OPERATING MODELS OF PTL



PTL players operate on Hub & spoke model (national & regional players) in order to minimize time & cost to deliver shipments. This arrangement shortens the distance as shipments move through strategically located hubs. The model is quite flexible in the PTL segment, depending on the volumes, load pattern on route, consolidation scope in order to optimize cost & time. In the Hub & spoke model, Hub is a consolidation point in a particular location / area, which connects the linehaul. Spoke locations are the branches, where the shipments are collected from or delivered to. The hub is like a center where all the spoke terminals are connected & the other end is connected to delivery or pickup locations/ branch. Hubs are also having their pickup & delivery catchment areas, from where first and last mile activity of that catchment area takes place apart from linehaul transshipment.

A shipment collected at a branch is connected to the respective hub via a feeder vehicle. Shipments from various locations within same region are consolidated & sorted at the hub as per destination and loaded into linehaul vehicle. Once the line haul vehicle reaches destination hub, where shipments from different hubs arrive, sorting is done as per delivery location. Next leg adopts similar pattern of branch connectivity via feeder vehicle or direct last mile delivery. Large players operate on this model, while some smaller player operate on point-to-point connectivity or consolidation on specific lanes. Hub and spoke model give operational flexibility and accuracy in handling of larger volumes, apart from quick consolidation.

Smaller players having vanilla or less complex model, operate on slightly different operating model. In their network, when load for a particular route or point is enough to fill the linehaul vehicle, the vehicle departs from origin. In many cases of bulk, the pickup is done by linehaul vehicle from customer premises, which directly connects the route and leads to saving on account of time and cost of loading-unloading at branch & hub. First and last mile services of these small players depend on the market vehicle for pickup and delivery. As PTL segment is dominated by unorganized and fragmented players with low gross margin, capacity utilization become critical element for the service providers. Even in certain cases, vehicle waits for load for days and in spite of the wait for one to two days, if load is lesser than the capacity of vehicle, other touch points are allowed in same vehicle to avoid weight loss. This process is largely manual and degree of automation is very low.

The PTL players primary service offering revolves around godown pickup & godwon delivery, so cost of pickup & delivery remains almost zero. Over

a period of time this model is changing, wherein customers of PTL services are also insisting on door pick up and door delivery. In the commercial structure of PTL, these doors pick up and door delivery are like chargeable value-added services. In case of bulk load such services are offered as freebee to customers.

In PTL, regional players & other unorganized players also work with agents to get load from the market for return load which costs them agency or brokerage charges. These co-loaders or brokers have good connect in the particular location to fill the vehicle along with few on ground support in order organize pickup & delivery vehicle for door services. While large national players rely mostly on their own branch network.

The Fleet owning pattern also varies between companies of this segment. Most National PTL logistics players have attached vehicles. Such players deploy market vehicles only on the trade lanes having one way load. On comparing one way cost, market vehicles are relatively costlier compared to the attached vehicles, but it proves cost effective when they are engaged for one way compared to round trip journey of attached vehicle. On the other hand, very few national players go with owned vehicle strategy due to complexity of fleet operations at national level and possibilities of cost leakages. In the case of smaller PTL companies, owned vehicle strategy is largely adopted. As per few industry experts, vehicle mix ratio for national PTL players hovers at own vs attached vs market vehicles at 10:60:30^.

4.1 Subsegment of PTL Operating Model

Indian Part Load Industry is highly unorganized, Due to its unorganized characteristics, it has evolved in multiple subsegments. Players, operating model, network, infrastructure, degree of tech adoption etc of these subsegments also varies a lot. Although there is not much difference in product features and deliverable of all subsegments of PTL are almost same, still there is difference in approaches.

- **National PTL**
- **Regional PTL**
- **Lane specific PTL**
- **Point to Point PTL**
- **Within state PTL**

4.1.1 National PTL

National PTL players are having established network to cover larger geography, which can deliver shipments in every part of the country. These players have substantial direct pin-code reach. Players of this segment are organized players. Being an organized player, their compliances are much better compared to any other sub-segments of PTL. On the strength of compliance and network, they also pose competition for express players.

All part-load national players have strong legacy in transport business. Most of the companies have three to six decades of existence in this business. These players started their journey with single lane and over period of time expanded their network all length and breadth of country. None of the PTL players seem to have achieved success in this segment in a quick time like

express players, where we see that some of the major players have emerged in decade.

With strong network & good volumes, few national players are able to match transit time of express logistics. National players largely operate on the hub & spoke model and defined network path to move the shipment from origin to destination. But their network flow is not as rigid as express logistics. Cost of operation of national players is relatively higher than other subsegments of part load industry due to their reach, processes and better material handling. Accordingly, these companies charge slightly more for the services compared to regional or point to point players. Most of the players in this segment are part of organized segment of transport industry. Few prominent players of the segment include: VRL, V-trans, Transport Corporation of India, Associated Road carriers etc. In past some of express players have made unsuccessful attempt to launch low cost non time sensitive services.

4.1.2 Regional Players

These players have good penetration of network in regional geographical limits. Some of the players are having presence in more than one region, but the contribution of other region in overall pie remains very limited and are known for their specific regional presence only. Operating model of these player is also driven by the hub and spoke model, but complete adherence to such model does not take place. The cost structure of regional players is leaner than national players. In order to remain competitive in terms of cost, their maximum thrust remain on network capacity utilization and low overheads. The pressure on capacity utilization of line haul vehicles leads to lower adherence to standard hub and spoke model. When load of particular location is more for a specific lane, the linehaul vehicle is deployed from that location or even from client's premises. Similarly at delivery end based on load pattern termination point of linehaul is changed. This practice helps in containing direct cost by eliminating feeder vehicle and loading / unloading cost. Unlike national players, regional players have lesser cushion in transit time due to relatively shorter legs, which leads to more dynamic network or low adherence to hub and spoke. In terms of compliances these players are weaker than national player. Over period of time most of regional player have adopted basic digitization through SaaS based products. Even few of the player have their proprietary inhouse developed software with significant limitations. Trader & SME segment mostly deals with regional players due to cost differences and ease of connecting with such players. In specific geographies, regional players are faster & low cost compared to national players. Some of the regional players of part load are Nitco, Jaipur Golden, Avinash Cargo and SRMT.

4.1.3 Within state players

These players have state specific network only. Their network and modus operandi are also different from earlier two models. The expertise of these players remains on distribution of goods from major trading / CFA town location to various parts of state. These players regularly deliver shipments to fixed consignees and enjoys good connect with them. They plan route according to the load & location; their operating network is designed for distribution from single node to multiple points within state. The degree of customization of operations as per customer requirement is very high. These players operate vehicles in multiple permutations like on milk run, scheduled route, customer specific routes etc. The pricing of these players remains ultra-low and pricing mechanism differs from other sub segments. Many a time

pricing model differs as per requirement i.e, per piece basis or lot basis or per kg basis. Largest competition for this segment is captive fleet network of various CFAs.

Adoption of technology is very limited with this segment, some of the player offer track and trace through their transport management system. But in most of the cases, it become less relevant and travel distances are very low and delivery TAT for most of the locations remain one day. The nature of their buyers is also less attentive to such tech requirements. Recently some of the large product organizations have pushed their for having track and trace in distribution business, which has pushed adoption of tech to a small quantum. Over period of time some of prominent names have emerged in every state for within state part load distribution, but their share in overall pie is miniscule.

4.1.4 Lane Players

The model of these players is quite similar to regional players but limited to a specific route. Such part load players operate only on one or two routes and covers all major load originating and terminating locations on the that route. i.e, a lane player operation on Delhi-Bombay route has presence and services at Vapi, Surat, Baroda, Ahmedabad, Jaipur and neighboring towns. These operators are majorly fleet owners and rarely hire vehicle from market. These players have no concept of hub and spoke, their nodes on route of vehicle acts as first mile and last mile consolidation point. Some of the players even don't offer door delivery or door pickup as add-on service, instead on demand basis they connect some local tempo operator with consignor / consignee to deliver / pick up products. Ultra-low-cost model in overall network help them to price accordingly.

4.1.5 Point-to-Point Players

We can call this segment as bottom of pyramid of part load operating model with least entry barrier, where in a fleet owner operates between two nodes only. Individual fleet owner having connections and capability to generate specific load between two points start such services. Most of the business is generated on personalized connect, wherein the fleet owner supervises most of the activities. In certain cases, such operators are faster than any other player due to their focused approach and no intermediate linkage or halt between nodal points. Overheads of these operators are negligible, so their cost is lowest in the part load industry. Sometimes its comparable with unit rates of transportation of FTL. There are numerous point-to-point players which cumulatively contribute higher load on specific lane than larger players in part load shipment.



5.0 USER INDUSTRY SEGMENT OF PTL



Customer segments for part truck load are not limited to specific industry verticals. Almost all of the industries use part-load transportation to fulfill their transport need. Transportation cost of a product has a direct impact on its final product cost. The pressure of transportation cost increases when final product is having lower value per unit. In such cases PTL industry become a boost especially when shipping quantum is between a few Kg to few tons. Many a shipper having high value goods avoids use of PTL on account of their concern about safety and handling of material. It's not so that material travelling on PTL network is unsafe or not secure, instead the concern is more associated with nature of other parcels moving on same network and safeguarding measures taken to avoid risks. As PTL business model revolves on high volume transportation with optimally low cost, due to which measures leading to increase costs are avoided in operations. While other segment of road logistics like express logistics are more apt for such high value material transportation. Express logistics is perceived to be more organized, safe, time sensitive compared to PTL. Major industry segments using PTL services include Automotive, Manufacturing, Chemical, Oil, textile. Some of the shipments that are avoided by express players due to characteristics of material are transported via PTL

INDUSTRY	PRODUCT SEGMENTS
Engineering	Casting, Valve, Metal, Machine shops, Gear box, Fabrication, Scrap, Foundry, Bearing, Forging, Hardware etc.
Pharma & Surgical	Surgical cloths, Pharmaceutical Products, Raw material, Surgical equipment etc.
Automotive	Ancillary, Vehicle, Engines, Spares, OEM parts
Packaging	All sorts of packaging materials like cardboard, poly bags, tapes etc.

