

# Technology-led Disruptive Freight Marketplaces – The Future of Logistics Industry

## Abstract

The success of Uber and similar on-demand ridesharing services has inspired the creation of technology-enabled freight marketplaces - as a solution to logistics challenges. Although a number of freight marketplaces exist today, the absence of a groundbreaking logistics marketplace similar to Uber or Lyft in the passenger transportation market, calls for further innovation in engaging carriers and attracting shippers. There is a clear need to establish disruptive freight marketplaces underpinned by innovative technology features. This paper analyzes the challenges that shippers face with the current marketplaces, and explores alternative ways to build a more effective freight marketplace.

## Fragmentation and Lack of Trust: Two Key Problems Plaguing the Logistics Industry

With a large ecosystem of players, the freight and logistics industry faces multiple challenges such as high levels of fragmentation, complex regulations, demand-supply mismatch, lack of transparency, and volatile rates. These challenges further compound two fundamental problems the industry has been facing for some time now – empty miles and utilization. According to The Economist, every year, trucks in the US travel empty for a combined 50 billion miles (80 billion kms).<sup>1</sup>

Another problem is that the industry is highly fragmented. According to the US Department of Transportation, the 50 largest trucking companies handle just 30% of freight activity across the US, and one in nine American truckers is an independent owner-operator rather than an employee.<sup>2</sup> With this level of fragmentation, trust is a limited commodity in the logistics market. Shippers have traditionally relied on brokers to find trustworthy carriers to haul their goods. Carriers have also depended on brokers to find loads and reduce their dead hauls. Brokers typically charge a commission of 15 to 20%, and with the lack of transparency into the process, brokers can choose the priciest options for their clients to increase their commissions.

The growing adoption of the internet and the rise of load boards has mitigated this issue to a certain extent. Truckers searching for loads can log in to the board and search listed postings to find one that matches their requirements. The transaction is subsequently completed offline. However, the fact is load boards also end up serving the brokers' interests more than that of shippers'. Moreover, while this arrangement improves transparency, pricing options, and carrier reach, the breadth of services on load boards is quite narrow.

## The Shortcomings of Current Freight Marketplace Models

With advancing technologies, freight marketplaces have begun to make an appearance. Such marketplaces are designed to connect shippers and carriers more quickly and efficiently, helping carriers maximize their productivity and asset utilization, resulting in lower costs for shippers. In certain ways, the freight marketplace represents a marriage between the traditional freight brokerage model and the modern e-commerce model. Based on our understanding of the emerging industry dynamics and on-ground experience of working with global logistics companies, we present a comparative snapshot of the three freight market models - offline brokerage, load boards, and marketplaces (see Table 1).

	Transaction costs	Breadth of services	Transparency of operations	Transaction speed	Carrier reach
<b>Brokerage</b>	High	Low	Low	Low	Medium
<b>Load boards</b>	Medium	Low	Medium	Medium	Medium
<b>Marketplace</b>	Low	Medium	High	High	High

Table 1: Comparison of the three freight market models

While marketplaces have clear advantages over the traditional brokerage and load board models, as far as customers are concerned, they also have a few shortcomings.

- Although, the process of matching carriers is transparent, the service quality of chosen carriers is often unsatisfactory. This further compounds the fundamental challenge around the lack of trust in the industry.
- Spot quotes offered to shippers and carriers are typically standardized. Shippers however need customized rates based on their current demand and supply.
- Lack of customer-centric experiences in the marketplaces.
- While marketplaces meet the basic requirements of shippers and carriers, there are few, if any, value added services available.
- Absence of end-to-end visibility into freight movement.

## Leveraging Technology to Build a Disruptive Freight Marketplace

A set of next-generation offerings that leverage the latest technology can be used to create a disruptive freight marketplace to overcome the shortcomings of existing marketplaces and address the key requirements of shippers and carriers (see Table 2).

Requirement	Need for a next-gen offering	Enabling technology
<b>Trust-enabled marketplace services</b>	Freight marketplaces bring together a set of players who are unfamiliar with each other. Ensuring trust and assurance in each transaction is a key differentiator.	<b>A blockchain-powered marketplace platform</b> can offer end-to-end integrity and assurance across functions such as track and trace, ratings, invoice audits, and feedback.
<b>Customized dynamic spot rates</b>	The ability to offer customized yet dynamic spot rates for shippers is the holy grail of any freight marketplace. Accurately calculated spot quotes lock the customer into the quote to assure minimum shipper churn and maximum win-loss ratio.	Intelligent algorithms based on analytics and probabilistic methods can create rapid-fire quotes for customers.
<b>Critical carrier base for every lane</b>	The strength of a freight marketplace is often measured by the number of carriers in it. However, in reality, carriers are much fewer in number than shippers. Ensuring a critical mass of carriers in the marketplace attracts shippers and makes the marketplace vibrant.	Telematics and mobility help maximize the number of carriers. When carriers broadcast their current locations, they can provide up-to-date information on:  Closest loads to their location Wait times along with rates
<b>Omni-channel engagement for shippers and carriers</b>	Today's tech-savvy shippers and carriers use various channels and modes to access information. Keeping them engaged and hooked to the marketplace requires channels beyond the usual website or mobile application.	Social media plugins, widgets, and messenger chatbots can introduce an omni-channel engagement strategy. These tools help shippers and carriers broadcast loads, receive quotes, and answer enquiries.
<b>Allocation or self-service selection of loads for millennial drivers</b>	If millennial drivers are able to work in a region of their choice and at specific time intervals, they can enjoy a better work-life balance.	A disruptive freight marketplace can make optimum use of mobile-friendly applications to crowdsource and team up drivers for shorter legs. The entire route can be divided into multiple 'transfer' legs and each leg can be driven by drivers who live around the area, much like a relay race.
<b>Value-added services for loyal carriers</b>	Freight marketplaces need to enable tasks beyond order booking and execution. Loyalty programs and driver classifications such as 'professional' or 'certified' can be introduced to incentivize drivers to enrol on the marketplace. A host of value-added services such as insurance, fuel cards, electronic logging device services, and maintenance can be offered to qualified carriers.	<b>Telematics and gamification</b> built on an analytics platform can help support the delivery of value added services. Capturing driving behavior through telematics and gamifying the process can improve the loyalty of the driver community.

