



A time of reckoning

Road logistics in India

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Startups and the funding wave

NEARLY A QUARTER¹ of the jobs in India are linked to the logistics industry, in which road logistics is the majority player. Yet almost all participants, including truckers, transporters, retailers and mechanics, complain of an inherent trust deficit, possibly because of the powerful network of middlemen and small operators, that limits free exchange of information among the other participants. This results in inefficiencies and a mismatch in shippers' demand for trucks and the supply. Making matters worse is the negative perception of the truck-driving job itself. Driving a truck in India entails a low pay, a high fatality risk and a lack of respect – and it is, *unsurprisingly*, considered one of the worst jobs in the country. Therefore, any solution that aims to break through the nexus of intermediaries and shift the focus on utilization and efficiency can have a big impact on the industry as a whole.²

Major inefficiencies plague the core road logistics business.

Fragmentation

High fragmentation in both demand and supply of vehicles is causing inefficiencies. About 75 per cent of the truck supply is done by small owners (with five or fewer trucks).³ Similarly, the vast majority of transporter population in India comprises small- and mid-sized transporters. Both transporters and truckers have to rely on a network of brokers to gain access to shippers. This results in low asset utilisation as finding adequate loads is difficult for an individual trucker, and trucks can be idle for as much as 25–30 per cent⁴ of the time due to inefficient demand/supply matching.



High cost

In addition to slowing down the business, layers of brokers and agents eat into truckers' margins and add to their operating costs. In our estimate, for every 100 Indian rupees (US\$ 1.39) a shipper is willing to pay for a shipment, only 80 Indian rupees (US\$ 1.1) reaches the trucker making the delivery. The remaining amount is absorbed as a commission by intermediaries.

Lack of transparency

A healthy flow of information is critical for establishing trust in the ecosystem. For instance, to ply on a new route, truckers need to know where they can find reliable transporters, brokers, mechanics and retailers on the way. The lack of such information prevents truckers from exploring new routes, limiting asset utilisation and decreasing their efficiency.

Limited digital capabilities

Given its largely unorganised structure, the ground logistics industry has lagged in offering technology-driven service enhancements, such as live tracking, security features, analytics and logistics management software. The majority of transporters even lack enterprise resource planning systems, and rely on phone calls and manual processes instead.

Enter startups

A host of road logistics startups are taking on the challenge of organising this largely unorganised sector. In the process, they are carving new channels, meeting existing and uncovering new needs of the historically underserved truck-owner community.

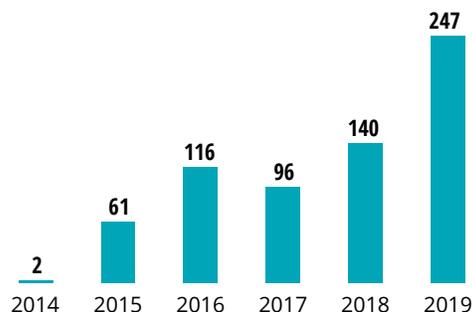
The promise of profits from disintermediation of the logistics value chain has led to a rapid increase in funding by venture capital and large private investors. The Indian freight trucking sector has seen a substantial increase in investment since 2014 (figure 1). With more than US\$ 500 million invested since, investment is increasing at a compound annual growth rate of 190 per cent (disclosed funding amount).⁵

Though investment has been seen across the three key areas – long-haul transport, short-haul delivery and logistics software solutions – it's the long-haul transport that's garnering the greatest interest. Established startups, such as Rivigo and Blackbuck, remain at the forefront of this investment wave. These two players alone had raised a total funding of more than US\$ 350 million by 2018.⁶ The short-haul intracity space too has captured investors' interest. For instance, a Bangalore-based intracity logistics startup has raised nearly US\$ 33 million⁷ since its inception in 2015. Original equipment manufacturers (OEMs)

FIGURE 1

Investment in freight trucking startups is on the rise

US\$ million



Note: The 2019 data was collected from January to November 2019.