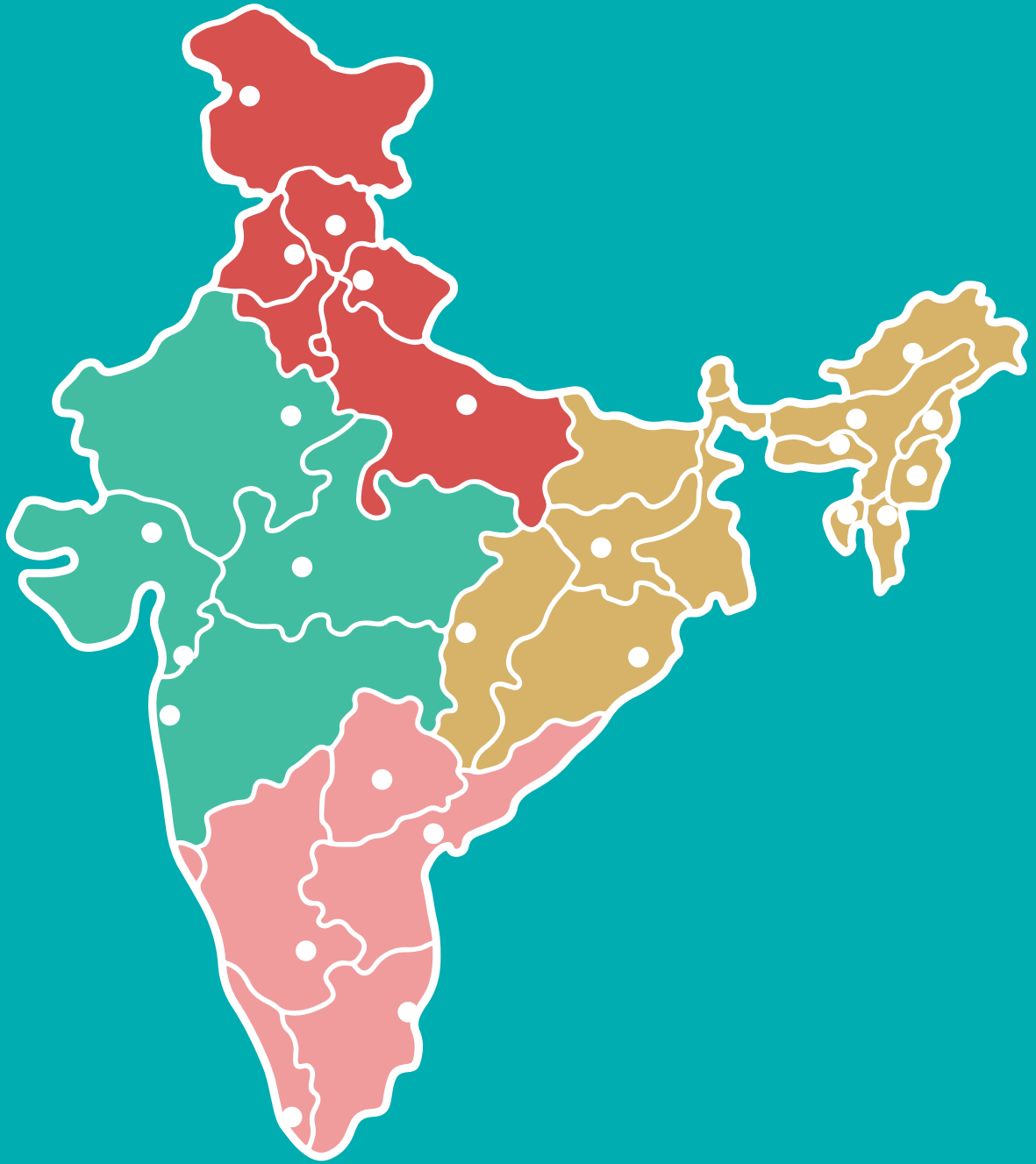
INDUSTRY	PRODUCT SEGMENTS
Textile	Towel, Cloths, Bedsheets, Readymade garment, Hosiery, Embroidery items, Handloom, Yarn, Net, blankets etc.
Chemicals	Pesticides, Paints, Lubricants, Dyes, Fragrance etc.
IT	Cables, Cabinets, Accessories etc.
FMCG	Dairy, Incense stick, Packaged Food, Stationery goods, Consumer goods etc.
FMCD	Electronic goods, White goods, Appliances etc.
Agriculture	Coffee, Black Pepper, Cashew, Coconut husk, Almond, Spices, Fertilizers, Seeds, Sugar, Gulland, Menthol, Cotton bails, Ayurvedic herbs, Oil seeds, Jeera, Rice, Bidi, Tea Leaf etc.
Food products	Jaggery, Chocolate, Sea food, Processed food, Pickle, Papad etc.
Footwear	All types of foot wears, raw material of footwear industry

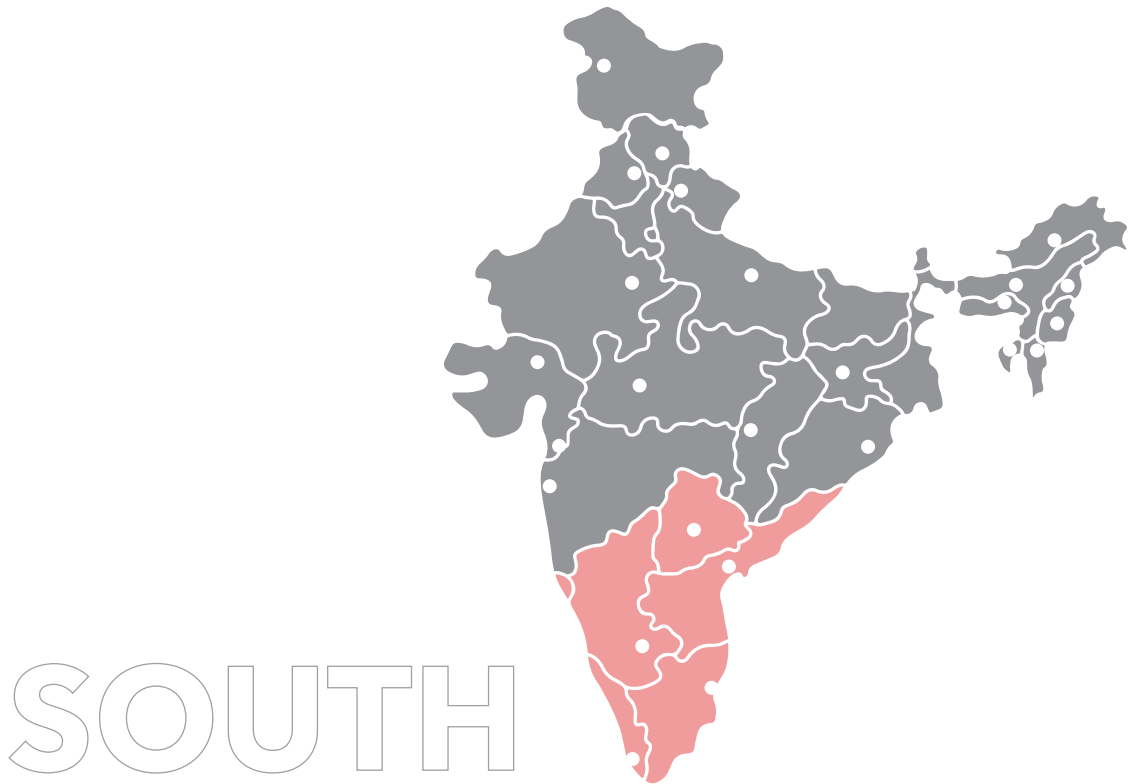
INDUSTRY	PRODUCT SEGMENTS
Manufacturing	Rubber, Steel, Pumps, Utensils, Tools, Cable, Lightings, Electrical component, Cylinders, Brass products, Flanges, Glass, Agricultural pipes, Plastics, Locks, Hardware, Insulator, Nut bolt etc.
Publication	Printing Material, Books
Lifestyle & apparel	Leather, Saree, Bangles, Perfumes, Bags, Carpets etc.
Others	Handicraft, Furniture, Wooden Items, White Clay, Silica Sand, Lime Clay, Gypsum, Putti, Building Material, Power & Construction Equipment, Ceramic, Sanitary Ware, Stone, Soapstone, Marbles, Ore, Foot Mate, Fireworks, Rubber Gloves, Terracotta, Soft Toys, Silica Gel, Explosives, Transformer, Crockery, Toys, Camphor, Kites, Manjha (Kite thread), Sports Goods, Scissors, Offset, Plywood.

6.0

MAJOR MARKETS OF PTL







KARNATAKA

- o Bangalore: Peenya, Bommasandra, Hosur, Tumkur, Jigani, Whitefield
 - » Engineering goods, Auto & auto accessories, food products, chemical, Apparel, Agri produce, Incense stick, e-commerce.
- o Mysore
 - » Agri produce (Cashew, Almond, Black Pepper)
- o Tumkur
 - » Food products, Agri produce.
- o Chikkamagaluru
 - » Coffee, Black pepper
- o Bellary
 - » Steel, Casting, Pesticides, Fertilizers

- o Davangere
 - » Pharma, Textile
- o Hubli, Belgaum
 - » Textile, Pesticides, Industrial Valve, Pharma, Agri Produce, FMCG, Casting, Chemical & paint.

TAMIL NADU

- o Chennai: Ambattur, Sri city, Redhill, Gummdipoondi, Guindy, Broadway, Rajiv Gandhi Nagar, Maraimalai Nagar
 - » Auto, Auto OEMs, CFA, FMCG, food, metal, chemical, engineering, food, electronics
- o Pondicherry
 - » Auto, Engineering, Chemical, lifestyle

- o Ranipet
 - » Auto, chemical, leather, engineering
- o Coimbatore
 - » Pump, Auto, Engineering,
- o Tiruppur, Karur & Erode
 - » Hosiery, Textile, Mosquito net
- o Salem
 - » Iron / Engineering products, Textile, Silver, Agro / Food products
- o Madurai
 - » Textile, Aluminum products, Food processing & Rubber products
- o Nagercoil
 - » Rubber & Rubber products
- o Sivakasi & Rajapalayam
 - » Stationery, Fireworks, Surgical Clothes

TELANGANA

- o Greater Hyderabad
 - » Pharmaceuticals, Agri products, Auto & Engineering

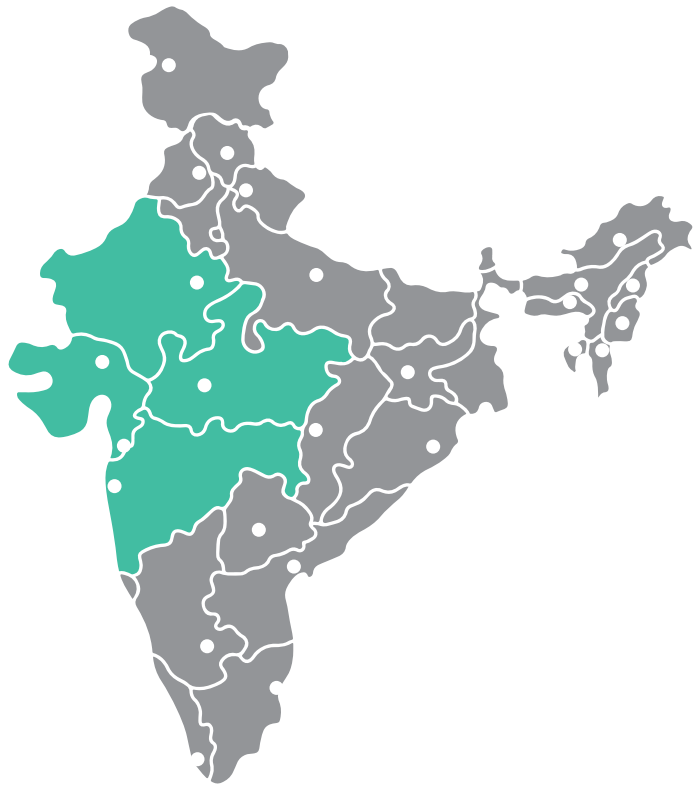
ANDHRA PRADESH

- o Vizag
 - » Pharmaceuticals, Paper, Chemicals
- o Palasa
 - » Cashew
- o Guntur, Vijayawada
 - » Fish feed, Seed, Chilli
- o Kakinada, Gangavaram & Krishnapatnam
 - » Auto spares, Casting, Fats & Oil

