



# Kale Logistics CEO, Amar More predicts the disruptive trends shaping the Air Cargo Industry

All of us in the global air cargo industry are bombarded with technology jargons like Blockchain, Artificial Intelligence, Data clouds, driverless trucks, robotics etc. However, rarely are the use cases of these technology buzzwords discussed in detail in the context of our industry. We as part of the industry, we are watching these developments closely and here's how we see some of these technologies potentially disrupting our processes in not so distant future.

We see that there will be a place for a Travelocity or Expedia of air cargo. However, these types of portals won't diminish the importance of traditional freight forwarders (as the forwarders do much more than just bookings) but these will increase the opportunities for them. Such portals could also empower the users in decision making by displaying the rankings of 'Ease of Trading Across Borders' of transit countries, Logistics Performance Indexes (LPI) of destinations/transit points, Cargo Service Quality ratings etc.

**Data Backbones & Uberization:** Portals will have links to the Logistics Data Backbones / Data Clouds. Exporters can upload digital equivalents of commercial documents and assign those to the forwarders and customs brokers through data backbones. The existing new generation community systems can front end these data backbones in order to ensure that the shipment data is reused by the next partner in the supply chain.

Once the bookings are done through these portals and digital equivalents of documents can be uploaded in data backbones, trucks can be booked for pick up using "Uber" like apps and one could actually book a special category of "Driverless Truck" from the "Uber" like app at a discounted price.

**Block Chain Technology:** Declarations, if not documents may still be required and critical documents like Certificate of Origin will be issued using the "Block Chain" technology. When the driverless trucks would arrive at the shipper's warehouse; smart tags can be placed on packages so that using the Internet of Things (IoT), devices can make the packages talk over a 7G network.



Whilst the truck is on the way, the forwarder can pay the terminal charges using cryptocurrency / block chain technology or even book a slot for acceptance at the airport. The electronic token can be delivered to the truck. The boom barriers at the airport cargo complex could open based on the electronic token in the truck and the truck could dock at the assigned dock. The cargo would announce itself at the terminal and can be screened via high speed, high resolution scanning technology and volume/weight measuring machines. Shipments that have already received pre-clearance can move on the roller skates directly into the collapsible containers or pallets with in-built identification tokens based on the load plan received by the carrier's system. The ULDs can be sealed with electronic seals and moved on the roller skates on to the driverless dollies, from where they can then be loaded in an aircraft. The APIs from aircraft navigation system constantly show the movement of cargo in the air.

**Robotics:** Robots can load the trucks or humans with the help of augmented reality glasses for faster picking / loading. The cargo can then announce itself in the truck and the truck identification device can get associated with each of the packages on the truck. The data on truck manifest could go directly on the data cloud and get submitted to the airport for provision of advance information.

The export declaration in the exporting country can become an import declaration in the destination country through unified Customs procedures. The origin or the destination forwarder can then pay duty, terminal charges and DO charges using block chain technology to get import permissions. He could book the delivery truck slots and driverless trucks using Uber-like app.

Cargo can be unloaded by robots on the dollies and sent directly to the delivery docks via HIGH SPEED scanners. The containers could go on the driverless truck directly either to the consignee or to the forwarder's warehouse. The forwarder could then deliver to the consignee using drone deliveries, depending upon the volume/size of shipments expected and the sky-traffic.



#### About the Author

Amar More, CEO, Kale Logistics Solutions, is an accomplished professional with over 20 years of experience in supply chain, consulting and technology industries. He is on the panel of experts at UNCEFACT, on the Board of Directors of TIACA, USA and on the executive committee of IPCSA, UK. He also has the unique distinction of being the first and only Indian to receive the "CILT International Young Achiever Award – 2009" for his work in transportation technology. Amar's passion is to bridge the technology gap between the developed and developing logistics industries globally and his talented and passionate team at Kale Logistics has developed disruptive new generation technology solutions for the logistics industry which are transforming the industry and raising the levels of technology adoption in the SME sector of logistics industry in India & Globally. Amar also assists several governments on conceptualizing trade facilitation initiatives to usher in "Ease of Doing Business" using digital technology.