Source: Tracxn, accessed 8 January 2020.

have also shown interest in this sector. In 2018, Tata Motors acquired a 26 per cent stake in the intracity startup TruckEasy for an undisclosed amount.⁸

The logistics software solutions space, however, is still in the nascent stage. The space covers players providing logistics technology solutions, such as fleet management, global positioning system (GPS) tracking and the internet of things (IoT)-based solutions. While disclosed funding to date in this space has been limited to approximately US\$ 20 million,⁹ significant players are emerging and beginning to scale. For example, a Delhi-based startup, which began operations in 2015, has already raised close to US\$ 5 million in three rounds of funding.¹⁰

ENABLERS OF THE NEW STARTUP ECOSYSTEM

What is boosting investor confidence that the startups will work? A growing digital mindset that may well help reduce inefficiencies and unlock value for users across the ecosystem.

- **Data affordability:** In the past few years, prices of mobile data plans in India have fallen

drastically and are the lowest in the world.¹¹ Affordable and widespread data connectivity has paved the way for mobile-first solutions.

- **Unified tax regime:** A new goods and services tax regime (commonly known as the GST) and the abolition of octroi have brought all Indian states within a single tax framework. This has resulted in a smoother flow of freight across state boundaries.

- **Digital payments:** The introduction of a unified payments interface (commonly known as the UPI) and accompanying payment apps have enabled a greater level of safety and traceability of payments in the logistics space. This has increased investor confidence towards digital payments.

What's changing? Almost everything

FUNDING OPPORTUNITIES AND the new landscape of technology have made the way for emerging solutions to create platform-based ecosystems and disrupt traditional means of doing business. Not only are these solutions solving problems for the core business, they are also strengthening the business via value-added services. To identify the triggers for success, we studied more than 40 startups operating in the digital freight-matching space, including a few that are rapidly approaching the “unicorn” status.

Solving problems for the core business:

Digital freight-matching startups are disrupting how shippers find truckers, both for long-haul and for last-mile deliveries.

Blackbuck, an intercity trucking and supply chain startup, has rapidly scaled to more than 250,000¹² trucks on its platform. According to the company’s mission statement, Blackbuck is “committed to

making it easier for millions of truckers to get access to load and move at capacity, and enable shippers of all sizes to have access to the right truck, at the right time for the right price – all at the click of a button.”¹³ The mission statement is pretty much a prescription for the malaise that haunts the sector.

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At a macro level, our analysis reveals three key models that startups use to address their core business problems (figure 2). The key distinction across the models is who owns the productive asset

FIGURE 2

Models to address the core business problems

- 1 Asset heavy + working capital heavy**
These startups own and control their own fleets and directly contract with shippers, creating the need to fund working capital. This model allows the highest level of control in meeting stringent service levels and turnaround times. Rivigo’s core logistics offerings are an example of this model.
- 2 Asset light + working capital heavy**
These startups do not own trucks, but contract directly with shippers to fulfill shipments. This model involves some level of quasi-ownership – trucks that are exclusive to the platform in exchange for minimum payment guarantees. The Blackbuck freight platform and Rivigo Freight use this model.
- 3 Asset light + working capital light**
These startups neither own trucks nor take working capital risks. They are ‘digital brokers’, doing the same function that traditional middlemen perform, but with technology and at scale.

Source: Doblin, accessed 8 January 2020.

(i.e., trucks) and who bears the working capital risk (as payments from shippers can take 30–90 days).

Besides enhancing overall efficiency, these business models offer environment sustainability benefits too. After all, fewer empty runs for trucks equal lower emission levels. According to a recent survey by the World Health Organization, India is home to 15 of the top 20 most polluted cities in the world.¹⁴ While the government looks to pass the necessary regulations and make investments to support the shift towards a greener economy, adoption of innovative business models by the private sector is equally important for supporting the country in this transition.

By bringing efficiency and prosperity back to the system, startups bring to the fore the serious problem of truck-driver shortage in the country.

Going beyond the core: Value-added service platforms are emerging either as stand-alone offers or as part of the freight-matching marketplaces.