KERALA

- o Trivandrum
 - » Ayurvedic & Herbal products, Spices, Agro & processed produce
- o Cochin & Kottayam
 - » Agro products, Food processing, Rubber
- o Kolam
 - » Cashew nut, Agro & processed produce

WEST



GREATER MUMBAI

- o Bhiwandi including micro markets of Vadpe, Dapoda, Nashik Highway, Wada, Shahapur
 - » FMCG, Pharmaceuticals & Medical devices, Apparel, 3PL logistics, Chemical, Lubricant, Electronics, e-commerce.
- o Talaja, Kalamboli & Panvel
 - » Chemicals, steel & 3PL logistics (EXIM).
- o Ambernath, Kalyan, Badlapur
 - » Chemical, pharmaceuticals, lubricants, Packaging Material, SME, Food products, Apparel.
- o Khopoli, Patalganga, Rasayani
 - » Chemical, Pharmaceuticals & Engineering goods.
- o Rabale, Turbhe, Kopar, Mahape
 - » Engineering, Electronics, IT peripherals, Spices, Textile
- o Vasai Virar & Kaman
 - » Electrical, Appliances, Engineering, Auto, IT peripherals, Chemical, Food products, Electronics, SME/ traders
- o Palghar, Dahanu
 - » Engineering, Rubber products, Textile, Steel
- o Thane
 - » Engineering, Packaging, Steel utensils, Fire and Safety equipment
- o South Mumbai
 - » Steel, Engineering, Wholesalers / Traders
- o Rest of Mumbai (North, East, Central)

- » Assorted from SME (Across verticals)

MAHARASHTRA

- o Pune including micro markets of Pimpri, Chinchwad, Chakan, Nigdi, Wagholi, Phulgaon, Ranjangaon Road, Sanaswadi, Phursungi, Pirangut
 - » Auto & auto ancillary, Engineering, Electronics, White goods, FMCG, Processed Food products, Chemical, 3PL, Traders
- o Shirwal, Khed Shivapur, Kurkumbh, Baramati
 - » Auto, Engineering, Dairy, Pharma
- o Ahmednagar & Ranjangaon
 - » Pharma, Lighting, Electrical, Electronics
- o Aurangabad & Waluj
 - » Auto, Pharma, Food products, Seed, Packaging
- o Nashik & Sinnar
 - » Consumer durable, Engineering, Auto, Food products, Chemical, steel
- o Satara, Karad, Sangli
 - » Casting, Engineering, Food products, Pesticides, Musical instruments
- o Kolhapur, Shirol, Kagal, Udyam Nagar
 - » Casting parts, Pumps, Steel, Engine, Garment
- o Solapur
 - » Textile, Towel, Bedsheet
- o Nagpur
 - » Iron & steel, Yarn, Textile, Auto & Auto ancillaries

- o Goa: Mapusa, Verna, Ponda
 - » Steel, Sea food, Pharma, Packaging material

GUJARAT

- o Ahmedabad including micro markets of Chhatral, Changodar, Sanand, Santej, Mehsana, Rakhial
 - » Pharmaceuticals, Textile, FMCG, Machine parts, Food products, Plastic products, Electrical equipment, Chemicals, cables, foundry, Traders
- o Morbi
 - » Ceramic / Sanitary ware, construction equipment, Incense stick, Electronics
- o Gandhi Dham, Bhuj, Kandla, Mundra
 - » Cotton bails, Cylinders, Wood Works, Chemicals, White Clay, Handicraft, Gypsum, EXIM bulk
- o Rajkot
 - » Engineering, Casting, Silver,
- o Jamnagar
 - » Brass products
- o Amreli, Junagarh, Veraval
 - » Casting, Fishnet
- o Bhavnagar
 - » Scarf, Agri produce, Ayurvedic products, Silica
- o Vapi, Silvassa, Daman
 - » Chemical, Pharma, Plastic products, Cable, Yarn, Engineering, textile
- o Ankleshwar, Bharuch
 - » Chemical, Dyes, Pharma API
- o Surat including micro market of

Sachin, Navsari

- » Textile, Pharma and Engineering

- o Baroda including micro market of Padra, Halol, Kalol & VV Nagar

- » Engineering, Chemical, Plastic products, auto, electrical

MADHYA PRADESH

- o Indore & Pithampur

- » Auto & Engineering, Pharma, Readymade garments, Packaged food

- o Jabalpur, Satna & Rewa

- » Readymade garments, Limestone,

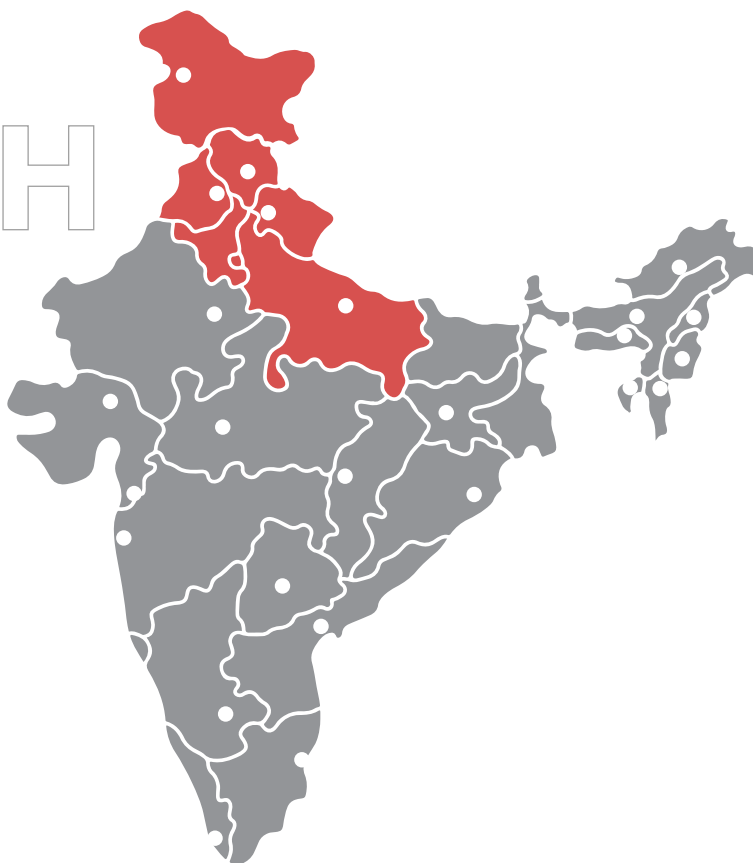
- o Bhopal & Mandi Deep

- » Pharma, Electrical, Engineering, Textile

- o Raipur

- » Steel, Agri produce, Ores.

NORTH



DELHI

- o South Delhi

- » Engineering tools, Food product, Packaging, Chemical, Electronics

- o East Delhi

- » Publishing, Incense sticks, Engineering, Shoes, Apparel, Textile

- o Central Delhi

- » Engineering, Footwear, Furniture, Chemical, FMCG, Pharmaceuticals,

- Seed, Electrical, Wholesale market
- o West Delhi
 - » Pharma, Appliances, FMCG, Engineering, Plastic, Cable, Electrical, SME- Manufacturing, 3PL
- o North Delhi including micro market of Sonipat.
 - » Engineering, Footwear, Auto spares, Industrial products, Electrical, Durables, Medical devices, Chemical, Packaging

HARYANA

- o Faridabad, Palwal, Ballabhgarh
 - » Heavy Engineering, Casting, Auto parts, electrical, Construction equipment, Metal products
- o Gurgaon, Manesar, Dharuhera
 - » Auto & auto ancillary, Textile, 3PL, e-commerce, Electronics
- o Panipat, Karnal, Gharonda, Kurukshetra
 - » Footwear, Textile
- o Ambala including micro markets of Yamuna Nagar
 - » Scientific equipment, Pharmaceuticals, Plywood, Engineering
- o Rohtak, Bahadurgarh
 - » Footwear, Sanitary wear,
- o Panchkula, Dera bassi, Mohali
 - » Pesticides, Seeds, Pharma, Textile, Engineering, Utensils, Plywood
- o Kaithal, Jind
 - » Handloom, Pharma, Food products, Iron GI products, Footwear, Agri
- o Hisar

- » Pesticides, Seeds, Iron GI products
- » Rajasthan

RAJASTHAN

- o Jaipur
 - » Textile, Handicraft, Auto, Agri, food, textile, bedsheet, saree, bangles, handicraft, Agri tools
- o Bhiwadi, Neemrana, Alwar
 - » Auto, Agri, Electrical, Packaged Food products, Industrial products
- o Udaipur, Bhilwara
 - » Stones, Handicraft, Textile
- o Ajmer, Kishangarh, Ratangarh
 - » Food products, Foot mat, Stones, Handicraft, Wooden furniture
- o Bikaner
 - » Food, Textile
- o Jodhpur, Nagaur
 - » Handicraft, Tools, spices

UTTAR PRADESH

- o Lucknow, Faizabad
 - » Embroidery, Cloth, CFA, Auto, Herbal products, Jaggery, Food products, Paper
- o Kanpur, Kannauj
 - » Leather, Engineering, Auto, Utensils, Perfumes
- o Varanasi
 - » Clothes, Saree, Rail engineering, Plastic products, Foil
- o Allahabad, Bhadohi, Mirzapur, Mau
 - » Publication, Engineering, Carpet, Saree
- o Sonbhadra

- » Aluminum products, Chemicals
- o Bareilly, Rampur, Moradabad, Chandausi
 - » Kite & Manjha, Menthol, Camphor, Brass
- o Gajraula
 - » Food, Pharma, Chemical
- o Agra
 - » Leather, Machinery, Engineering, Surgical products, Handicraft, Books, Agri equipment
- o Firozabad
 - » Glassware, Brass ware
- o Aligarh
 - » Hardware, Locks, Surgical products
- o Ghaziabad & Noida
 - » Engineering, Pharma, Forging, Appliances, Ceramics, Garment, Consumer Electronics, Electrical, Toys, Auto, Agro products
- o Hapur, Pilkhuwa & Khurja
 - » Handloom, Pottery
- o Meerut
 - » Cloth, Sports Goods, Pharma, tools, Agri equipment, Machines, Agro products

