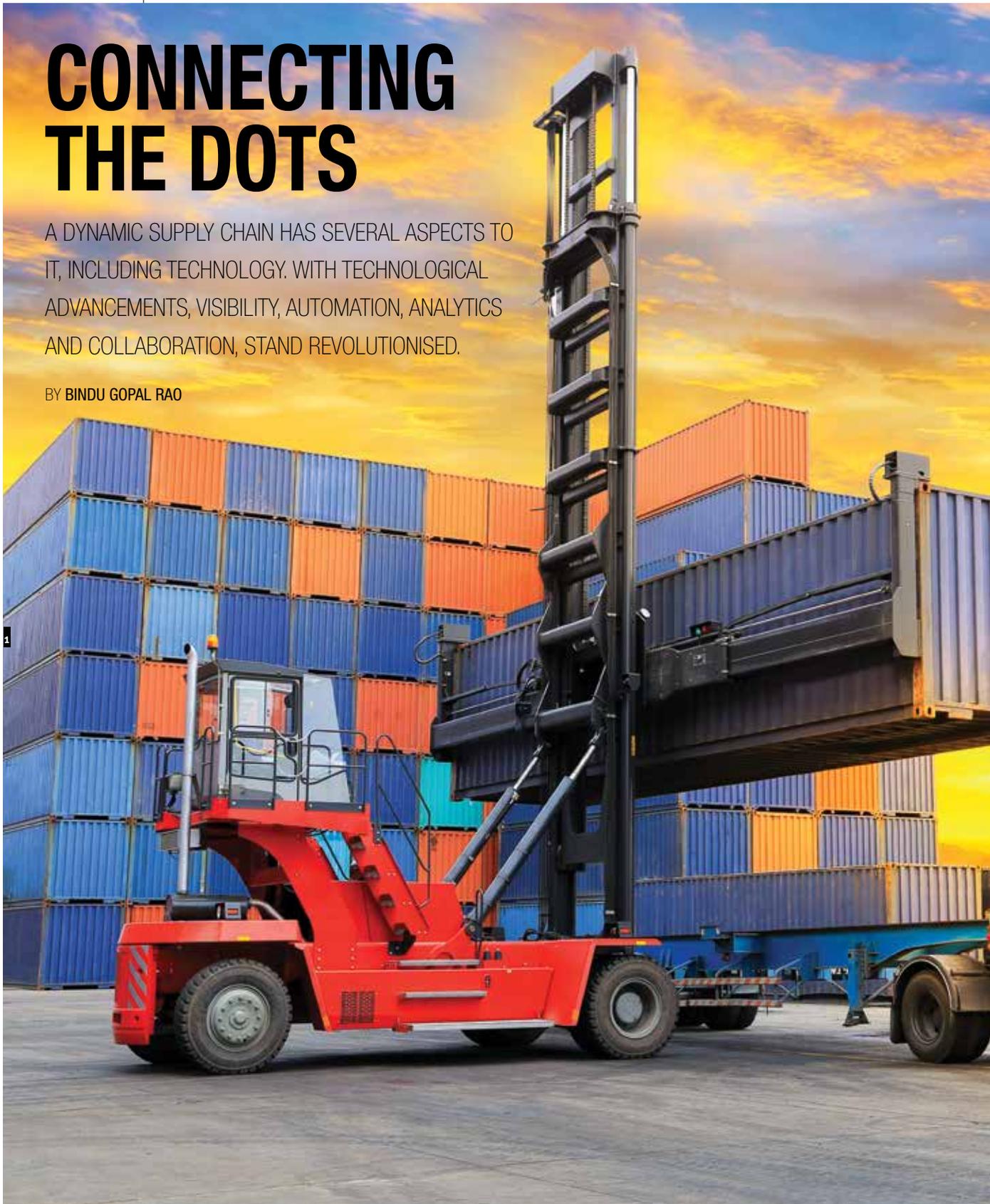


CONNECTING THE DOTS

A DYNAMIC SUPPLY CHAIN HAS SEVERAL ASPECTS TO IT, INCLUDING TECHNOLOGY. WITH TECHNOLOGICAL ADVANCEMENTS, VISIBILITY, AUTOMATION, ANALYTICS AND COLLABORATION, STAND REVOLUTIONISED.

BY BINDU GOPAL RAO





TODAY, SOFTWARE DESIGNED TO HANDLE

back-end operations is a must as the logistics arena is complex and vast – worth a staggering \$300 billion. “Technology in the current epoch is capable of managing all operations in logistics, from quote-to-cash to exploring business opportunities. Automated process workflows, accurate market assessments based on data analytics, utilisation of IoT (Internet of Things) devices for safe and efficient transit and, precise track-a-pack mechanisms are among the many advancements made in the supply chain arena,” avers **Roopa Venkat, co-founder, Mera Transport**.