Owners of freight-matching platforms have access to granular user data of vehicle use, maintenance patterns and even behaviours (such as where truckers like to eat and rest). This data becomes a powerful foundation for launching value-added services targeted at truckers. For example, startups have been applying machine learning and predictive analytics on truck usage and maintenance records to predict when a part is likely to break down. This enables preventive maintenance, saving truckers' time and money.

Real-time tracking and increased predictability in delivery times open up the potential to optimise warehouse operations and reduce inventory levels. Using technology, shipments can also be made more secure. For example, GoBolt, a

next-generation logistics startup, uses digital locks on its container trucks that can only be opened when vehicles are geofenced to the destination address.¹⁵

As startups scale and add thousands of trucks and shippers on their platforms, the power of these platforms will become even more apparent. Blackbuck offers its increasing user base a bouquet of products and services. These include fuel cards, tyres from multiple manufacturers, toll tags from FastTag and commercial vehicle insurance through multiple partnerships.¹⁶ Future extensions may address other challenges. For instance, a data-driven fintech lending offer could help address the pervasive lack of credit for truckers.

Some challenges, however, are structural and need more than just tech-based solutions for long-term fixes, but startups help by shifting the focus to them. For example, by bringing efficiency and prosperity back to the system, startups bring to

the fore the serious problem of truck-driver shortage in the country. In 1991, there was one driver per truck in India. At present, about 27 per cent of the trucks lay idle due to a lack of drivers, and by 2022, as many as 50 per cent trucks could lay idle for want of drivers.¹⁷ Tech-enabled platform solutions are essential if India wants to address this shortage effectively.

Rise of ecosystems

With point solutions (such as load board, online shopping and access to finance) converging and startups expanding their core platforms, a new road logistics ecosystem is emerging in India – this poses challenges for incumbents in the ecosystem. Currently, truckers need to manage a large number of vendors for running their business. These relationships have been built over multiple years and serve – ironically – both as a safety net and as

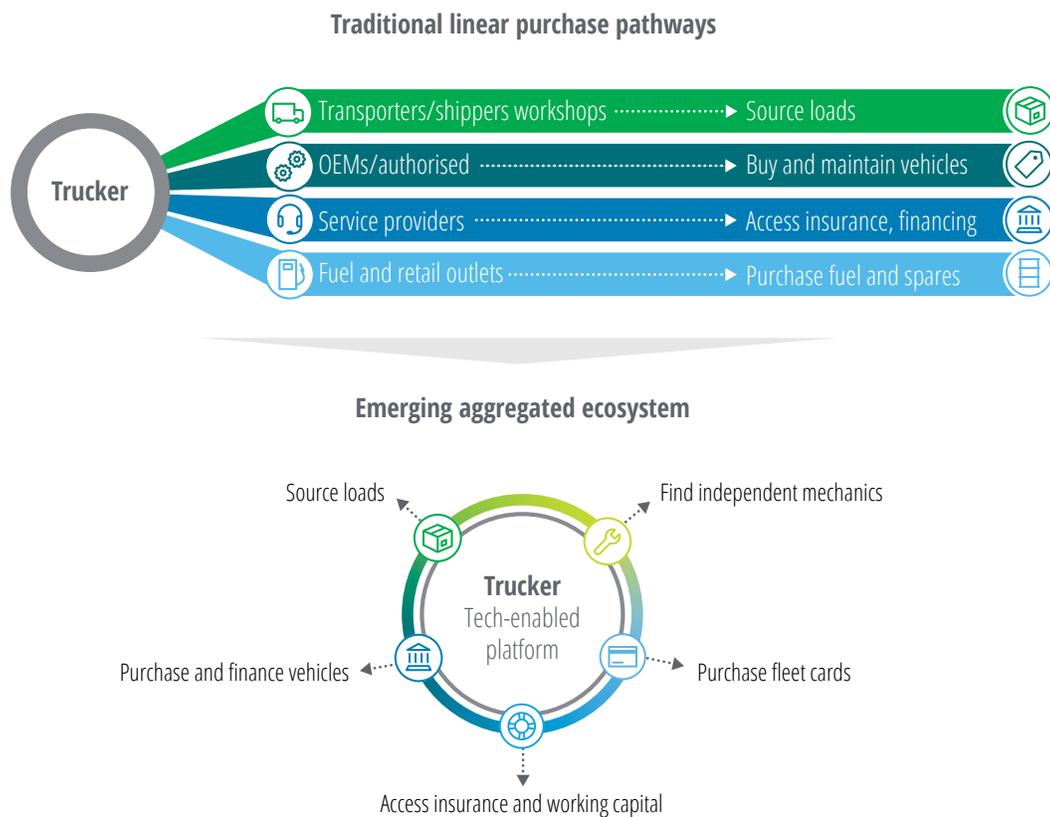
a limitation to growth aspirations. These connections provide cash in case of emergencies, extended working capital cycles, reliable services and genuine spares. As a result, small truckers typically focus on a couple of routes where they have an established network of service providers. Especially, a network of transporters (for access to loads) and mechanics (for assured servicing in case of a breakdown) is a critical entry barrier to new routes, and exposes the truckers to seasonality on