UTTARANCHAL

- o Roorkee & Haridwar
 - » Pharma, Engineering, Auto, FMCG, Electrical
- o Dehradun & Selakui
 - » Consumer Electronics, Consumer durables, Pharmaceuticals

- o Udham Singh Nagar & Haldwani
 - » Auto and auto ancillary, Engineering, FMCG
- o Kashipur & Sitarganj
 - » Plastic, Paper, Chemical, Plywood, Engineering, Food products, FMCG

HIMANCHAL PRADESH

- o Baddi, Nalagarh
 - » Pharma, Appliances, Electrical equipment, Packaging, FMCG
- o Parwanoo, Solan
 - » FMCG, Food products, Pharma
- o Kala Amb, Ponta
 - » Pharma, Textile, Chemical

PUNJAB

- o Ludhiana including micro markets of Malerkotla, Sahnewal
 - » Woolen, Cycle, Hosiery, Casting, Auto ancillary
- o Jalandhar, Hoshiarpur
 - » Sports goods, Leather products, Surgical products, Garments
- o Amritsar
 - » Blanket, Shawl, Machines
- o Bhatinda, Barnala, Firozpur
 - » Engineering, Auto ancillary
- o Rajpura, Tepla
 - » 3PL

JAMMU

- o Jammu
 - » Dry fruits, Pharma, Pesticides, Handicraft



WEST BENGAL

- o Greater Kolkata including micro markets of Howrah, Dankuni, South Kolkata, North Kolkata, Central
 - » Cloth, Iron, Pesticides, Engineering, Electronics, Embroidery, 3PL, Wholesalers / traders, Food products
- o Shantipur, Bolpur, Murshidabad
 - » Cloth / Handloom, Rice, Bidi
- o Siliguri
 - » Pharmaceuticals, Tea leaf, Furniture

NORTH-EAST

- o Guwahati
 - » Tea leaf, Rubber, Brooms, FMCG
- o Agartala
 - » Rubber

- o Silchar / Aizwl / Naugaon
 - » Beetle Nut

ORISSA

- o Bhubaneshwar/Cuttack
 - » 3PL, Wholesale/Traders
- o Sambalpur
 - » Iron, Steel, Aluminum
- o Brahmapur
 - » Agri produce

BIHAR & JHARKHAND

- o Patna
 - » 3PL
- o Bhagalpur
 - » Cloth, textile

7.0 MARKET SIZE OF PTL

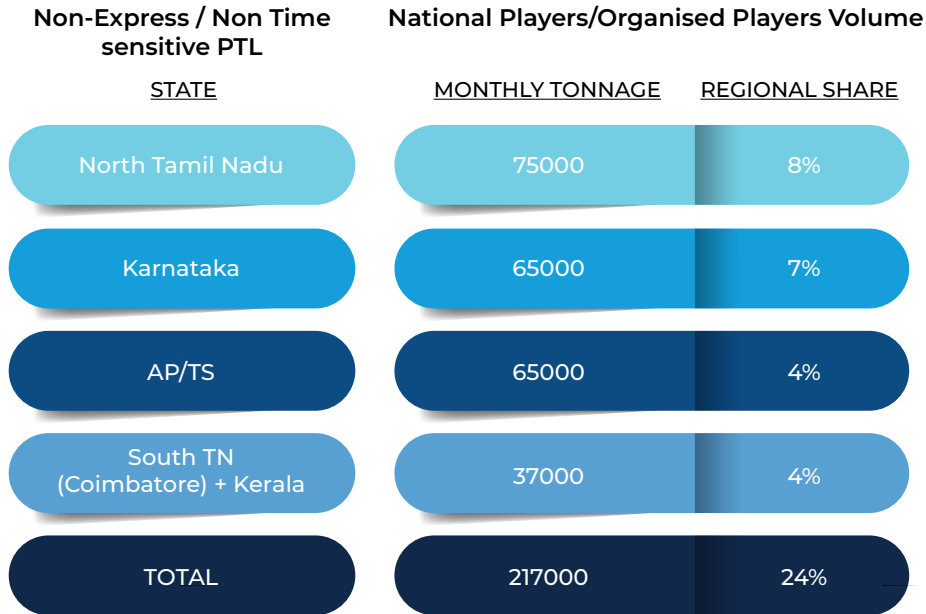


The volumes of non-express part load are substantially larger than express volumes and in terms of value the difference is relatively lesser due to lower per unit rates of PTL segment. As the market is highly fragmented and unorganized, estimation of market size is very challenging. In order to estimate it, this research has adopted following pedagogy:

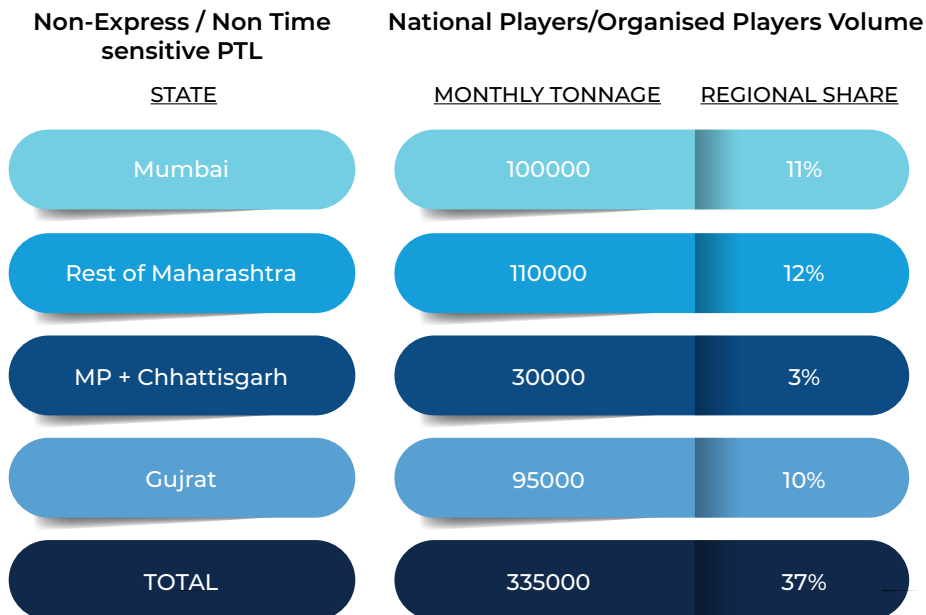
- **Step 1:** Area-wise market survey for volume estimation of major national players- Estimated volumes of major players were captured through personal interview and discussion with industry professionals across 80 markets and micro markets with more than 150 professionals. Research shows that number of organized national players is around 8 to 10. From the volumes estimate of major players across locations overall market size of National players was estimated as follow:



SOUTH



WEST



EAST

Non-Express / Non Time sensitive PTL

National Players/Organised Players Volume

STATE	MONTHLY TONNAGE	REGIONAL SHARE
WB	25000	3%
Odisha	7000	1%
North-East	7000	1%
Bihar +Jharkhand	15000	2%
TOTAL	54000	6%

NORTH

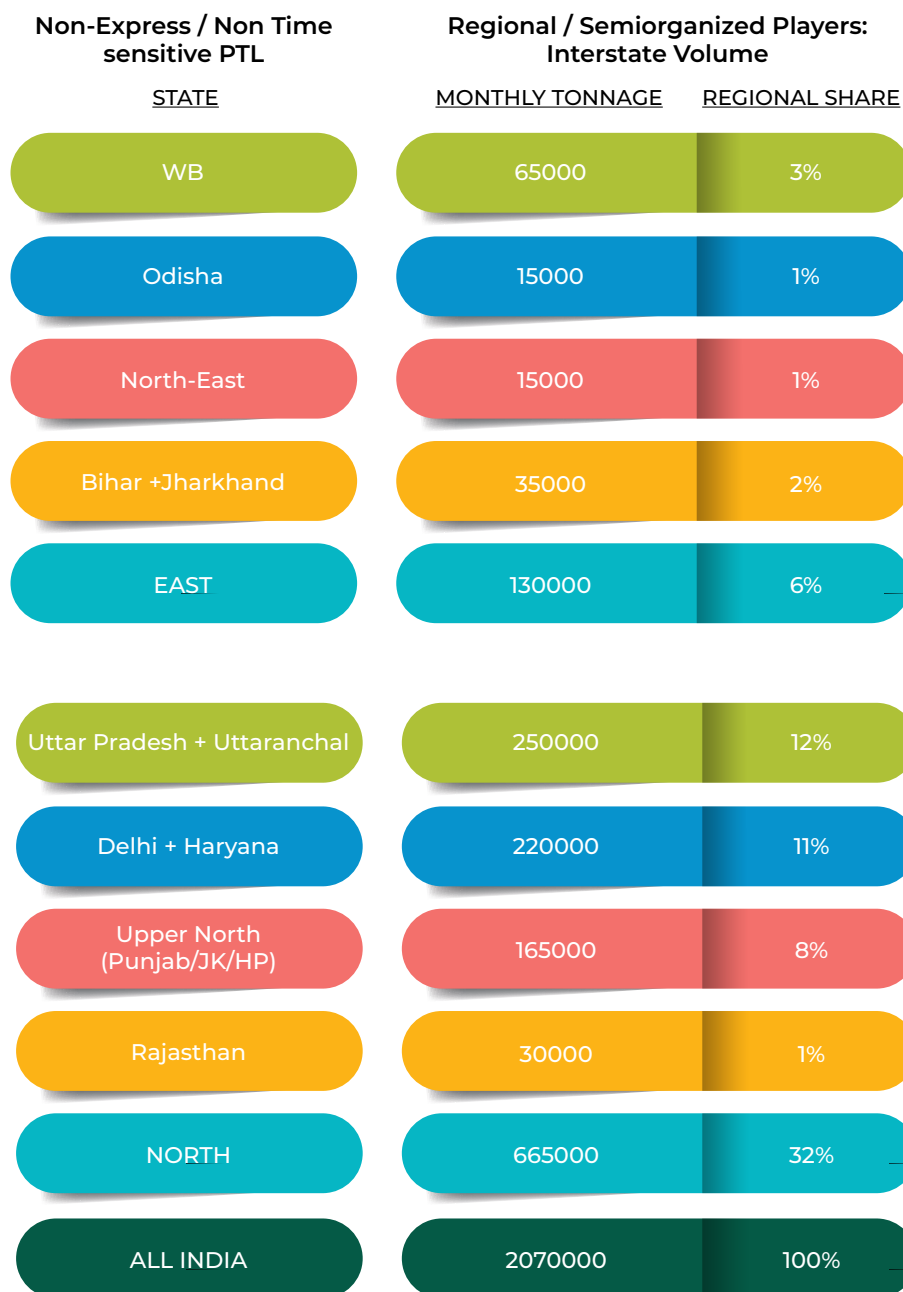
Non-Express / Non Time sensitive PTL

National Players/Organised Players Volume

STATE	MONTHLY TONNAGE	REGIONAL SHARE
Uttar Pradesh + Uttaranchal	120000	13%
Delhi + Haryana	100000	11%
Upper North (Punjab/JK/HP)	70000	8%
Rajasthan	14000	2%
TOTAL	304000	33%
ALL INDIA TOTAL	910000	100%

