

DIGITAL REVOLUTION

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- 1. The global community is witnessing an unprecedented digital revolution with technologies like Blockchain, Machine Learning, Artificial Intelligence and Big Data taking the lead. Going forward in this decade which of the technologies will emerge and dominate shipping & logistics? How do you envision this influence your business?**

I believe industry leaders must go beyond the mindset of merely 'adapting' to digitalization; they need to embrace it! The logistics sector is going to be hugely benefitted from this change to digital systems. Today, we are focusing on data integration across different systems, minimizing clerical work by incorporating machine learning, and focus on ways to transform productivity. Technology will be the key differentiator among various logistic service providers. Customers are

preferring online system generated reports as they ensure transparency and accountability. Unfortunately, companies who do not invest in digitalization will become laggards in the long run since we are now dealing with unprecedented volumes of data and service-level integrations which cannot be handled manually.

ICDs and CFS across the nation today are highly focused on digital integration. Monitoring heavy equipment, trailers, cargo handling operations, container management, etc. are being performed online so that the management team has accurate data to plan effectively. With the container shortage issue all over the world, turnaround times are going to be vital, and digitalization will play a key role in reducing the additional time taken due to manual compliance.

We have been focusing on transforming our digital infrastructure since the last 5 years,

and we are seeing the efforts pay off. Once various service offerings are integrated, duplication of work has been eliminated. We are now able to track each operational movement from source or origin, along with reports of any major/ minor service failures. This enables us to pinpoint the root cause of any problem and focus on immediate resolution.

- 2. How will hardware and devices garner greater interest and will greatly influence our lives - Robotics, Internet of Things, Drones and Autonomous Vehicles?**

There was a time when our country had surplus trailer/ truck drivers. Now the logistics industry is finding it very difficult to find sufficient drivers for their fleet. This is a small example of how technology has changed the status quo. Today, drivers are preferring to drive app-based taxis where technology is ensuring comfort and safety. As we move to the future, we won't be having many individuals who would

be willing to perform mundane jobs. People want a sense of purpose in their daily work and technology successfully fulfils this very need.

GPS devices, RFID based tracking systems, electronic seals, etc. are some examples of 'IoT' devices that were considered a luxury earlier but are now a part of daily operations. As human beings, we are focusing on getting many things done at a very short time and technology is making this possible. In terms of autonomous vehicles, I still believe we have a long way to go for that in our country. However, surveillance of yards and sites using drones and monitoring of work through digital systems has made life much simpler.

3. Considering the evolving technologies, which are the skill sets that our industry requires to deal with the change? How organisations have to adapt?

In the past, we have focused on relationship and strong person to person interactions to get the work done. While personal touch is always going to be important in any business, it is no longer sufficient.

With the advent of technology and complex database integrations, we have to ensure that senior employees in the organization actively go through all circulars and notifications to stay updated. This creates a culture where knowledge is the primary driving force, and this mindset flows through the entire organizational value chain.

We operate in a highly competitive environment and need to find new ways to enhance employee productivity. Therefore, we must invest in digital systems and constantly perform skill upgradation of the workforce. Organizations have often neglected the human resource development and focused solely on operations. However, the time has come to now have effective human resource management to understand the skillset of each employee, and to devise ways to make the best use of manpower.

4. Where do you think BOTs will take over some human roles, like meetings, monitoring, and customer care?

BOTs have already taken up partial roles in setting up of meetings, sending reminders, automated system-generated reports for key processes. Whether BOTs will take over the entire role in handling customs queries remains to be seen. However, we can use BOTs to effectively screen relevant and non-relevant customer enquires where the relevant queries are passed on to the key human looking into customer relations. Non-relevant queries may be pushed to spam which can be cross-checked by an employee in the future.

Most of us have been working from home recently and have acknowledged the usefulness of technology in keeping the operations running. While I do believe that the human element will remain at the forefront in the service industry, machine learning and successful integration with AI at the back end will become a key differentiating factor.

5. Industrial revolution (IR) 1.0 replaced human and animal power with automation and mass production. IR 4.0 will replace human brain. Which are the industries/operations that will see a paradigm shift with IR 4.0?

The adoption of Industry 4.0 has already brought various disruptive changes in the industry. We have observed a steep decline in the sale of cameras, non-smart phones, fax machines, etc. These were items without which we could not imagine our lives in the late 90s and entire first decade of 2000s! Similarly, in the service sector we have seen a huge reduction in services of physical travel agents and telemarketers.