routes and limits their ability to improve their earnings.

Startups and disruptors have recognized this and are now setting in place the building blocks of a new ecosystem, which will likely allow truckers more freedom to operate on new routes and emerge as single source for all their needs. To know more about how the startup ecosystem can change the current landscape, see figure 3 and the sidebar about changing industry dynamics on page 8.

FIGURE 3

Shifts in the truck owners' engagement pathway



Source: Doblin, accessed 8 January 2020.

The changing industry dynamics have the potential to create significant shifts in the way different players interact with each other.

How do shippers manage warehouses and other parts of their supply chain?

Lower inventory: Innovations by startups, such as the driver-relay system, have resulted in faster delivery of products. As a result, shippers can now operate on lower inventory.

Efficient supply chain operations: Real-time tracking of shipments allows shippers to better plan for receiving products at their warehouses. They are now able to hire staff for loading and unloading as needed and turn around trucks faster.

How do auto OEMs access their customers?

Market share information: These ecosystems serve as a great starting point for OEMs to understand the usage of their vehicles by geographies, routes and demographics.

Establishing network: The geographies and routes also serve as useful information for setting up network of workshops and retailers, especially for new OEMs.

Targeted offerings: By knowing the age and usage patterns of the trucks, the OEMs can run targeted campaigns on their new product offering, pricing schemes and financing.

How do service providers, such as insurers and financiers, access customers and data?

Alternate sources of data for lending: Access to completed trips, earnings from the trips, consumption of fuel and spares will allow banks and financiers to genuinely ascertain credit worthiness of the loosely banked population.

Customized pricing: Insurers can analyse data from GPS devices to better evaluate driving patterns of drivers and thereby provide customized quotes.

How do truckers pay for product and services?

Digital first: Truckers are increasingly gaining comfort in transacting digitally as it has significantly reduced friction of having to deal with cash.

Backed by longer credit cycle: Platforms are increasingly willing to extend longer credit cycle to their frequently transacting customer. This mimics the practices followed in physical retail but also increases the stickiness of the customer.

How innovation can help incumbents navigate their way through disruption

CHANGE IS THE bitter reality for incumbents. As the current pace of change continues, traditional intermediaries, such as transporters, retailers and mechanics, are being forced to adapt quickly or face the risk of obsolescence. OEMs need to rethink their go-to-market strategies and interact differently with their channel partners. We believe that the rise of new ecosystem platforms poses the following fundamental questions for incumbents operating in this space:

- How might they participate in the changing landscape and tech-enabled disruption? Should they build, buy or partner to accelerate innovation?
- How might they develop a differentiated offering for the customers?
- How do they future-proof organisations from inevitable disruption?

Participating in the changing landscape: While evaluating build/buy/partner decisions, the internal and external environments should be assessed to determine the best springboard for success. Internal considerations could be:

- How strategically important is it to have operational control or intellectual property rights on a given innovation?
- How much time would it take to build a solution in-house, and do they have the capabilities to do so?

