

CHAPTER 1

WHAT IS A FREIGHT EXCHANGE PLATFORM?

A freight exchange is an online service for haulage companies, logistics providers, freight forwarders and transport companies. It allows haulage companies to search a database of available freight that needs to be delivered and advertise their available vehicle capacity. Logistics providers and freight forwarders can advertise their freight loads that needs delivering as well as match their freight loads to the available vehicle capacity. These systems provide a platform that allows carriers to communicate freight traffic information to fellow operators such as transporters, forwarders and logistics companies. They allow forwarders to advertise their freight either privately or publicly to a large number of freight operators that are looking for loads. They also allow freight operators to offer vehicle space. Online systems are normally subscription-based with a small charge for advertising (posting) and searching (consulting).

The main purpose of a freight exchange is to fill empty vehicles on their return journeys (when they are on their way back to their depot after a delivery) by matching them to available freight.

For example, a trucker has an order to transport tulips from Keukenhof in the Netherlands to Como, Italy. Ideally, a freight order for the return trip would increase profitability, so the trucker would search for return freight or return load on a freight exchange.

By finding return loads it results in improving efficiency for haulage and transport companies as well as helping cut down on empty journeys which reduces CO2 emissions.

The world's first electronic freight exchange was called Teleroute and was launched in France on the Minitel system in 1985. Before the Internet, users were supplied with a terminal to advertise or search for freight. Today, there are many examples around the world offering many services to haulers and freight forwarders.

The classic freight exchange was a favorite tool in the centralized economies. For example, there was a ban against driving with an empty truck in the socialistic Czechoslovakia. Transport companies had to use the national system showing information about available loads.

With the help of new technology freight exchanges are now able to improve efficiency even more by integrating with telematics and transport management systems to offer realtime freight load matching utilizing GPS technology.

A freight exchange platform is a service or network platform that allows carriers to search for the loads available for transport, where they normally optimize round trips and/or the available space in their transport vehicles, and at the same time freight companies publish their loads with the objective that the carriers find them easily (WEBTRANS, 2020).

The operation is simple, the carrier or the company that wants to send the goods contact through an on-line service where he agrees on the price of the trip and the exact date of its departure.

This concept was first known in France in 1985 by a company in the transport sector. He was born thanks to the Minitel system for his communications, he is now considered the “grandfather” of the freight exchanges platforms that we know today on the Internet. Since then, it has become popular and thanks to technology it has become a full on-line service.

Using freight exchange platform provides the carriers, forwarders and transport users to see and connect their loads with trucks in real time and know the exact position at any time. In addition, this concept enhances the security and information of the entire process.

TYPES OF BUSINESS MODELS APPLICABLE FOR FREIGHT EXCHANGE PLATFORMS

There is a significant variety of business models applied for different freight exchange platforms and provider types in the market. In order to distinguish between the various types, three key differentiating dimensions can be considered based on the Baron et al (2017) study. These are as follows:

1) Business models with value-chain focus

These business models are focused on the non-contracted part of the market, or so-called ‘spot business’. The providers of these types of platforms need to guarantee they cover *the new value-chain elements*. For example, key account and operations management for which forwarders and carriers have experienced senior sales and operations management structures in place. This allows them to manage continuous improvement, handle escalations and trigger corrective actions. On the other hand, *some of the value-chain elements possess a very different nature in the contracted business* – for instance, large shippers expect their legal, commercial and other requirements to be followed rigorously instead of receiving standard service. This may require platforms to meet specific electronic data exchange (EDI), reporting or invoicing requirements.

2) Decision-making quality

Among the different (digital) business models applied in different freight exchange platforms, quality of decision-making varies strongly. For instance, basic platforms display only basic information, but the advanced ones allow for integration of real-time data and/or advanced analytics to make automated decisions. Many forwarders, logistics providers and carriers still base their operational and commercial decisions on manual data collection and heuristic methods. However, advanced digital players find optimums in large data sets and immediately adjust network structures and routes to increase asset utilization. In spot pricing, it usually takes a carriers or forwarders hours or days to provide a response to a client rate request, but the modern platforms can calculate and offer rates in seconds based on smart algorithms.

3) Commercial ownership

For the successful FEP's business model development it is of particular importance whether providers take full responsibility for the information provided (e.g., via third parties) and services offered. Particularly, simple platforms act as information brokers only. They neither validate offer details nor take any liability or risk for the actual service provided to the client. Actually, the carriers or the forwarders are those who take over responsibility, which is a key asset for shippers as it increases confidence.

Based on the differences in the functions and elements we could distinguish between the functions covered by the business models applicable for contract and non-contract business operations as presented on figure 3.