- Step 2:** Area wise estimation of regional/unorganized players volume on inter-state routes- As the number of players operating as regional player or lane player for interstate routes is significantly higher, the research captured area wise gross estimation of volumes from all covered market and micro market from the respondents. Due to fragmented nature volume estimation was directional, instead of precise estimation. In most of the region volume of such operators stands between 2 to 3 times of organized national players volume. The pattern was not much different from market to market. Based on directional estimate of respondents, the volumes of regional / unorganized interstate volumes are as follow:

Non-Express / Non Time sensitive PTL	Regional / Semiorganized Players: Interstate Volume	
	MONTHLY TONNAGE	REGIONAL SHARE
STATE		
North Tamil Nadu	180000	9%
Karnataka	160000	8%
AP/TS	110000	4%
South TN (Coimbatore) + Kerala	540000	5%
SOUTH	540000	26%
Mumbai	180000	9%
Rest of Maharashtra	240000	12%
MP + Chhattisgarh	75000	4%
Gujrat	240000	10%
WEST	735000	36%

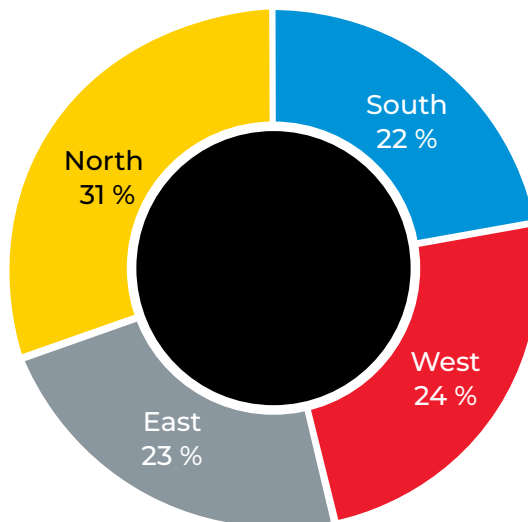


- Step 3: Estimation of within state volume:** Within state distribution market has few more complexity in terms of the role of CFA in high-volume contributing categories include FMCG, Pharma etc. Many of the CFA's have their own captive vehicles to serve within state distribution, instead of using any logistics service provider. For within state volume estimation is based on inputs from respondents about outgoing vehicle count from any CFA location to various part of state and demographic profile of the state. The prime assumption considered for the market estimation is that most of the within state movement volume

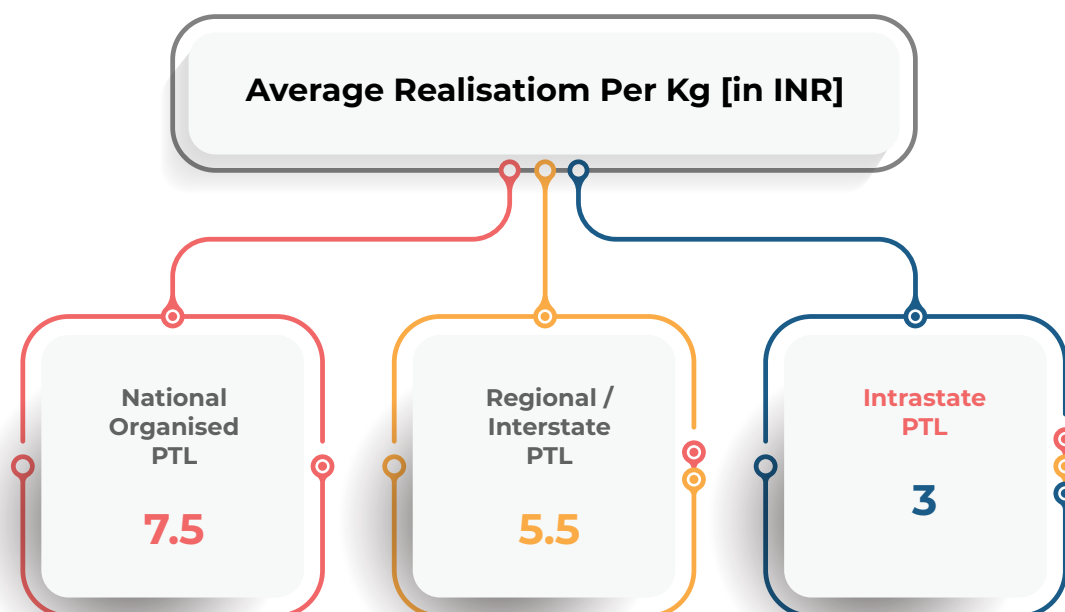
is linked to consumption in the area, instead of only industrial requirement. In some of the area's consideration for withing state movement has been taken based on distribution network, instead of political boundaries of the state. i.e: In many companies, distribution for upper north (Punjab, Himanchal, J&K, parts of Haryana) takes place from places like Ambala, Zirakpur & Tepla. So, it has been considered as a single geographic territory for the volume estimation purposes.

Overall size of PTL within state movement (excluding intra-city) is estimated to be 20 Mn Tonns per month. North India is the largest PTL market for within state movement, while East and South are almost at the same level of volume.

Within State PTL Share



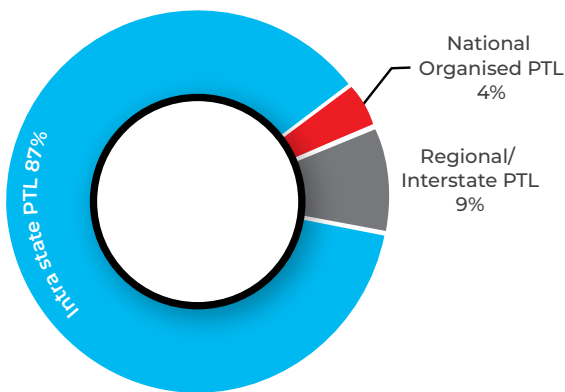
- Step 4: Market Size estimation based on Value:** Value wise market size has been estimated based on average per KG realization rates for the segment. Data captured from various industry experts shows significant variance in per Kg rates of the above-mentioned segments as following



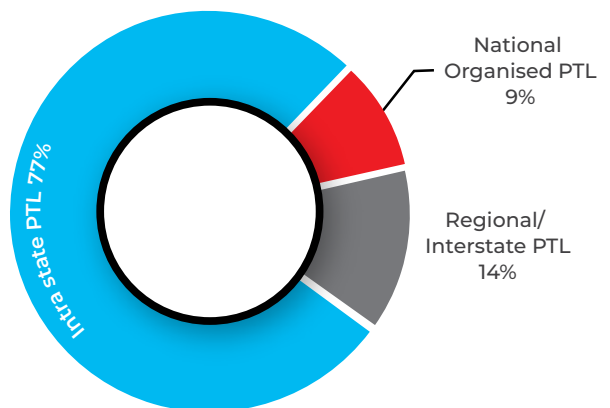
Research inputs indicate that the average of per kilogram realization includes various other charges, which are charged by logistics service providers under various headers, like per kilogram freight or Lorry Receipt charge etc. This does not include any tax like GST on transportation.

Overall size of the PTL industry is approx. \$11 Bn, out of which, within state movement is biggest contributor in terms of volume and value. On the other hand, National organized PTL is the smallest segment of PTL and it is even smaller than Surface express (Time sensitive transportation) segment.

Volume wise Segment share of PTL*



Value wise Segment share of PTL*



* excluding intra-city

Segment	Estimated Market volume per annum (In Mn Tonnes)	Market Size (In \$ bn)
National Organised PTL	11	1.0
Regional / Intra-state PTL	25	1.5
Intra-state PTL	240	8.5
Size of PTL Market		11.0

(conversion rate: \$1= INR 82)

Note: The report does not estimate intra-city logistics volumes

Intra-city Transportation

Intra-city logistics has registered remarkable boost with the growth of e-commerce. In intra-city logistics, demand side comprises of SME's & e-commerce requirement for first and last mile of B2B and B2C. We can define intra-city logistics as service of transportation from vendors / suppliers / manufacturer to hub / distributor / dealer or from hub / dealer to end consumers or in some cases captive need of end-consumer for personal transportation of goods within a city. Vehicle are underutilized to its capacity with a very poor visibility across segment. Nature of the intra-city transport requirement varies a lot. On one side large B2B enterprises require regular capacity to deliver materials to their customers, while on the other side market for huge spot engagement exist. Over a period of time, various operating models have emerged in this segment like hyperlocal or milk run. It can be broadly divided into two sub segments:

- 1. Contractual:** Contractual intra-city logistics is a segment, wherein a shipper engages an intra-city service provider / vehicle provider for a longer period of time on pre agreed commercial terms and conditions. In certain cases, the contractual service provider may be a consolidator or aggregator serving multiple clients from the same set of vehicles or infrastructure, but in most of the cases service provider or vehicle provider deploys dedicated capacity / vehicles to serve the intra-city logistics requirement of shippers. Hyperlocal is a good example for shared capacity and milk run is an example of dedicated capacity. Share of organized players in contractual intra-city logistics is still small. In case of dedicated capacity, the commercial may be per day basis or per month basis or trip basis depending on type of vehicle, service window, distance running. As per few estimates the share of contractual intra-city logistics is approx. 40% of market and demand is dominated by large enterprises.
- 2. On Demand:** On demand intra-city comprises of spot requirement of vehicle for in city transportation of goods as per demand, especially when load pattern is less frequent or one-time. Personal needs, SME's and retail stores (furniture, electronics etc.) are target audience of on demand intra-city trucking due to infrequent load pattern. Sometimes on demand requirements also come from large logistics service users in order to handle spike volumes during festives and month end. On demand intra-city logistics is also highly unorganized. Brokers and small tempo unions play a vital role in intra-city spot vehicle engagement process, which is highly inefficient and opaque for service users. Few new age players have tried to provide platform and move towards organized structure. But requirements of this segment is not standardized like passenger transport and varies as per nature of cargo as well i.e.: open body, closed body or weight segment etc. In the last few years some tech enabled platforms like Porter, Lets Transport, Lynk and Blowhorn have emerged to address inefficiencies of this market. These new age intra-city logistics players provide is a platform where customer or shipper books the vehicle according to his requirement. This model works similar to Uber for intra city trucks & many vehicles are registered on the platform one can book as per their shipping location & their need for space. Fare is calculated accordingly & shown in app at the time of vehicle booking. The app matches demand and supply in real time and shows the availability with location, expected time and cost.