- Do they have funds that are protected for innovation-related acquisitions, and will they secure necessary leadership approvals?

External considerations could be:

- How important is speed to market from a competitive perspective?
- Are there solutions/startups that fit well with the incumbent's innovation objectives and may be interested in collaborating with them?

As the current pace of change continues, traditional intermediaries, such as transporters, retailers and mechanics, are being forced to adapt quickly or face the risk of obsolescence.

Depending on its strategic goals, resources available and a deep sense of what's at stake, an incumbent can choose to build and buy while another may choose to build. The industry has successful examples of both types. See the sidebar, "Examples of execution strategies."

Developing differentiated offerings: **Start with in-depth, unconventional insights about**

EXAMPLES OF EXECUTION STRATEGIES

Build + Buy

In February 2018, Mahindra agreed to acquire Porter, a digital logistics startup focused on last-mile services. At the time of acquisition, Porter had more than 10,000 vehicles on its platform and completed 1.5 million deliveries.

At the time of the acquisition, Mahindra said that it was “keen to grow its presence in the shared mobility logistics solutions space, which was an area of strategic interest.”

Porter was to be merged into Mahindra’s own in-house digital mobility startup, SmartShift, which was built/incubated under the aegis of the Mahindra Group.¹⁸

In July 2018, Tata Motors, via a subsidiary, bought a 26 per cent equity stake in TruckEasy, a tech-based freight aggregator. Through this investment, Tata announced its intention to “gain insights into the rapidly growing technology-driven transformation in the freight logistics space.”¹⁹

Build

In May 2018, BPCL launched FleetGenie, a platform built in-house that focuses on providing truckers return loads and access to telematics, cash management, roadside assistance, collateral-free working capital, telemedicine, among other services.²⁰

Also, in May 2018, DHL launched SmarTrucking, a tech-led operation model, to provide reliable long-haul transportation solutions. The venture has more than 700 trucks and 21 smart hubs across India.²¹

users and challenge orthodoxies. Due to a rapid change in the market, companies are facing increasing pressure to innovate.

To achieve quick wins, they often resort to traditional methods of innovation (such as adding a new feature to or improving the performance of existing products). However, these improvements are usually iterative and often disconnected from genuine user needs. Immersive ethnographic research goes deep into customers’ lives to identify their real unmet needs. For instance, when we interacted with transporters on the ground, we found several instances of two family members making a base at the opposite ends of a freight route.

Struggling with an unreliable ecosystem, they were responding with an age-old solution for the lack of trust – one brother relying on another.

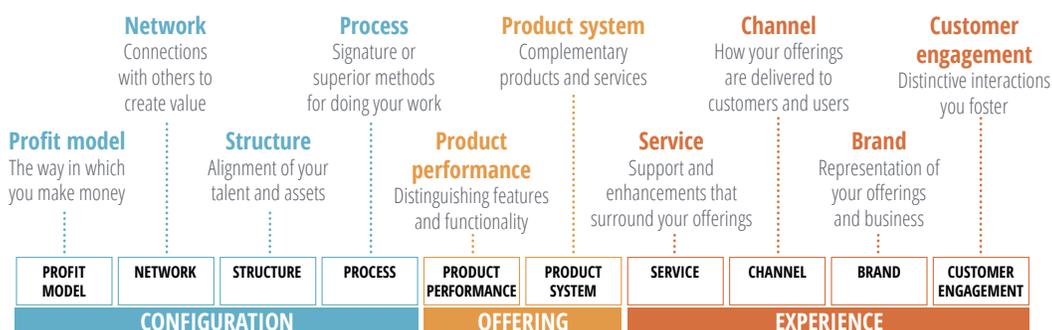
Solving trust issues through reviews, ratings and escrow mechanisms is at the heart of many emerging tech platforms. Successful platforms are those that understand the basis for trust and bridge the prevailing deficit, rather than simply building a tool to transact on.

