optimising data for shipping

Stephen Chow, founder of data analytics start-up Sense Infosys,

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Digitisation and data analytics have unlocked the door to the brave new world of smart ships and smart shipping.

"Without digitisation and its corresponding data, there would not be any analytics. It is humanly impossible to access multiple sources and process voluminous data. Today, advances in cloud computing power and more affordable ship-shore connectivity present opportunities for realising the concept of smart ships and smart shipping," says Stephen Chow, founder of Sense Infosys, a Singapore-based maritime and risk data analytics company.

"Advanced information, if made available, can establish comprehensive and shared awareness for knowledge-driven decisions. All these are only possible when ship and shipping data are harvested and harnessed."

Sense Infosys provides customised analytics solutions to the maritime and risk domains, and serves both the public and private sectors. Its maritime solutions, based on its proprietary data fusion analytics technology platform, include anti-fraud and compliance monitoring.

During Sea Asia 2017, Sense Infosys will be rolling out a maritime community platform to connect global maritime professionals, maritime content, and advanced analytics apps. Called Teraweave, it will offer a wide range of complimentary maritime business applications, and enable app developers to access maritime data to develop and market analytics apps.

Chow says that the maritime domain is in the early stages of data growth due to the emergence of more modern and digital ships, relatively more cost-effective broadband satellite communications solutions, extensive Internet penetration, and the rise in mobile technology.

He says: "However, maritime data analytics will inherently and comparatively be more prohibitive due to higher broadband communications and connectivity costs. Hence, even if there is immense potential, maritime data analytics adoption will always be a laggard compared to the other domains."

This means that at the start, data analytics is more likely to be applied on board ships within port and coastal waters, tapping land-based communications solutions such as Wideband High Frequency (which allows exchange of large amounts of data over high frequency channels) rather than using ship-to-shore communications.

Source: https://www.mpa.gov.sg

SMART BENEFITS

As it stands, data analytics in the maritime domain today can be used to provide real-time insights to support awareness and decision-making in fleet management, compliance and risk management, and logistics and corporate planning, to name but a few. Over time, as more data is built up, advance predictive analytics can be developed to make anticipatory decisions in maintenance, supply chain, and resource optimisation, says Chow.

Data analytics can be particularly useful to the shipping industry today, which is facing challenges. He says: "If a company can use data smartly to manage risks and costs, plan better, and operate more efficiently, it will enjoy a competitive advantage. Another area is compliance, as the cost of non-compliance is increasing. With data, a ship can automate compliance processes and be more accurate in its reporting. This will save time, manpower, and costs significantly, as authorities focus more on those with compliance risks."

By making smarter decisions with the help of data, shipping companies can look to improve both their top and bottom lines. "They can use data to scan the horizon, and be more anticipatory of and resilient to shocks. With further digitisation and more data, automation, disintermediation, and economies of scale in every facet of shipping will follow. All this will result in right pricing of services and realising the immense potential of harvesting big data to save costs," says Chow.

Despite the benefits, there is still some resistance to applying data analytics in shipping. However, Chow is confident that this will change as crew who are better educated and need to remain connected to the broader world join the industry. In addition, he notes that parts of the maritime ecosystem have already gone digital.

He believes that governments and maritime and port authorities are best placed to catalyse change and bring about transformation in the industry. "Policies ought to be structured such that those who adopt data analytics faster than the rest are given an advantage," he says. In the longer term, tertiary institutions with maritime, shipping or logistics disciplines can be fertile ground from which to effect a new mindset that is willing to adopt data analytics technology, he adds.

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