Cross Border Part Load Transportation

Scope of part-load transportation by road is very limited in cross border trade. Out of 6 countries touching land border with India, cross border trade via road is primarily limited to three countries: Nepal, Bangladesh and Bhutan. In overall trading value, Bangladesh is largest trading partner among these with approx. \$16.15 bn in FY 2025[^] and this trade takes place via rail, road, waterways and air. On the other hand, trade with Nepal and Bhutan is mostly by road. Out of overall cross border trade by road, the majority of volumes flow through Full truck loads, only a small fraction moves through part-load segment. In case of Nepal and Bhutan, vehicle registered in India can move inside the hinterland of respective country with necessary documentation, while in Bangladesh transshipment is required at border.

India-Nepal border has approx. 19 entry points, but majority of trade activities take place at 4 border points: Raxaul-Birgunj, Sonauli-Siddharth nagar, Jogbani-Biratnagar & Panitanki-Mechinagar. With Bangladesh 2 borders are more prominent for trade: Petrapole-Benapole & Hili border. Jaygaon is only prominent border for trade with Bhutan. Similar to domestic road business, there are limited organized players involved in cross border road transportation on these lanes along with substantial count of small players. Although most of national PTL players are having PTL services for India Nepal trade lane, but two small players, Sugam Parivahan and Pashupati Roadlines, have their USP on this lane. On India Bangladesh sector TCI has a good presence compared to other organized players.

Inputs from few industry experts indicate that average per day PTL volumes flowing from India to Nepal is approx. 900 to 1100 Tons[^], while it is less than half[^] in case of Bangladesh. For Bhutan average daily volume hovers around 100 to 150 Tons[^]. Pricing of PTL on cross border is not very premium, once we exclude the charges related to cross border and consider only transportation part, pricing is almost similar to domestic network. Part Load cross border transportation is estimated to be approx. 1500 Cr[^] segment, wherein more than 60%[^] PTL surface transportation is with Nepal only.

8.0

CHALLENGES OF PART TRUCKING INDUSTRY



Road transportation dominates (more than 65% of transportation by volume) the transportation market in spite of being the second costliest mode of transport. The Indian transport sector is highly fragmented at the shipper & service provider end. Low technology penetration results in growth of multiple intermediaries. Information asymmetry in the transport industry leads to a situation where data is hard to capture. This leads to poor pricing, higher costs & poor service quality.

Entry barriers in Full-Truck load transportation are very low and barriers in PTL are relatively higher due to complexity of network requirements. Some of the key challenges for the industry are as follows:

Adoption rate of Information Technology

For a PTL player having a national or regional network with more than a couple of hundred branches across geography, it is very difficult to standardize without robust information technology. Even though digitization is critical for a network business, the change in perspective of the PTL has not been easy for players who were conducting business since decades in the traditional way. Many large logistics players have adopted digitization to handle the PTL business efficiently, but small and regional players lag significantly. Post covid automation process has gained momentum in PTL space and smaller players are also going for basic digitization through SaaS based platforms. These SaaS platforms provides multiple offerings, but adoption of Transport Management System has been well accepted by small players.

Lack of skilled personnel

The shortage of competent workforce and specialized personnel in the Indian logistics industry is an area of concern. This is a major concern for the PTL industry, which has high sensitivity towards pricing and lower EBITDA. Under cost pressure, hiring processes get compromised and recruits lack the necessary skill set to make the process efficient. The struggle of significant employee turnover, especially at lower levels with operational challenges. Even investment in training and development remains miniscule in this segment. Barring major / organized players, there is no focus on training and upskilling of human resources.

Rising customer expectation of service levels

Over a period of time, customers' expectations in terms of service level have increased for PTL players. Delays are a common problem for the transportation business in spite of having on-time pickup / drop at a branch by customers. On the other hand, customer's expectations in terms of transit time have also increased nowadays. Traditionally, PTL companies

are used to departing a vehicle based on its capacity utilization, otherwise they hold the material few days for consolidation. Now, holding of material has become more critical for the service providers in the absence of a full load from the origin. An increasing number of customers ask for door-to-door services from traditional players, which was a value-added service in the past. Such changes are putting continuous pressure on PTL service providers to develop cost-efficient first and last mile capabilities. These challenges are forcing the PTL industry to change.

Poor Infrastructure Conditions

Storage condition and handling is yet another difficult issue. It is no secret that by and large warehousing facilities are not in a fabulous state. In the case of pest-infested warehouses, damage from leaks, a lack of adequate storage space, and many other factors, cargo suffers significant damage. This becomes a challenge for shippers while dealing with unorganized



PTL cargo. Many large companies of PTL have made significant investments in infrastructure not only on the warehouse side, but also on material handling equipment's side, to improve handling and reduce damage.

Rise in Input Cost

One of the main issues faced by transportation firms in the Indian logistics industry is the cost of fuel. The cost of transportation for shippers goes up as a result of the fuel price hike. Organized players put a component of Fuel Surcharge in the price structure, which is applied to freight rates as a result of rising fuel prices. This type of pricing structure is not with all transporters. Although, over a period of time any steep hike in price gets passed on to customers, but for the intermediate period it leaves significant dent on the transporter's profitability.



9.0

FAVORABLE GOVERNMENT REGULATIONS & POLICIES



There are multiple regulations governing the movement of freight by road. Out of which three tax-related regulations- GST, e-way bill and e-invoicing have directly impacted the part-load industry in the recent past. It has impacted in the following way:

1. Impact of GST:

Implementation of GST had major impact on logistics sector. Single tax structure led to removal of state barriers. The trucking sector used to spend a lot of time at interstate checkpoints for compliances of state specific sales tax rules and regulations. Due to GST, paperwork and compliances got reduced which impacted positively on transit time and efficiency of part-load transportation.

In previous tax regime, manufacturers were required to have warehouses in every state or comply with complex documentation for interstate sales. While GST eliminated state specific differences in tax structures and enabled smooth movement across borders. Consequently, it enabled possibility of servicing across country from one warehouse, irrespective of load volume. After GST implementation, shipper started using part-load services as per their requirement to ship across geography. Which worked as tailwind for PTL segment.

In certain cases, GST related points create issues for the PTL service provider, especially when faulty GST number/document is submitted for a consignment by consignor, the complete truck carrying shipments of multiple shippers is detained. As most of small players have weak competencies to check the details at time of booking and validate from GST portal as well.

2. Impact of E-way bill:

E-way bill implementation reduced state-wise documentation for movement of goods. E-way bill eliminated requirement of multiple paper work to move goods across state borders. E-way bills are not required for low value shipment and very short distance. The validity of an e-way bill depends on the

distance, i.e: For less than 100 km, an e-way bill is valid for a day and its time line increases with distance in slab manner. The validity component of e-way bill has created a benchmark for outer limit of transit time. Even with enhanced compliance of e-way bill time validity, the holding time of material at delivery location has reduced. If vehicle is equipped with RFID, it has option to carry documents in digital mode, which can be tracked from devices.

3. Impact of E-invoicing

The government implemented e-invoicing in order to improve tax compliance and track real-time tracking of invoices prepared by a supplier. To bring better compliance the turnover limit for e-invoicing was reduced to 10 Cr from October 2022. In the new system invoice information is transferred from the portal, to the GST and e-way bill portal in real time. This process eliminates the manual data entry while filing the GST return and part A generation of e-way bills. This law brought many SME in preview of e-invoice, which led to change in their shipping practices. With better compliance on taxation and avoidance of any possibility of under invoicing, shippers started using organized part load transporters instead of unorganized transporters. The practice benefited organized and compliant part load logistics players.

Other rules impacting the transportation by road are as follow, which are equally applicable for part load and full load transportation:

- Carriage by Road Act 2007
- Carriage by Road Act Rules 2011
- Central Motor Vehicles Act 1988
- Central Motor Vehicle Rules
- State Motor Vehicle Rules
- Product specific Act: Hazardous Goods, Essential Commodities etc.

Apart from very specific laws related to road transportation, a part load transporter being a custodian of goods has a touch point with multiple acts or rules as per law of land. Some of these are the Contract act, GST act, Consumer Protection act, Customs act, Excise act etc.

National Logistics Policy, launched in 2022, will also have a significant impact on transportation as a whole, including part load. The objectives of National Logistics Policy are as follows:

1. Cost: Reduction of logistics cost by way of transportation efficiency, modal mix, inventory optimization and digitization. Which will be facilitated through improved infrastructure, regulatory framework and collaborative approach between Government and private sector.
2. Efficiency: Improve logistic performance index by addressing gaps in last mile, resolving issues of logistics capacity, operation gaps and infra
3. Digitization: Development of data driven system for monitoring various systems
4. Human Capital Development for Logistics

With growth of multimodal logistics and inventory optimization we may find some positive impact on PTL segment as multimodal network will be dependent on road for last mile connectivity. Initiative under NLP to develop human capital for logistics will help the sector, which faces severe issue on quality of manpower. On one side it may bring efficiency in part load but on the other hand it may have some negative impact due to shift in loads towards consolidation and rail network.



10.0

TECHNOLOGY ADVANCEMENTS IN PTL



The Indian transport industry is reforming continuously and moving from traditional to advanced form. As the PTL business model has more complexity due to its wide spread of network structure, use of technology has become unavoidable. At the very basic level, the PTL industry is changing and transforming through use of TMS to data analytics, IOT and Artificial Intelligence. Access to reliable and accurate information in real time through a higher degree of automation improves efficiency and supports the decision-making for these companies. Even small unorganized players are embracing tech enablement through SaaS platforms. Apart from functional requirement of technology, basic adoption of technology has become unavoidable due to changing compliance framework in logistics, i.e.: e-waybill, fast-tag, custom clearance, e-invoicing etc.

Except few large and national players, PTL service providers use very basic technology in operations. One of the reasons for not adopting advanced tech adoption is cost along with awareness about available options and value creation from automation. Small players always have cost pressure and have low headroom for high IT spent. Implementation of E-waybill system was a step, which forced all unorganized small part load players to consider basic computerization, till that time some of the within state / lane players were operating manually with enormous inefficiency. Covid enforced next wave of tech adoption with such small PTL players. Some of the very basic tools that PTL industry uses are TMS & VTS

TMS: A transportation management system (TMS) is a platform for logistics that makes use of technology to assist booking & delivery, managing physical movement of goods with data, invoicing etc, apart from ensuring that the necessary documentation for movement of goods. There are multiple logistics tech companies like WebX, ShipX, Loginext, Apptmyz, Cargo Xchange etc, which provide such services to PTL service providers. Most such TMS require negligible customization for implementation. Depending on the requirement, PTL players go for customization. New age SAAS based TMS are highly modular and can easily be integrated with other systems like e-way bill portal, telematics software, CRM software etc.