A critical component in manufacturing is a robust supply chain. Advancements and improvements in supply chain are constant. A dynamic supply chain has several aspects to it, mainly in terms of technology. “There has been an increase in the growth of the tech-enabled logistics provider. As technology penetrates every area of the supply chain; tracking solutions, sensors and other devices fixed in cargo and vehicles provide a real-time picture of assets (of all types, not simply trucks) in the field. On the back-end, transportation management systems (TMSs) are becoming progressively sophisticated, providing comprehensive transportation management from end-to-end. For tying seamless TMSs together with onboard tracking platforms and inventory management, shippers, carriers as well as receivers will look up to smart logistics providers. The main objective is to amend supply chains connecting in transit based on a real-time inventory snapshot,” says **Sumit Sharma, co-founder, GoBOLT**.

Rahul Garg, founder & CEO, Moglix, adds, “With GST coming in, there is a lot more focus on building an organised supply chain. There is an increase in organised logistics across the country, increase in organised payments and in organised distribution systems. From the perspective of technology, Cloud adoption/SAP acceptability has increased and hence one can build supply chain solutions that can be integrated to ERP, but are available on cloud. Moglix is in line with these advancements, having designed its own SAAS-platform that integrates to the ERP and enables complete digital supply chain for an organisation.”

MASTERING E-COMMERCE LOGISTICS

Online purchases continue to account for a progressively large portion of overall retail sales. With consumers’ expectations getting reset, in turn retailers’ delivery policies too are being reset. Retailers now have more stringent delivery deadlines as next-day and even same-day delivery are fast becoming the norm. “The e-commerce turnover only continues to grow and retailers will continue to grapple for their share. Emphasised business intelligence and in-vehicle technology will also be momentous, as retailers and their logistics providers look for ways to shorten the e-commerce-



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1. Supply chain technology propels the journey at each corner and every step.



"Collaborative real-time information sharing by our customers helps us plan our supplies significantly better."
- Jitendra Mahajan

2. Efficient material handling is crucial as it ensures quality, good condition and safe movement of goods.

connected aspects that historically push costs higher, like high fuel consumption and inefficient routing, which is what we have tried to overcome from this barrier by leveraging data from GPS and fuel sensors to build algorithms that optimise refuelling points, track any pilferage and select routes to gain optimum marginal benefits, in addition to trip-based allocation algorithms enabling auto allocation of nearest vehicles to ensure optimum asset utilisation and also minimise dry runs. Many retailers have already established e-commerce delivery networks. Conquering the art of cost containment will be the next step," says Sharma.

ROBUST CHAIN

Supply chain technology propels the journey at each corner and every step, making the product available at the right time and in good shape when it's needed the most. All cutting-edge supply chains have three common characteristics across the globe – Customer Centricity, Agility & Collaboration. A robust supply chain has the customer needs at its centre with the entire chain interconnected and interdependent to cater to this need in the most efficient and effective manner. In today's VUCA world, supply chain's ability to be responsive and be 'ready to change' in response to changing consumer needs has become a source of competitive advantage.

"At Marico, we believe that, any supply chain transformation that does not solve a customer need is not

sustainable in the long run. An endeavour to simplify the ordering process for our customers, challenged by our growing product portfolio and SKU list, led us to develop a simple web-based interface. This was the centre of all our subsequent changes in the planning and distribution process. Collaborative real-time information sharing by our customers, starting right from the retail orders through PDAs to billing data from the Distributor Management System, helps us plan our supplies significantly better," says **Jitendra Mahajan, chief supply chain officer, Marico**. Collaborative forecasting and setting up of EDI with large retailers have delivered significant improvement in Fill Rates with our retailers, placing Marico amongst the preferred vendors amongst the FMCG brands in India.

LOGISTICS LOG

The supply chain is a dynamic process. Products always keep moving as raw materials, finished goods or under development processes. It has to shift stages from machine-to-machine and from department-to-department. Therefore, efficient material handling is crucial as it ensures quality, good condition and safe movement of goods. "Failing to do so can incur losses in the form of warehouse accidents and worker's compensation lawsuits, increased distribution and storage times, and redundant work models. Enterprises are adopting automated material handling systems that reduce human errors and labour expenses. Logis-





tics, on the other hand, are deploying IoT devices to monitor and execute safe material handling, from the source of origin to the delivery point," avers Venkat.

Material handling does not create value; production does. Every minute spent moving, sorting, preparing or storing material results in lost productivity. "The best way to increase employee productivity, effectiveness and quality controls, safety level, productive capacity level, efficiency in receipt, storage and dispatch proper material handling is with a lot of pre-planning, which should begin with a systematic analysis of the nature of the handling problems at hand and reduce handling cost, space cost, damage for poor handling, labour cost, fatigue and production waiting time. On one hand, material handling is the solution for all," says Sharma.

MATERIAL MATTERS

Material handling, both warehousing as well as transportation, is undergoing a significant transformation, especially in India, with technology making a significant impact on the way transportation and warehousing is managed and the impact of statutory changes like GST. Technology has not only helped the logistics suppliers to come up with innovative solutions to customers problems, but also successfully improved efficiency and impacted the lives of some critical stakeholders like drivers.

"It has also helped increase visibility of vehicle movements, thereby identifying various opportunities of collaboration between customers and vehicle owners. Technology will play a major role in integrating the immensely fragmented logistics industry, particularly

the road transport. In the medium-term, GST along with infrastructure development will play a major role in redefining the Logistics and Warehousing network for many organisations. The same would again be a significant source of value creation," says Mahajan.