Challenge orthodoxies

Orthodoxies are pervasive beliefs about ‘how things are’ that often go unstated and unchallenged. They exist at both organisational and industry levels. If made explicit and challenged, orthodoxies can be a powerful source of innovation insight. For example, an orthodoxy in fuel retail could be ‘I refill my car at the gas station’. Some fuel retailers have flipped this orthodoxy by delivering fuel at customers’ doorsteps.²² Deliberately challenging these often-unspoken conventions can help generate

FIGURE 4

Doblin's 10 types of innovation framework



Source: Doblin, accessed 7 January 2020.

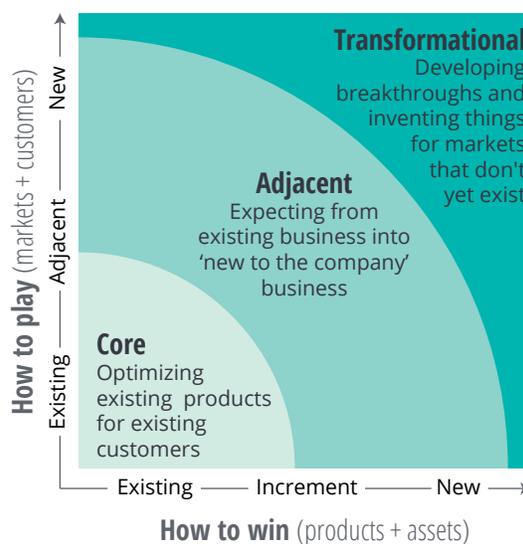
opportunities for companies to differentiate themselves from the pack.

Prepare for disruption: Look beyond product innovation to transform other elements of your business system. As mentioned before, many organisations still think of innovation as new products, new features or dramatic advances in new technologies. However, for us, these represent a small part of the innovation compendium. Our extensive research reveals that successful innovators often use multiple levers (typically up to ten types; figures 4 and 5) across the value-chain to arrive at compelling propositions. These ten levers can be grouped within three categories, namely:

- **configuration** innovations apply to profit models, networks, structures and processes. This comprises back-of-the-house activities needed to develop an offering
- **offering** innovations apply to product performance and product systems, essentially what companies produce
- **experience** innovations apply to services, channels, brands and stakeholders. This is how an offering is delivered to customers, and stakeholders are engaged as a company performs its business activities.

FIGURE 5

Ambition matrix



Source: Geoff Tuff and Bansi Nagji, "Managing your innovation portfolio," *Harvard Business Review*, May 2012.

Invest in innovation ambition

Be explicit about the innovation ambition, and then organise and execute accordingly.

Our research also reveals that companies with the strongest innovation track records *articulate their innovation ambitions and maintain a strategically relevant portfolio of initiatives* across ambition levels. Some efforts focus on core innovation that

optimise existing products for existing customers. Others focus on **adjacent innovation** that can help expand existing markets or develop new products, working from their existing bases. Many others still target **transformational innovation**, i.e., deploying capital to develop solutions for markets that do not exist just yet or for needs that customers may not recognise that they have.

The “Ambition matrix” (figure 5) provides a framework for understanding where a company stands in terms of its commitment to innovation.



However, the optimum balance of capital allocation across different types of innovation will vary by company.

Conclusion

IN TIMES OF exponential change, organisations with a narrow approach to innovation can lag behind while more proactive startups leap forward.

A comprehensive approach to innovation matters because it directly correlates to performance.

Our research reveals that top innovators across all industries outperform the market in terms of how many different types of innovation they pursue. Research results also reveal that the maximum shareholder value accrues not from product-related innovations, but from a series of innovative initiatives across the value chain.

As the logistics industry in India gears up for exponential change, legacy profit pools are up for grabs. If incumbents do not respond on time, newcomers focused on innovating and solving the fundamental issues plaguing customers will eat into their profits.

We recommend that incumbent companies should:

- foster a portfolio mindset for innovation
- include investments that proactively create value in growth areas that are new to them
- use multiple types of innovation (not just a new product) to create new experiences and businesses.

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