Table 2: How technology can enable a differentiated freight marketplace

Figure 1 provides an overview of how various technologies come together to create a disruptive marketplace.

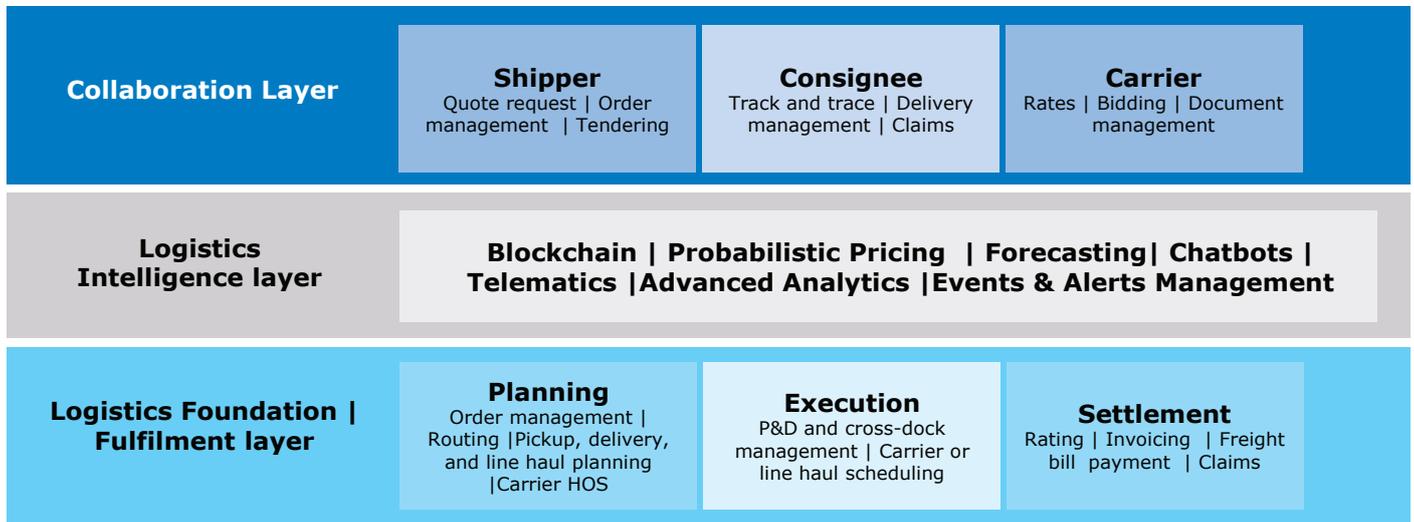


Figure 1: How different technologies come together in a freight marketplace

Next-generation offerings and technologies in a disruptive marketplace help carriers and shippers ensure reliable delivery, better management, and superior customer service with enhanced visibility and real-time insights into consignments. Other advantages include improved vehicle and fleet utilization through proper scheduling and increased visibility and ensuring fair pricing options using predictive algorithms and historical data. Lastly, both carriers and shippers can increase revenue by reducing empty backhauls and ensuring faster transactions

## Looking Ahead

A mutually beneficial business relationship between postal companies and SMEs, underpinned by a digital platform, will catalyze growth for both these entities. Starting out as logistics partners, postal companies can finally become digital enablers for small and medium businesses. A digital platform offering an elaborate array of services will allow postal companies to address the varied demands of SMEs. In doing so, postal organizations can carve out a differentiated position in the marketplace, extend their existing delivery capabilities, and further develop innovative digital services for SMEs in the future.

## Technology-enabled Freight Marketplaces: The Rebirth of Logistics Industry

Marketplaces enable fast and efficient logistics to meet growing consumer demand for the right product, right price, and accurate delivery. With the emergence of technologies such as blockchain, advanced analytics, probabilistic pricing algorithms, and artificial intelligence, there is a huge opportunity to create differentiated freight marketplaces. By driving efficiencies through better data insights, reduced operating costs, increased potential customers, and streamlined operations, freight marketplaces will soon become the norm for the logistics industry. Marketplaces that quickly adopt new technologies and adapt quickly to changes will therefore become industry leaders.

### References

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