



shapes future of supply chain

With its predictive capabilities, Artificial Intelligence (AI) is improving the logistics world by having a tool which can help with capacity planning and accurate demand forecasting. **CARGOTALK** explains how AI is bringing the change across the industry and what can be expected in the future.



Kalpana Lohumi

Logistics industry has seen many advancements in recent years, be it, infrastructure or technology. The industry is even making all the efforts in upping the logistics game with the adoption of technology and making the processes smooth. AI will no longer be considered as the technology of future, as it has already started shaping everyday lives and even taken pace

in global logistics and supply chain management. While AI is making waves across industries, **CARGOTALK** delves into how Indian logistics and supply chain industry is making benefits out of it.

Adding to this, **Parvinder Singh**, Managing Director, Hans Infomatic shares, "AI has been a catchword in the supply chain world recently. Worldwide,

logistics and supply chains are undergoing a transformation as more AI is being employed to manage both domestic and international movement of goods. There are vast opportunities, from improving performance to creating customer satisfaction, and the logistics service providers are increasingly seeing the benefits of being a part of digitally integrated value chain which

is truly global, scalable, agile, and cost-effective."

Logistics industry always registers influx of tonnes of data and volumes of shipments gathered from every touch point. **Amit Maheshwari**, CEO, Softlink Global shares its ground-breaking advantages. He says, "Logistics industry requires several decisive factors for immediate business decision like suitable carrier, possible routes and scheduling which can be decided in few minutes with average human mind and with the help of AI we can make accurate decision within seconds. Intelligent warehousing helps to bring efficiency by enabling smart data-driven insights integrated with AI in segregating, sorting and moving. In future AI will automate the entire logistics & supply chain operations where

the routine repetitive tasks will be redundant and hence employees can focus on core functions of the businesses."

According to **Nihar Parida**, Industry Expert, "The core issue today in supply chain and logistics is to bridge the gap between demand and supply and how fast can the orders be fulfilled. Currently, most or may be all the organisations use multiple software or ERPs for different functionality of supply chain and logistics. By virtue of this, the systems work in silos and do not talk to each other. The human intervention or interpretation of data and its co-relation to business plays a huge role. As humans we have a limited bandwidth to correlate between number of data tables.

With Big Data and AI or Machine Learning (ML), the data from all the systems are being analysed and the results are much sharper and beneficial."

Mentioning logistics and the supply chain is a complex process which requires a lot of planning along with flexible and customer friendly solutions. **Vaibhav Vohra**, Managing Director, Continental Carriers, believes, "With recent technological advancements, logistics industry is exploring AI and its solutions in terms of resource management, distribution systems, cost reduction and better customer services and experience etc. Growth of digitisation in the logistics and supply chain sector has made people interested in using AI to maximise their resources by accurately calculating the time and money involved in the distribution process of a package to a certain place."

Ashish Asaf, MD & CEO, SA Consultant and Forwarders, explains how the technological tools have the potential to make the air freight forwarding cheaper, safer and simpler. He explicates, "Automation of the business processes paves path to achieve the agility and scalability required to compete with time, thereby increasing productivity, driving revenue growth and breaking through the confinements of stereotypes. Technology is transforming the freight forwarding, logistics and supply chain ecosystem in multiple ways, from automated systems to augmented reality and the use of big data, machine learning and AI."

MAKING PROCESSES EFFICIENT

The on-going evolution in the areas of technologies like AI and ML are said to seize the potential to bring in disruption and lead



Parvinder Singh
Managing Director, Hans Informatic and
DDP Trailblazer, India Cargo Awards 2019

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AI can analyse
warehouse processes
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sending, receiving,
storing, picking and
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individual products
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Amit Maheshwari
CEO, Softlink Global and
India Cargo Awards Winner 2019



Nihar Parida
Industry Expert



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innovation within industry. Sharing his experience, Parida adds, “The industry is still learning how to use AI. Most of the customers I have dealt with or introduced AI are more inclined towards business intelligence from the historical data. They are yet to understand how the predictive analysis of AI can not only optimise their supply chain but can increase their sale substantially.”

