## INDUCING DIGITALISATION IN INDIAN MARITIME SECTOR

The digital footprint in Indian businesses is growing, especially, in the banking, hospitality and airlines sector. Despite several initiatives, ports and shipping companies in India have a long way to go to develop an infrastructure embracing modern technology, which would help them in improving performance to global standards.

The importance of the shipping industry, especially in context with the logistics and the port sector, cannot be undermined. However, not much advancement was seen in the Indian shipping sector until the Ministry of Shipping introduced the Sagarmala Programme in 2015 to give a boost to trade through shipping, thus, reducing the country's logistics costs. Four pillars were identified under the programme, viz., port modernisation & new port development, port connectivity, port-led industrialisation and coastal community development. Recognising the benefit of optimising India's long coastline and its vast network of inland waterways, the government recognised coastal shipping & inland waterways as the fifth pillar of the Sagarmala Programme.

There has been a considerable improvement in India's position in the logistics performance index. However, there is more that needs to be done in terms of digitisation and subsequent digitalisation. Complete digitalisation will take time considering the enormity of the tasks involved. However, a gradual and steady move towards the same has induced in better coordination between the logistics stakeholders and government authorities, thereby, resulting in increased operational efficiencies and better utilisation of existing assets. This means that in the coming five years, the government will enjoy the ease of doing business with the various shipping lines.

Despite numerous projects having been initiated and implemented under the Sagarmala Programme, the ocean freight sector remains relatively backward. This may be attributed to the lack of skilled manpower needed to adopt digitalisation and adapt to its nuances. Compared to developed countries that save millions of dollars each year by eliminating the use of printed documents and using blockchain solutions to ease customers' experiences, the Indian shipping sector is yet to take necessary strides in this direction. It is estimated that at present not more than 50 per cent of the Indian shipping industry is submitting documents through electronic means.

## ADOPTING DIGITAL TRENDS

When it comes to taking on digital capabilities, non-major ports are taking on the government-owned major ports in terms of technological advancements and automation of the industry. Warming up to the idea of privatisation has allowed them to experiment and tie-up with numerous players including technological start-ups that promise innovation and swear by technological disruption.

The digitalisation of the various processes has enabled seamless coordination between the shipping lines and customs while ushering in the regulation of the activities at the various container freight stations (CFSs),

inland container depots (ICDs) and port terminals. Technology has indeed induced transparency in the various processes while lowering their costs.

Considering the massiveness of the Indian shipping industry, the endless opportunities available, the immense potential to create job opportunities, the unparalleled contribution to the country's economy and the unending technological possibilities, it has become important to adopt digital tools that will help in the industry turnaround. Optimum use of advanced technological tools is imperative at every stage including planning, operations, commercial and providing support functions.

Over the past few years, the incumbent government has shown interest in adopting new forms of technology. Ports are designing business models keeping in mind how digitalisation will not only lower operational costs but ease real-time tracking and tracing of shipments, chassis, etc. Improved technologies are hassle-free and cheaper, thus, ensuring greater visibility and transparency to the logistics chain. More than simply noticing new technologies and merely adapting to new technological trends, the Indian shipping industry is on a spree to create new technologies that will eventually open the door to new opportunities in future.

While many technological innovations have caught the fancy of both major and non-major ports in India, a select few like the Blockchain, the Internet of Things (IoT) and artificial intelligence have advanced ahead of others. Real-time tracking of containers has been made possible with IoT while the introduction of the sensor system will increase the ports' functioning apart from reducing their waiting time.

## SHAKING OFF THE OBSOLETE MINDSET

The fear of treading a new path or forging original ways is always there. A stuck-up mindset impedes progress. Restricting oneself to the traditional mindset simply out of habit has ushered in technical inefficiencies, causing loss of time and money. Pushing both the government and the shipping sector to adopt a robust mindset is key to doing away with its intrinsic complexities that come in the way of the industry's need to adopt a digital framework for all its processes.

Unavailability of port manpower expertise is another bottleneck to the self-advancement of Indian ports through technology. The government recognizes the need to impart strong training and skills development strategies for the shipping sector's progress. Besides, training crew members and coastal communities will ensure more business and improved living for people living at or near the port. The need for unbridled end-to-end logistics connectivity has already prompted the Ministry to invest in maritime training institutions that impart necessary training as per job specifications.