Although various above products and services are redundant in the current era, many companies involved in the above sectors are still thriving because they have adapted

to the shift and updated their product/ service catalogue. Moving forward, we can expect a huge demand for IoT devices and electric vehicles. With the rise in diesel prices, we are already observing a huge surge in purchase of electric cars in the west. With the advent of electric pick-up trucks by Ford and Tesla, we understand that boundaries are being pushed and in the future, we may see heavy vehicles running on electric power. This will also depend on how quickly India can build an infrastructure to support electric charging and maintenance of such vehicles. When it comes to the ICD/ CFS and CHA sector, the players must focus on seeing themselves as an extended partner of the customer instead of a 'service provider.' We have to adopt technologies and paperless modes of working, as well as equip ourselves with the latest knowhow to provide not just services but suggestions to the customers.

6. Will IR 4.0 and emerging technologies render the traditional education system obsolete? Is the time ripe to develop new education system and reskilling?

I will focus on the universities and institutes who impart knowledge on supply chain to budding youngsters. The Govt. of India is focusing on logistics skilling, and we have seen initiatives taken by Logistics Skill Council. Several companies now are partnering with LSC India for upskilling aspiring graduates from the supply chain sector. I do believe that practical knowledge will be the backbone of future learning. Theoretical knowledge is important to understand the basics of operations, but private institutes should tie up with organizations to have regular field visits for their students. Today, there are various students who still consider logistics sector to only consist of courier business thanks to the popularity of e-commerce. However, the knowhow of containerized movement and project cargo is still in the nascent stage amongst aspiring youngsters.

FEATURE - 5 (Contd.)

7. **Business models across sectors were earlier bottom line driven, but they are now changing to achieve market dominance. How will this change in business mind set revolutionise the competitive landscape?**

‘Cooperation vs Competition’- this is always an important debate when it comes to market dynamics! It is true that earlier, organizations were focused on internal cost analysis to ensure there is a standard pricing mechanism in place for the various jobs being executed. Now we are seeing that several organizations are willing to go much lower than market prices to gain market share. Profits were now ascertained based on volumes instead of per transaction model as seen earlier. I believe this changing mind set will not be fruitful in the long run.

As various companies slash their prices to gain market share, it is observed that customer priorities are shifting from high quality to low cost. Both parameters are important and should be considered at equal footing. I hope that logistics stakeholders work together to keep a minimum standard price for their services and cost should not be the only measure for selecting a service provider.

If we shift to a business model where customers only choose the service provider based on cost, then we will move away from being a knowledge dominated industry to a relationship-based industry.

8. **How do you see the business models evolve further - from bottom line driven to top-line driven to market share driven to valuation driven? What will be the futuristic financial models?**

Futuristic businesses will be based on valuation. Organizations will be judged on the basis of their brand value, infrastructure investments, CSR activities knowledge base of the key-persons in the firm.

9. **Virtual currencies such as crypto currency are gaining acceptance.**

- Will it bring a paradigm shift into our financial systems such as negotiable instruments?**

Presently, cryptocurrencies do not come under any regulations in India. This makes cryptocurrency a difficult proposition for Indian investors. However, there is a cryptocurrency bill under proposal, and we need to see how the whole scenario develops. While it is true that digital currencies disrupt the central bank model of transaction and trading, the government’s scepticism towards cryptocurrency does not help imbibe confidence amongst early adopters.

10. **As Blockchain technology offers end-to-end visibility and security in the documentation process, it is expected to make certain professions like audit obsolete in the near future. Your comments?**

As mentioned earlier about some products/ services that have become obsolete in the era of Industry 4.0, we will see certain professions become redundant as well. I feel that the focus has to be on revamping the employee hiring process. We rely a lot on references and personal connections to hire employees, and train them on the job. However, with the emergence of Blockchain technology, we must have a robust interview process which involves rounds with industrial psychologists, technical team, as well as logistics professionals. We must gauge the employee’s adaptability to understand how flexible they can be with the changing times. It is very difficult to predict which particular jobs may become obsolete in the future. The safe bet is to assume that every job role will see a transformation and we need to focus on developing our employee skill sets accordingly.