VTS: Vehicle Tracking System helps to track vehicle locations, i.e. it enables real-time vehicle tracking, which is now not a differentiating feature for service providers, it's a basic requirement of service. For VTS services, many TMS and telematics companies

At the next level of tech adoption, PTL companies have features like Customer Relationship Management application, Shop Floor Automation application, Sales Force Automation application, Reverse Auctioning application for vehicle hiring, Call Center/ Control Tower application, Fleet Management application, BOT, Data analytics, IOT, network optimization etc. Many large PTL players have taken lead in adopting such applications in their operations. Still the adoption of shop floor automation activities like sorting systems or conveyor systems is negligible in the PTL transport segment. Initiatives of Government under NLP to create ULIP (Unified Logistics Interface Platform) will be a driver for the next level. ULIP will create a nationwide single window logistics platform for end-to-end visibility, which will help PTL players to simplify the tedious documentation process and information availability.

11.0

FUTURE OUTLOOK



Role of the PTL industry has been very significant in the growth journey of Indian economy and is expected to remain one of the drivers in future as well. Over the period of time the nature of PTL has also evolved as per the changing requirements of customers. On one side adoption of technology is increasing in order to bring efficiency and visibility, on other side change in operation model are also taking place in PTL i.e: Now more and more customers are asking for door delivery in PTL, which was not the case a decade back. Accordingly, PTL players are developing their capabilities to serve the market.

PTL segment has been an enabler of cost-effective transportation solution for SME and traders' segment along with large enterprises. Sometimes, evolution of road express is considered as a threat for the PTL industry, as the gap between the road express and PTL has narrowed down in last few years. Express has always been a more visible and hyped form of road transportation compared to PTL, in spite of having much smaller market size. In the last few years- Express industry has snatched some share from PTL, but PTL has continued to maintain its growth. The analysis shows that PTL growth has been lesser than Express growth rate. Faster growth of express is also having some contribution from rapidly growing e-com segment, which has never been audience for PTL industry.

As per a few estimates by industry experts, the PTL segment has grown at a CAGR of 8-10% in the last 5 years. Historical data indicate that the PTL industry grows at one and half times of the nominal GDP growth rate. As per our estimate, the PTL segment may grow at a CAGR of 5.5%-6.6% in the short term and this growth may increase to 8%-9% in the longer term subject to improvement in the broader economic situation. Some of the key factors which are creating the foundation of a positive outlook are as follows:

- **Lower cost:** Part truck load transportation is cost effective compared to express logistics. For all the shipments having no criticality in terms of transit time has a low-cost option with PTL.
- **Increasing adoption of technology:** Part truck load industry is continuously trying to increase tech adoption in order to remain relevant in fast changing environment. Better tech adoption is enabling better visibility, more API with customers, efficient network control. It will also support them in being connected once Government projects under National Logistics Policy go live.
- **Service level improvement:** PTL players are continuously working

towards service improvement post competition pressure from organized express players.

- **Focus on skill development:** Skill development for logistics sector under National Logistics Policy, as unorganized and semi organized sector is biggest sufferer of unavailability of skilled manpower.
- **Transit time improvement:** Reduction in transit time due to improved infrastructure enables PTL player to reduce service window
- **Logistics Infrastructure:** Growth of large MMLP (Multi Modal Logistics Park) will create more opportunity for shorter haul through break bulk. A large count of PTL players have strength in within region and within state short haul lanes, who will get benefited from growth of MMLP

Logistics has seen huge interest from investors in the past decade and is expected to continue this momentum. But most of the investment has been in logistics technology or in e-commerce logistics. PTL and FTL have got a negligible share of the overall pie. In coming years, we may see investors' interest in PTL, as this segment constitutes a large market potential which can move from unorganized to partially organized. We also envisage headwinds on this journey due to its low cost and low margin structure. In our opinion, Express and PTL segments will coexist in economy like India, where larger share in terms of volume will be with PTL players. But over a period of time, consolidation in PTL will also take place and more organized PTL players will gain market from unorganized players. In consolidation journey many small unorganized, geography specific player will become part of large ecosystem of PTL through collaboration or M&A. This journey is expected to be quite long, due to structure of PTL industry.

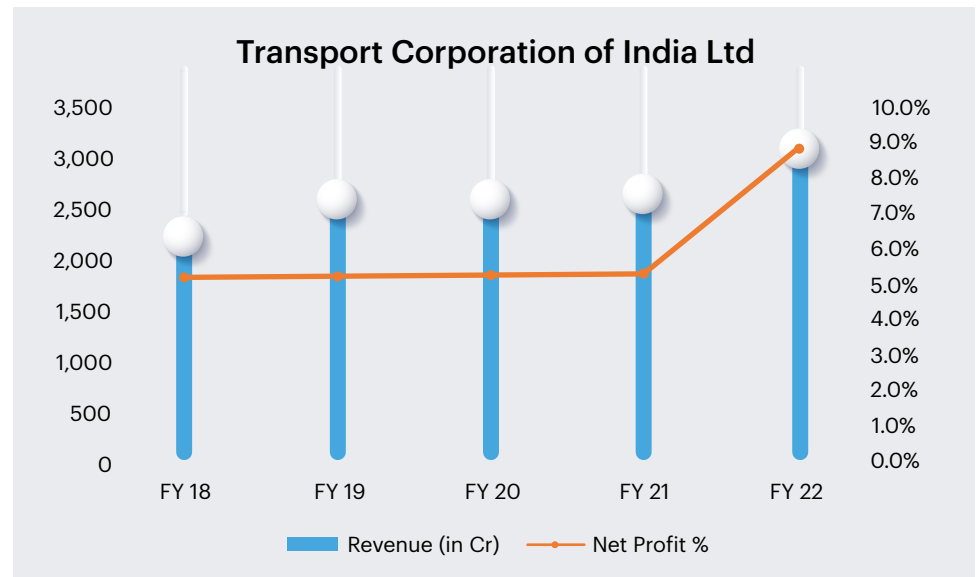


ANNEXURE — MAJOR PLAYERS OF PART LOAD INDUSTRY —



Transport Corporation of India

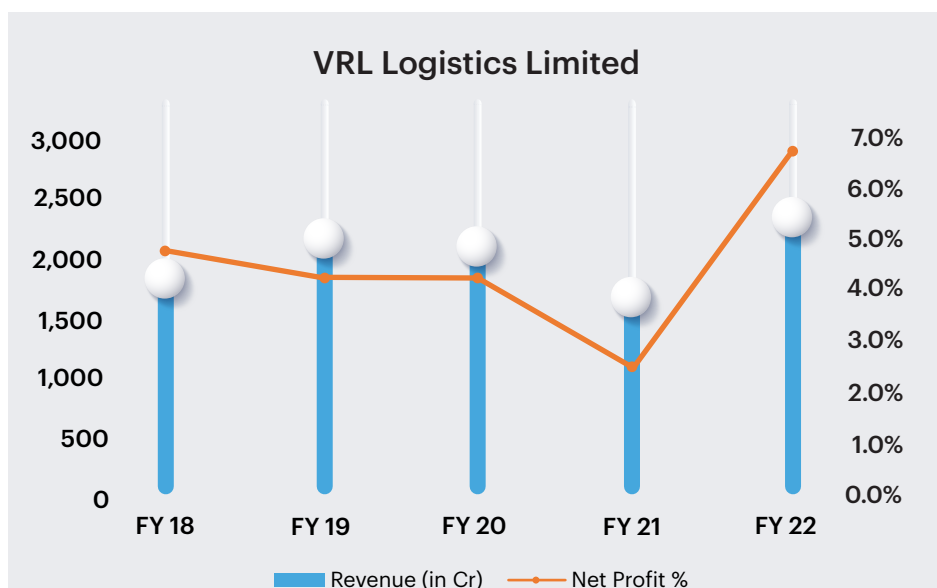
TCI was founded in 1958 at Kolkata by Mr. Prabhu Dayal Agarwal with single truck. With over six decades of rich experience and expertise, TCI has emerged as the pioneer in providing integrated multimodal logistics and supply chain solutions. TCI provide an array of end-to-end logistics and supply chain solutions in India and SAARC countries through multiple modes, including road, rail, and sea. TCI is a national player with strong network presence. TCI freight, TCI supply chain solution, TCI seaways are various divisions of TCI apart from its JV & subsidiaries like TCI Concor, TCI Cold Chain, Transystem, TCI Nepal & TCI Bangladesh. TCI freight handles Full Truck Load and Part Load transportation services. The company has 700+ branches and 25 hubs to serve the customers of the freight business. TCI Freight registered revenue of INR 1371 Cr in FY 22, out of which 35% was from PTL. The company has a target to reach 40% contribution from PTL in its freight business by FY 25. In the last few years, its Return on Capital Employed (ROCE has shown continuous improvement) and in FY 22 it was 25.5%.



Source: <https://www.tcil.com/tcil/Investor-Relations.html>

VRL Logistics Limited

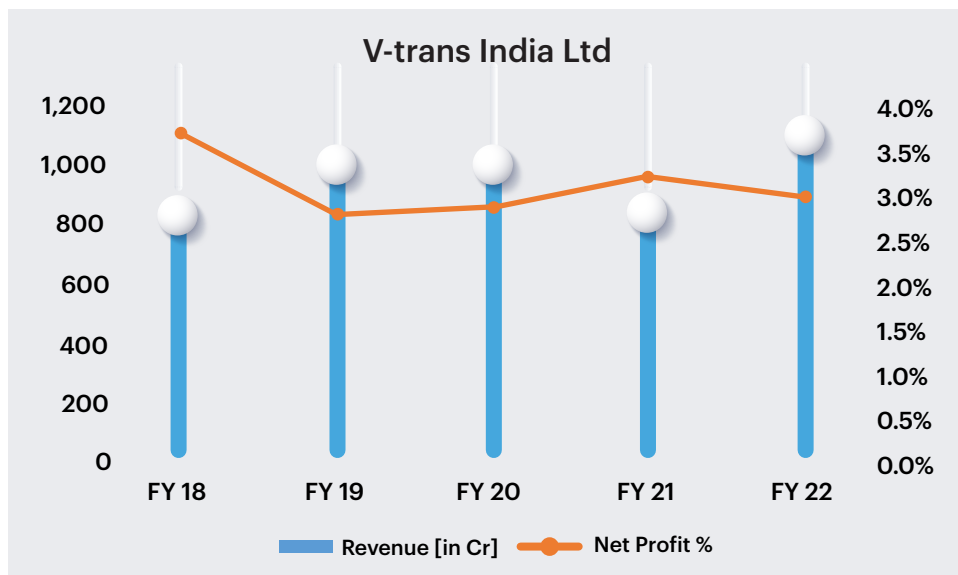
VRL was founded by Mr. Vijay Sankeshwar in 1976 at north Karnataka with one truck. In last 5 decades, Company has grown into a nationally renowned logistics and transport company specially in part load segment. With 5400+ vehicles, VRL is also the largest fleet owner of commercial vehicles in India. Fleet management is one major strength with this business model of VRL. Company is market leader out of organized players in PTL (non-express) market. VRL ventured into passenger transport through bus operations, but in current financial year (FY 23) company has decided for the sale / transfer of its Bus Operations Business Undertaking (Bus Operations) as a going concern on a slump sale basis to promoter group company 'Vijayanand Travels Private Limited'. Company serves in part load segment across industry verticals, but textile is one of its strong industry vertical for VRL. Organization is highly focused on trader & SME's segment for the business.