“Lately the term ‘Big Data’ has been under the limelight. It is said that businesses around the world generate nearly 2.5 quintillion bytes of data daily. So, for sure it has penetrated almost every industry today and is a dominant driving force behind the success of

enterprises and organisations across the globe. The same is the case with the logistics industry the world over. There are many air and ocean carriers and multinational logistics companies, who have adopted AI in their quest to technological advancement. There are online portals provided by these players which offer pricing and business prospects based on predictive analysis, customer behaviour, seasonal aspects thereby filtering the right business, increasing revenue and mitigating risks. The best fact is that out of almost 900 organisations that have adopted or initiated working towards blockchain technology, with the use of AI and predictive analysis, 30 per cent are from the logistics and supply chain sector,” notes Asaf.

“Government’s policy with stress on digitisation is making people interested in adopting new technological advancements. It is need of the hour for logistics players in India to invest in technologies to make the processes efficient. Globally, logistics companies have made significant investments in AI and technologies in transportation and warehousing of goods. It should also be considered that adoption of technology needs an equal

support of better infrastructure along with transparent and efficient documentation,” opines Vohra.

“While the industry is suddenly flooded with data like never, before digitisation of processes continues to remain a challenge. Despite this, the industry is waking up to the potential transformation that it can undergo by leveraging the new-age technologies that can drive the sector soon,” points Singh.

Commenting on the present status of industry adopting technologies like AI, Maheshwari informs, “AI in logistics has come a long way where we can imagine driverless cars, pilotless aircrafts, drone delivery and predictive analysis in future. The logistics and supply chain industry, fuelled with Big Data and AI is gaining momentum to streamline the huge amount of data flow in the industry. So far, the data has been tracked, utilised, cleaned, sorted and analysed with limited scope. The difference today, however, is not only the presence of huge data but availability of complex algorithms in technologies that enable computing, sorting, evaluating and in taking actions. Slowly, AI is being used to extract contextual intelligent reports such as availability of trucks

Findings

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Managing Director, Continental Carriers and
Face of the Future, India Cargo Awards 2017



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“Technology is transforming the freight forwarding, logistics & supply chain ecosystem in multiple ways, by the use of big data, ML & AI”

for delivery, accurate delivery time and costing in real time to minimise the inventory and operational costs. One of the widespread adoptions of AI in the industry is the Graphical Processing Units (GPUs) which is the exponential functioning of CPUs.”

Digitisation

■ Growth of digitisation in the logistics and supply chain sector has made people interested in using AI to maximise their resources by accurately calculating the time and money involved in the distribution process of a package to a certain place

SHORTEN DISTRIBUTION PROCESSES

AI is being used to calculate the fastest routes which enhance productivity and reduce transportation costs. Commenting on how AI shorten the distribution processes, Vohra says, “There are apps available that help in keeping track of the vehicle and provide last-mile visibility that allows



logistics companies to optimise routes using real-time traffic data, improve vehicle utilisation and provide cost effective routes. Such technology is also being effectively used for keeping a check on fuel consumption, operational planning and in providing accurate delivery schedule to the customer.”

According to Asaf, predictive analytics in businesses can be highly instrumental to assess the market for new products, target audience, forecasting consumer demand, rationalising supply, improving timelines and schedules, instant data processing, as well as keeping fleet running at peak performance levels.

Elaborating the roles AI plays in optimising the modern supply chain, Singh tells, “It extracts important data from customers, suppliers and documents. It helps to manage the flow of goods throughout the supply chain, ensuring that raw material and products are in the right place at the right time. AI can analyse warehouse processes and optimise the sending, receiving, storing, picking and management of individual products. It can also analyse fleet performance and ensure the right distribution

channels to get goods to retailers and other customers in good time.”

Maheshwari calls it the most vital technology that will enable the first to the final link in the supply chain by providing visibility about the manufacturing, shipping, inventory management, accounting and customer relations to make accurate and timely decision for the businesses. He continues, “Logistics and supply chain technologies are adding abundance of algorithms to facilitate operational standards, to spot errors with a higher level of accuracy than humans and reduce the overall distribution time of the industry.”

“AI can lead to proactive approach to supply chain risk management with increased visibility and control over tiered networks of suppliers to guide risk management activities and resources to the most critical areas,” Asaf adds. On the other hand, Parida is not sure if AI can shorten the distribution process or not till the time the constraints of Indian logistics are mapped properly. He continues, “Theory of Constraints is important for AI to think and give any proper analysis. Going ahead with it will definitely make the distribution leaner and profitable.” 📌