11. **Work from home has become the new normal and employees especially in the IT sector are now rebelling the idea of returning to office. How do you see the concept of work from home transform the operational landscape of businesses?**

It is true that the COVID pandemic has introduced the concept of ‘work from home’ in most of our lives. In the logistics industry, we could never imagine working from our home in different locations. However, we have seen that human beings come up with unique and innovative solutions when they are left with no option. The pandemic has definitely highlighted the importance of digitalization and many employees, especially the youngsters are enjoying the ‘work from home’ concept as they spend less time travelling. However, the logistics industry will always require physical presence as it involves handling physical assets such as forklifts, reach stackers, trailers, as well as physical documents which are required to be submitted to various authorities. We see that there is an improvement in terms of taking reports and updates, when working virtually. However, physical presence is very helpful when it comes to brainstorming, interpersonal interactions and operational analysis.

12. **Another significant trend is consolidation of businesses and industries with models for global domination across multiple segments simultaneously. How should the businesses prepare to face these threats?**

We are seeing various takeovers and mergers happen in recent times. Bigger players are strategically taking over regional businesses with a view to increase turnover. We are also seeing the major players moving into different industry sectors. I believe this is being done with a view to generate multiple streams of revenue and minimizing the risk of over-dependence on any single industry.

Regional players that are constantly investing in infrastructure and have been in the industry for a long time are feeling vulnerable due to the predatory prices being introduced by multi-national firms. The only way left to face these threats is to continuously upgrade employee skilling and have strong knowledge of regional activities.

13. The turn of this decade has seen rise in Oligarchy. How will it impact business and governance?

It is not good for a small group of people/ firms to have control over any specific industry. In the long run, pricing will be controlled by a small group of firms which would not be good for the country.

14. Our personal, social and professional lives are totally dependent on the Internet. The internet bandwidths are continuously increasing beyond 5G and 6G. Over the years how do you see the digital highways and connectivity evolve?

Digitalization is taking place at breakneck speed. Every year, we are seeing the digital scenario transforming with firms becoming increasingly dependent on cloud computing and cross- functional digital integration. During the launch of 4G, consumers felt that this was the fastest connectivity required and all their needs would be met. However, we have noticed how modern technologies have evolved and now 4G is no longer sufficient to meet the requirements. I hope to see 5G launch soon in our country, but we have to be concerned about the various cases of data theft coming up. Data integrity and protection must be non-negotiable, and we must not compromise on data security to achieve fast connectivity.

15. Following the US-China trade war and impact of the pandemic, businesses are opting for near sourcing which will replace the traditional longer supply chains. Your comments?

Our government is constantly focusing on 'Vocal for Local' because we have seen how dependency on global supply chains can lead to shortages amidst a pandemic. We have seen container shortage issues arising due to the congestion at various major ports. The US- China trade war has peaked during the past US administration, and we have seen countries becoming vary of the predatory pricing strategy of China.

However, India still remains a major business partner of China with our imports from China continuously on the rise. I feel it will take time for us to completely adhere to the government's call for a 'Atmanirbhar Bharat' as presently, various raw materials are being imported from China to manufacture Indian goods. How the trade wars evolve in the new US administration is something for us to wait and watch as it will indeed influence global supply chains.

16. How will the digital governance and management change over the years?

Digital management and firewall protections must be looked at with utmost seriousness. In the past few years, various companies have lost their data or have had their systems attacked by 'Ransomware.' A strong and competent technical team is needed in every firm to monitor and manage data. Reliable cloud computing partners must be selected to ensure data can be retrieved in case of any issues. The IT department of a company should no longer solely focus on fixing basic troubleshooting. A comprehensive IT policy with routine checks and server maintenance is necessary.

I believe associations can play a major role in handholding their members for effective digital governance by adopting skill training programs.

17. What will be the future scenario in terms of democratisation of data and privacy standards?

Publicly available data should be accessible to all interested people, irrespective of their IT knowledge. It has been observed that mediums like WhatsApp, Twitter, etc. enable users to share Public Notifications, Circulars, and other regulatory information with a click of a button. However, we must also be aware of false rumours and incorrect information that is being spread to millions of users in a matter of seconds.

I have already stressed on the importance of data privacy. We must not compromise on data privacy as it is a non-negotiable tool. Advancements in digitalization is necessary but data privacy has to be at the core of all future initiatives. Data authentication is very important in industry 4.0 and hopefully mechanisms are developed for easily verifying correctness.