Source: www.moneycontrol.com

V-Trans India Limited

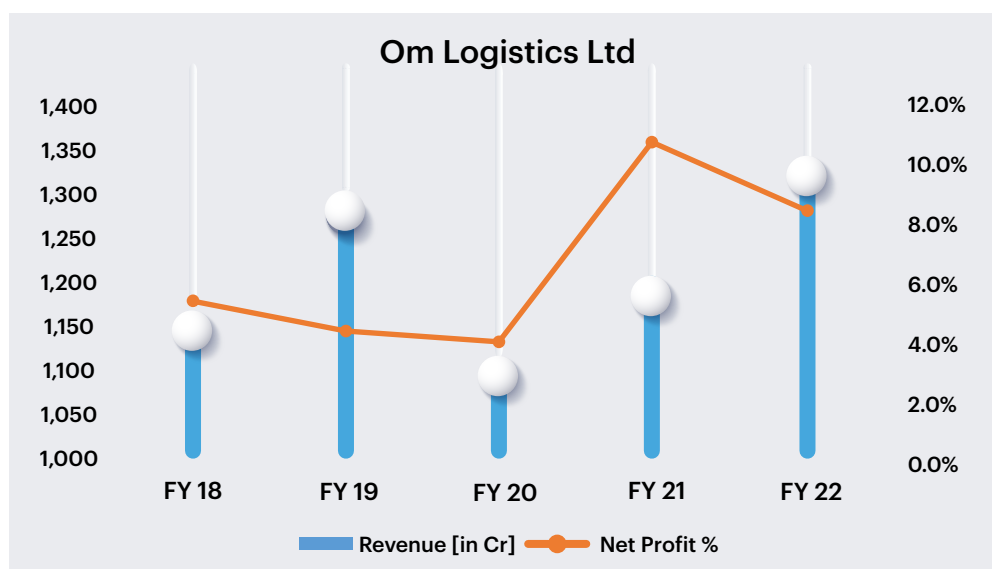
V-Trans India Ltd a logistics & transportation company started in 1958 with 2 trucks and one office as Vijay Transport and gradually grew nationally. As per the changing times and customer aspirations the Company got a new corporate identity in 2000-2001 as V-Trans India Ltd, also diversified with new services within logistics - with V-Trans as the surface transport vertical, V-Xpress as the door-to-door express arm, and V-Logis the warehousing and 3 PL vertical. With all 3 divisions, the V-Trans group is now a provider of full logistics solutions. The company is now one of the top Part Truck logistics players in India. With over 850 branches and 50 transshipment facilities and serves over 19000 pin codes in India. The company is a dominant player in the western region. In the last few years, the company has extended its services to SAARC countries. The company serves in part load segment across industry verticals and across geographies but is known to be a specialist in the chemical segment. It also has a specialty Haz-Chem storage facility named ChemStore.



Source: www.mca.gov.in

Om Logistics Limited

In 1981 Mr. Ajay Singhal entered in the transportation industry after closing down Om Industries, a plastic molding business. The initial years of the transportation business were also not so promising. Mr. Singhal first Car carrier in 1983 for transportation of Finished Cars of Maruti, until which, new cars used to be driven on roads to dealers and later company to get return loads for this dedicated car carriers from M/s Bajaj Scooters, Pune, which catalyzed the viability of doing business. This step gave a firm stand in the business model. Today Om logistics is a national player with a strong presence in the automobile sector. In 1992 new identity of business came with "Om Logistics Limited". In subsequent years company introduced various verticals like business verticals, Introduction of "OMX Info management" (An offsite record storage solution), "Om Infra Constructions" (warehousing and Logistics Park development) and "Om Trax Packaging Solution" (A joint venture of Om and Tradia Corporation of Japan focusing on industrial packaging and relocations). Then Om logistics has a network of 750+ locations, 20 million sq ft warehousing space spread across country. Om group has a turnover of 2000+ Cr.

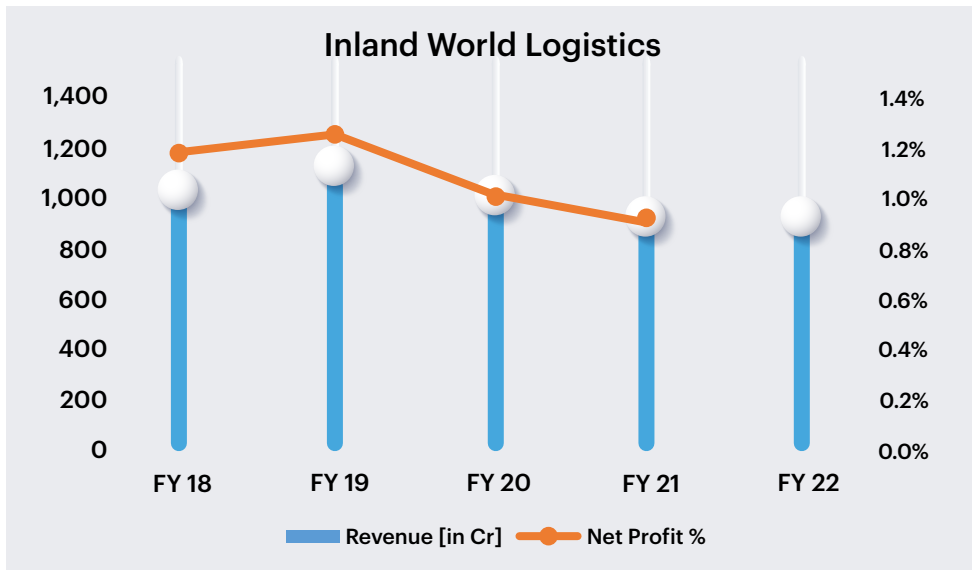


Source: www.mca.gov.in

Inland World Logistics

Inland Group, which started in 1980, has a presence in the road transportation business through Inland World Logistics. The company specializes in providing transportation of Part Truck Load (PTL), Full Truck Load (FTL) & ODC. Company also offers logistics solutions to BBIN (Bhutan, Bangladesh, India & Nepal) countries. As of now of our total business, our portfolio contains 60% of Full-truck Load services, 30% of Part-Truck Load Services and the remaining 10% as 3PL services & ODC services. The company owns a fleet of more than 500 vehicles

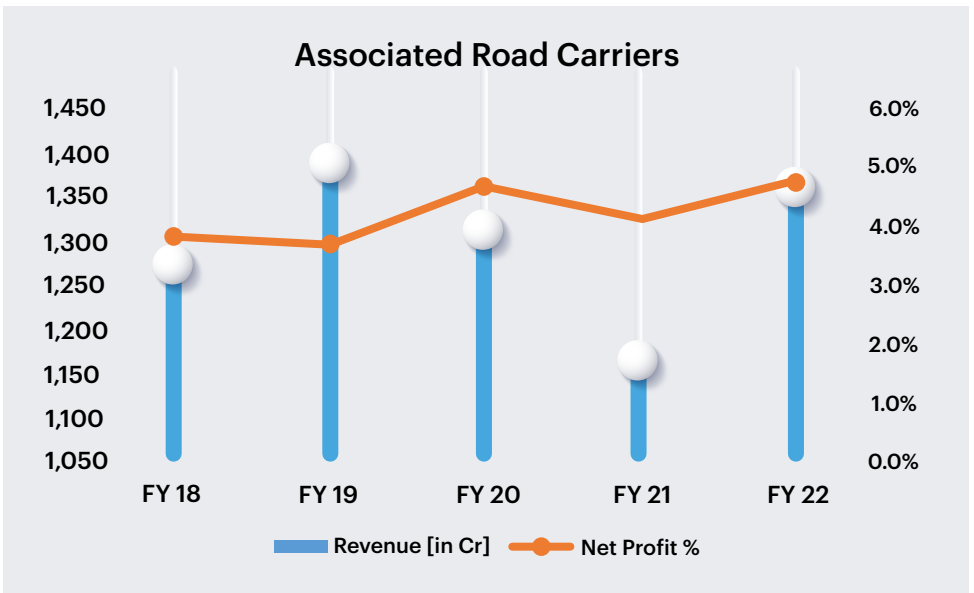
apart from its association with various fleet owners. In PTL business company has registered year on year growth of 22.5% for last 10 years. The overall turnover of the IWL is expected to be 1600 Cr in FY 23.



Source: www.mca.gov.in

Associated Road Carriers

Associated Road Carriers Limited, a national player in road transport, was founded in 1972. ARC has the transport expertise to handle from parcels to Heavy & Odd Dimensional Cargo, Project Transportation, Containers Movement. The company has strength in handling industrial goods transportation from Government organizations to private organizations. Pan India network of ARC include 580+ outlets in 400+ cities across the country.



Source: www.mca.gov.in

GLOSSARY

PTL / LTL	Part Truck Load / Less than truck load
FTL	Full truck load
EDI	Electronic Data Interchange
FY	Fiscal Year
GDP	Gross domestic product
GST	Goods and service tax
IT	Information Technology
NLP	National Logistics Policy
CEP	Courier, Express & Parcel
CAGR	Compounded Annual Growth Rate
JPP	Joint Parcel Product
POD	Proof of Delivery
COD/DOD	Cash on Delivery/Draft on Delivery
LR	Lorry Receipt
3PL	Third Party Logistics
SaaS	Software as a Service
MoRTH	Ministry of Road Transport and Highway
IATA	International Air Transport Association
VTS	Vehicle Tracking System
TMS	Transport Management System
e-invoice	Electronic Invoice
EBITDA	Earnings Before Interest Tax Depreciation and Amortization
PAT	Profit After Tax
MSME/SME	Micro Small and Medium enterprises / Small and Medium enterprises

METHODOLOGY

Individual discussions: with logistics professionals & industry experts

SECONDARY RESEARCH:

- ^ Industry estimate
- 2 Express Logistics Industry Report 2022, February
- 3 www.nic.in
- 4 Motor Transport Statistics 1997
www.moneycontrol.com
www.pib.gov.in,
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Websites of TCI Limited, Om Logistics, V-trans India, VRL
Logistics, Inland World Logistics, Associated Road Carriers and
other part load transportation companies' websites



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