IOT HAS THE POTENTIAL TO CONNECT VIRTUALLY ANYTHING AND ACCELERATE DATA-DRIVEN LOGISTICS. EVERYDAY OBJECTS CAN NOW SEND, RECEIVE, PROCESS, AND STORE INFORMATION, AND PARTICIPATE IN LOGISTICS PROCESSES.

BY MOLLY R

RECENT TECHNOLOGICAL ADVANCEMENTS have changed the face of the supply chain and logistics industry. During the early days of the pandemic, the rise of e-commerce has played a huge role in shaping the way warehouses operate, as have consumer expectations for speed of delivery, customization, product availability and much more. With the growing complexities of customer demands and the globalization of many retailers due to e-commerce, warehousing trends have shifted to keep up with the ever evolving and increasing demand of customers.

Amrit Bajpai, COO, WayCool Foods, says, “A successful supply chain ensures free and seamless real-time flow of material, information and money across all stakeholders from the source to the customer. Supply chains of the future should use technology to improve visibility end-to-end. This will support companies’ ability to resist external shocks, such as the pandemic or any other future black swan event. The first technology bouquet transforming supply chains is digitization, which ensures that distribution systems are intelligent, autonomous, and au-

“Investing in technologies that can help lower the cost per unit making it more competitive in a market which is driven by price.”
- Aditya Vazirani

“The first technology bouquet transforming supply chains is digitization, which ensures that distribution systems are intelligent.”
- Amrit Bajpai

“DataKart enables brand owners to share accurate and updated SKU data with retailers/sellers in a structured manner.”
- S Swaminathan

“QR codes, bluetooth, IR, bar codes, and their scanners are being deployed to digitise and track movement.”
- Anjani Mandal

1. Robotics solutions are entering the logistics workflow, supporting zero defect processes.
SUPPLY CHAIN

2. Each product needs to be represented accurately and consistently in potentially thousands of different places online.

“Before Indian companies start implementing paperless operations with bar code scanning is just the initial step towards an automation journey.” - Anamika Jain

32

SUPPLY CHAIN

2 & 3. Each product needs to be represented accurately and consistently in potentially thousands of different places online.

“We are working on building a dock management system to monitor and optimise the unloading time taken by incoming vehicles.” - Anamika Jain

33

SUPPLY CHAIN

“Companies are adopting warehouse management and yard management tools and automation. They are looking to do geo fencing solutions (using GPS or SIM tracking) and security gate digitisation to know when empty trucks are reaching the gates/porphy of their warehouses to be loaded. When you are managing 40 or 50 trucks a day, it is difficult to know where these trucks are. Digitisation manages the warehouse yards and truck movement. QR codes, bluetooth, IP, bar codes, and their scanners are being deployed to digitise and track container movement. These IoT and digital mechanisms can be connected to weigh bridges, security gates, ERP systems and TMS (Transport Management Systems).” - Aditya Vazirani, CEO, Robinsons Global Logistics Solutions

Aditya Vazirani, CEO, Robinsons Global Logistics Solutions believes that investing in technology that can help lower the cost per unit making it more competitive in a market which is driven by price. Outsourcing non-core functions to professionals who can provide a flexible solution.

But before Indian companies start considering their implementation, they will need to be equipped with the right foundational tools. Aik-Jin Tan, Veritical Solutions Lead, Zebra Technologies Asia Pacific, says, “In the case of warehouse automation, there are five phases before they can reach full maturity with the ability to fully sense, analyze and act on their data to unlock opportunities for productivity, accuracy and efficiency and overcome the challenges. While most companies may think of the utilisation of advanced technology systems, the reality is that even modernization of basic data capture, analysis and distribution workflows can make big difference.” Mobile computers like TC63, MC30, MC33, printers like ZT610, ZT411, scanners like DS3678, DS2X, tablets like L10, ET5X and wearables like RS5100, WT6000 – all of which are seemingly commonplace technologies in today’s digitally-driven society – are not always common sights in warehouses that were built years ago. Yet these are the foundational elements that give a modern warehouse a good structure it needs to continue to grow and flourish in the future.”

STAYING AHEAD OF THE GAME

Technology is not about only robotics and automation, it also about building better visibility and analysis.

BEFORE INDIAN COMPANIES START IMPLEMENTATION, THEY WILL NEED TO BE EQUIPPED WITH THE RIGHT FOUNDATIONAL TOOLS.

tal, says, “Companies are adopting warehouse management and yard management tools and automation. They are looking to do geo fencing solutions (using GPS or SIM tracking) and security gate digitisation to know when empty trucks are reaching the gates/porphy of their warehouses to be loaded. When you are managing 40 or 50 trucks a day, it is difficult to know where these trucks are. Digitisation manages the warehouse yards and truck movement. QR codes, bluetooth, IP, bar codes, and their scanners are being deployed to digitise and track container movement. These IoT and digital mechanisms can be connected to weigh bridges, security gates, ERP systems and TMS (Transport Management Systems).”

Alexandre Amine Soufiani, MD and CEO, FM India Supply Chain, says, “Blurring the lines between the digital and physical worlds, augmented reality (AR) will provide new perspectives in logistics planning, process execution, and transportation. By adding virtual layers of contextual information onto a heads-up display or other digital device, AR empowers workers by providing the right information at the right time and in the right place with absolute accuracy. Globally, FM Logistic uses AR to train its warehouse staff on handling and operating complex processes with higher levels of detail. We use the same technology to demonstrate our capabilities to our clients.” - Anjani Mandal, co-founder & CEO, TruckNet Digi-
IOT AND DIGITAL MECHANISMS CAN BE CONNECTED TO WEIGH BRIDGES, SECURITY GATES, ERP SYSTEMS AND TMS.

By adding virtual layers of contextual information onto a shake-up display, all offers the right information at the right time and in the right place.” - Alexandre Amine

6 & 7. Automated monitoring of labour productivity in the warehouse is another technology advancement.

“By adding virtual layers of contextual information onto a shake-up display, all offers the right information at the right time and in the right place.” - Alexandre Amine

6 & 7. Automated monitoring of labour productivity in the warehouse is another technology advancement.

6 & 7. Automated monitoring of labour productivity in the warehouse is another technology advancement.

BIG DATA ANALYTICS AND MACHINE LEARNING WILL BE THE ADDITIONAL LAYERS SITTING ON TOP OF DIGITISED SUPPLY CHAINS.

The first wave of automation using collaborative robots has arrived in the logistics industry. Driven by rapid technological advancements and greater affordability, robotics solutions are entering the logistics workforce, supporting zero-defect processes and boosting productivity.

Warehouses are constantly faced with the challenge of efficiently optimizing space. It is critical for warehouses to run as efficiently as possible and work on warehouse space optimization which calls for the deployment of innovative logistics solutions. The goal is to increase the quantity of stock that can be stored in the available space and to ensure it can be located and moved safely but efficiently.

The government of India’s focus on making India a global manufacturing hub has caused warehousing clusters to expand rapidly beyond the top cities and into Tier 2 and 3 cities. Also as most of the Tier 2 and 3 cities in India are aligned with industrial hubs the demand for A Grade warehouses in these cities has increased substantially. Parallely, the increasing internet penetration in rural areas in addition to rising household income and government’s push on digital in rural areas, has increased the pressure on manufacturing organisations to move closer to their customer base in these areas. In this endeavour to cater to the hugely untapped rural customer base, organisations have realised the importance of developing quality and world-class warehousing facilities as these facilities not only offer operational excellence but also facilitate cost optimization.

6 & 7. It is critical for warehouses to run as efficiently as possible and work on warehouse space optimization.