

DEVELOPING AN E-COMMERCE ROADMAP FOR THE SHIPPING INDUSTRY

by Badrinath Setlur, Assistant Vice President, Enterprise Application Services Consulting, **Cognizant**



Rapid advancements in the adoption of digital touch-points, combined with significant reduction in technology and infrastructure costs, including that of last mile connectivity, have given rise to an ecosystem of connected commerce. Due to changes in customer behavior, companies selling products and services have been forced to adopt digital platforms, applications and processes. This, in turn, has allowed businesses to benefit from automation and collaborative models for shared access to timely and quality information.

This is true for the shipping sector as well, where the new wave of digitisation has caused far-reaching ripples. It is now imperative for every shipping company to evaluate its status-quo business model and chalk out a roadmap to digitise its operations and services to establish better customer connect and optimise costs. This is expected to have a profound impact on global shipment execution, trade management, shipment visibility, and trade compliance capabilities on a unified platform.

Embracing e-commerce's intricacies & tackling challenges

A study of global CXOs of shipping liners, agents and global freight forwarders, technology providers and industry analysts has revealed that most stakeholders recognise the significance of what is beginning to be labelled as “connected shipping” and have already commenced their journey on the digital path. Three-fourths of the respondents agreed that e-commerce is ‘business-critical’ for their organisations over the next three to five years. More than half of the respondents have an e-commerce solution in some stage of development.

However, while most companies acknowledge the criticality of e-commerce over time, many are proceeding cautiously. This is because investment decisions are largely driven by ROI considerations — making it hard to justify e-commerce spend in what is already an asset- and capital-intensive industry. Most respondents cite adequate IT infrastructure and implementation skills as a significant challenge. The study has also

revealed that the industry is being dogged by the lack of process automation and data quality issues within their value chains. For 44 per cent of the respondents, having a scalable IT infrastructure in place to meet future demands from a digital business model is a critical challenge.

How can shipping companies overcome these challenges and truly reorient to serve the new digital landscape of their customers? The first step in embarking on an e-commerce transformation roadmap is an assessment of the current state. Shipping company stakeholders must base their assessment on the following key functions along the value chain: capacity planning and forecasting; order management; shipment planning and scheduling; and supply chain visibility to freight invoicing management and analytics. Using the Connected Shipping Maturity Assessment Framework (image below), a shipping company can assess where its critical functional processes stand within four dimensions of maturity: Defined, Managed, Optimised and Transformed.

	Defined	Managed	Optimized	Transformed
Capacity Planning & Forecasting	Organization does not perform any systematic planning and forecasting activity.	Capability to analyze historical trends but does not possess any capability to perform effective assets forecasting.	Capability to perform assets forecasting based on historical trends, but no scenario-based planning.	Capability to run "simulated" full-stream supply/demand balancing for "what-if" scenarios.
Order Management	Completely manual documentation, quote generation and review; e-mail based RFQ response.	RFQ and quote generation process supported by broad response templates; requires significant review by managers prior to finalization.	RFQ response generation, quote generation supported by internal knowledge portals and extensive, ready-to use templates; limited review and quick turnaround.	RFQ process linked to the document management process reduces cycle time. Quotes generated automatically regarding contracts maintained for customers.
Shipment Planning & Scheduling	Manual process for planning shipments.	Stand-alone planning software.	Planning tool used to support manual process. Plan to meet delivery scheduled date/time.	Automated planning tool provides optimal cost and service solution when dynamically processing all shipments.
Supply Chain Visibility	No event management mechanism in place; carrier informs the base location only in cases of exceptions.	Carrier updates are done periodically, based on milestones covered in a particular shipment.	Maintains a portal where carrier can enter delivery details that can also be used to track carrier performance.	Carrier and lane status are regularly updated. Online coordination of routing/scheduling. End-to-end visibility of cargo by providing BOL, cargo ID, container #, order #.
Freight Invoicing Management	Invoices are generated manually and consume significant time and effort. There are discrepancies in estimated invoices due to customer calculations.	No direct capability for electronically generating invoices; however, templates are used to aid in estimating and generating invoices.	Capability for electronically generating invoices exists; however, this is not extensively used due to lack of verification features.	Invoices are usually generated electronically; supported by features for invoice verification. Shipment costs are automatically calculated at time of optimization and are transmitted to financial systems to be used in invoice matching and settlement.
Analytics	Only ready-made reports from various systems are available.	Capability to configure reports based on business requirements.	Interactive reports with drill-down ability is built, but capability restricted to the IT admin. users.	Business users can build interactive business-level reports (tables, charts) that provide status along transportation KPIs and support drill-downs into more report detail to determine root cause.

Source: Cognizant Technology Solutions

Connected Shipping: A Maturity Framework to Assess Current Capabilities

wide-range of services and experience across different geographies and diverse clientele — giving them a broad view and vast knowledge of domains for developing business processes and solutions that can ensure shipping companies remain future-ready.

Cheaper devices, ubiquitous connectivity, rapidly transforming customer expectations, and an increasing breakdown of traditional business barriers are disrupting practically every business around the world. Shipping — which is the backbone of global trade — is hardly immune from this tide of changes. A timely transformation to adopt digital processes, guided by the right roadmap towards these outcomes, will help shipping companies ride up to the crest and stay there. 6

A current state assessment can help establish basic capabilities in process standardisation, data integrity and visibility before expanding further. It can also fully leverage technologies to automate all operations and critical business processes. This framework, developed based on the aforementioned research, can act as a guideline for charting a meaningful and contextual roadmap. Respondents' experiences and feedback provide valuable insights on the level of importance shipping companies assign to staying connected and becoming digital in the coming years.

Working towards a true partnership

Any e-commerce roadmap being prepared for digital transformation will not be complete without aligning business processes and key stakeholders. This is one critical area where several transformation efforts fail, and which must be managed effectively. It is important to enable collaborative business processes to support the exchange of data, events and documents. To successfully pivot to a

digitally-enabled enterprise, the company must facilitate true partnering through timely, accurate information-sharing and visibility.

An ROI-based approach to identifying and prioritising initiatives is essential to generate sufficient buy-in from leadership. In the process of defining a business case, companies can benchmark their business KPIs to focus on an action plan for moving towards a fully matured business process stage. This also enables a laser focus on key outcomes from the transformation process, and ensures such efforts do not deviate from the scope or budgeted outlays.

Shipping companies may not always have the necessary capabilities to effect all this change on their own while continuing to run their businesses as usual. They can seek the expertise of third-party/IT service providers to gauge the business potential and chalk out a roadmap for implementing digital solutions to meet or exceed industry expectations. Third-party/IT service providers come with a



About the Author

Badrinath Setlur leads Enterprise Application Services (EAS) consulting at Cognizant, a global provider of technology and consulting services. He has more than 23 years of global experience as a management consultant, manufacturing industry specialist and business consultant in IT services.