There is no doubt that material handling is crucial for any manufacturer. Even a small error can result in a huge loss for the organisation. "For example, for a bike manufacturer, it is imperative for him to know when to start the manufacturing process and when the product moves out of the warehouse. In case of any discrepancies, it can lead to the finished product turning into a non-moving liability instead of being an asset. This in turn directly affects revenue and thus businesses end up paying dearly for such errors," explains **Naval Sabharwal, global head, logistics & supply chain, Ramco Systems.**

CUSTOMER CONNECT

Supply chains are moving closer to the customer and facilities are moving closer to major urban areas, and e-commerce is the buzzword today. Increasingly, supply chains are getting integrated real time – from Order/Offtake at retail to replenishment and planning. Supply chains that stand apart are the ones that successfully use the information at each stage to respond and influence material and finance movement across the chain.

"The cost of transportation for low value items/low margin items is detrimental to the bottom-line. If a very low value item priced at Rs 6 per kg has to be transported to Jammu and the cost of transportation comes to Rs 6.50, the cost of sales becomes unviable. In or-



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THE WONDERS A SMART 3PL PARTNER CAN WORK

Problems in supply chain management can cause immense issues to companies. However, if companies can adopt an efficient methodology to ease some of the woes of bringing in an efficient system, it helps them to fulfil logistics obligations easily. One such efficient methodology is bringing in a reputed 3PL partner who has the wherewithal to offer solutions that can go a long way in meeting the company's plans. So when a client who encountered several bottlenecks in managing inventories, order processing, and transportation, approached **TVSLSL-DIESL 3PL Division**, the company was adept at taking up the opportunity to show them how a supply chain should be managed.

The client is a leader managing an extensive range of water and air purification and home cleaning products. The problems were manifold. The sales team required to manage and monitor inventories and deliveries which resulted in several challenges. Not only was the sales team overburdened with inventory management and transportation hassles, but faced different statutory requirements in different states besides having to deal with order processing challenges during weekly and monthly closings with midnight operations. Then there was the issue of high end load imbalance between different hubs, seasonal load pressure and lack of optimal network design. In terms of transportation management, the company had difficulty in choosing optimal modal

mix and vehicle type, and site delivery including unloading and receipt of delivery.

TVSLSL - DIESEL 3PL Division introduced efficient supply chain management solutions so that the client can refrain from spending time on warehousing and deliver related activities and concentrate on their core job. The results were astonishing.

This is what they saw: Warehousing cost reduction by 7%, on time delivery with 100% inventory accuracy for finished goods, 98% on time dispatch efficiency, consistent record of 99% POD submission and its compliance, 99% for spares along with proof of delivery (POD) ensured by skilled manpower, and more than 94% on-time last mile deliveries.

Effectively what this meant was productive utilisation of workforce, reduction in warehouse cost management, on time dispatch efficiency, 100% inventory accuracy increased overall performance with TVSLSL - DIESEL 3PL Division's efficient supply chain management services. All of this on the back of a technology driven real-time visibility being pushed to the brand, internal users as well as the end customers so that all stakeholders are simultaneously updated about the supply chain movements.

The end result: The client's sales team was able to concentrate more on sales rather than delivery and inventory management, which in turn led to increase in revenue.

SUPPLY CHAINS ARE MOVING CLOSER TO THE CUSTOMER AND FACILITIES ARE MOVING CLOSER TO MAJOR URBAN AREAS.

der to circumvent such situational disadvantage, what most businesses do to improve their bottom lines is that they either move to an area where suppliers and customers are located or they move to two or three different locations. We have therefore, established regional manufacturing locations in Dadra, Vapi, Jammu and Barotiwala in HP. All these factories cater to local demand and they also have some local suppliers to service our requirement of raw materials and packing materials. It is very cost ineffective to transport anything from Mumbai or Gujarat especially in case of low value items. Consequently, many enterprises have their businesses set up in closer proximity to both – their sup-

ply sources and their customers in order to avail better contribution on sales," explains **Harnish Juthani, president, procurement, Grauer & Weil (India)**.

LOOKING AHEAD

Logistics enterprises are leaping to the next step in supply chain revolution, particularly around trucking. Machine learning and behavioural analytics are bringing transformational changes to road cargo systems, facilitating safe transportation of goods through roads and highways.

"Close monitoring of raw material prices, hands-on on a daily basis or a very short periodical basis is absolutely essential. For large volume procurement, extensive reliance on strong ERP systems becomes a necessity for prompt alerts for corrective and controlling activities, which make inventory available on time and prevents fund lock-up in excessive inventories. Now, with the advent of user-friendly ERP systems, even smaller organisations can avail of its myriad benefits," opines Juthani.

IoT devices that alert drivers of a sleepy instance to guiding through secure and risk-free routes are the new talk of the town. Logistics entities should embrace technology and implement it at each of their workflow processes, and in turn, it will promise safer journeys, on-time delivery, and profitable business in the days to come and beyond. ■



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- Sumit Sharma