



SPEEDING AHEAD

THE EFFECT OF E-COMMERCE ON TERMINAL OPERATIONS

By Kris Kosmala, Industry Thought Leader, Rotterdam/Singapore

Barely an hour goes by without humans engaging in one or another form of e-commerce. It changed how we interact with banks, telecommunications, a plethora of service providers, and most importantly, how we buy things. Our vision of e-commerce is embodied by a small package that travels fast at the touch of the checkout button in the e-commerce site.

BEYOND BORDERS

This new concept of buying experience demolished physical stores and introduced us to the concept of omni-channel blending offline, online, and logistics to create seamlessly integrated business environment out of previously distinctly separate spaces. E-commerce knows no borders. It crosses them without trouble, enables payments in any imaginable form, and uses information technology instead of humans to provide reliable and highly effective customer service.

Most importantly, e-commerce in goods is no longer a matter of a small package

arriving via express parcel logistics truck. White goods, furniture sets, or complex machinery is bought over the internet as easily as a small trinket. This is still retail, have no doubts about it. Except now, it plays out across many different planes reflecting customers becoming perfectly comfortable with taking their shopping globally in pursuit of a broader assortment of products, perfect product fit, low price, and guarantee of receiving it by the agreed date. In the process, logistics of delivering product to the buyer got outsourced and virtualised, allowing e-commerce company to use information technology to orchestrate logistics of product movement from the producer to the buyer, practically removing any need for intermediary mass inventory locations.

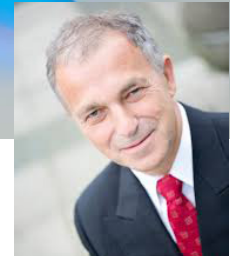
CHALLENGING ASSUMPTIONS

All this e-commerce activity creates and leaves plenty of digital data footprints allowing machines to keep evolving logistics networks of real estate assets, providers

and services. Two e-commerce giants, Amazon and Alibaba, did more innovative things in logistics in the last 10 years than all logistics companies combined in the last 40. In their process of continuous innovation to cut the complexity and cost of logistics, they challenged every assumption made by transportation companies, freight management companies, warehousing companies, and transport hubs including seaports, dry ports, airports, and road cross-dock depots.

While airfreight claimed the small package logistics, maritime terminals are claiming the larger goods. Whether they know it or not, the terminals are part of the logistics revolution. They can't remain oblivious to the evolution instigated by e-commerce powerhouses. Most important factor challenging every assumption of terminal operation in the world of e-commerce is the speed of deliveries and precision of logistics execution.

If you are an old hand in managing



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a container terminal, you may be of a different opinion. You might think that what's in the containers is not your business. It is a problem for freight forwarders and carriers. In that view, the terminal is only about the efficiency of physically moving the boxes between the ship and the truck gate of the terminal in the shortest possible time. The world of small express parcels is not the world of container terminals.

This view is also dangerously wrong. The relentless pursuit of delivery speed and shortest paths between buyer and seller by e-commerce will find a way around the terminals if they don't take any action. Fortunately, with help of some creative thinking and a healthy dose of modern information technologies, the terminals are perfectly positioned to deliver what pure digital services won't be able to do. For as long as sea transport of e-commerce is in the picture, there is a perfect combination of know-how, physical cargo services and digital solutions that can be put to work. Granted, it is outside of the comfort zone of a many terminal operators, but that's the nature of e-commerce. Companies like Amazon and Alibaba changed how we perceive waiting time for the purchase to arrive and terminal operators should take a note of that.

Theory aside, demonstration of actual examples of how "doing Amazon" could work is priceless. Of many creative ideas discussed among the terminal operators, the Singapore-based operator PSA moved most aggressively into the e-commerce supply chain space. Their clever thinking is worth considering and emulating where it makes sense.

KEEPING IT COOL

The first example involves e-commerce of chilled lamb from New Zealand. It is expensive to move chilled lamb by plane. The PSA terminal in Singapore considered how a hybrid air and sea solution could be attractive to buyers of chilled lamb, considering total logistics costs and transit time. The solution provided acceptable transit time at a substantially reduced cost comparing to air-only option. The lamb moves by air from New Zealand to Singapore, then by sea to Europe. PSA assures synchronization of sea and airfreight terminal services throughout the journey. The lamb arrives fresher and, being chilled not frozen, it commands higher margins.

PSA didn't stop at the physical handling of this special cargo. Recognising that moving temperature and time sensitive cargo end-to-end requires orchestration of physical resources of multiple partners, necessary documentation, and orchestration of port and airport terminal services, PSA



developed port and trade specific software applications made available on a single digital platform. That huge step outside of the comfort zone of running business on TOS enabled PSA to offer management of the whole transaction from cargo booking and documentation from origin to destination, through export and import permits, health certifications, all the way to delivery arrangements.

FROM RAIL TO SEA

The second example involves e-commerce of bulky goods manufactured for e-commerce companies in China and purchased by buyers in South East Asia. Shipping by air is out of the question. Shipping by sea requires barging the goods to Shanghai transloading for onward journey to Singapore, then transloading for regional distribution. PSA decided to offer e-commerce companies an alternative reducing total transit time by 60%.

For the physical part of the solution, it negotiated movements of orders by rail from Chengdu to a sea terminal in Qinzhou, then transport by sea to Singapore. The clever bit came from deploying a single digital platform allowing e-commerce companies, rail company, carriers, and two sea terminals to orchestrate all physical and logical aspects of cross-border goods transport. The net benefits to e-commerce companies come from lower logistics costs and shorter transit times.

DIGITAL PLATFORMS

In both examples, possession of a digital platform coordinating multiple terminal operators and all cargo-related transactions is the key to successful execution. The terminal operator met challenges posed to it by e-commerce companies and demonstrated how thinking of physical moves, services, and digital transacting on a single platform together creates value for the e-commerce ecosystem. Build out

of those terminal-owned digital platforms will be the ports' next frontier. It gives them far more control and say, than simply becoming members of the platforms offered by the carriers.

Using TradeLens as an example, ports can belong by giving up data and receiving some other data back, but the carriers get all the benefits of orchestrating the moves and transactions for the BCOs. By doing so, they can easily disintermediate terminals as they create optimal cargo moves benefiting BCOs and themselves, but not any particular terminal on the cargo itinerary.

If you are a terminal operator operating multiple terminals around the world, the word digital platform should permanently enter your vocabulary on par with Terminal Operating System. The future and success of your terminal network in this rapidly changing world will depend on it.

ABOUT THE AUTHOR

Kris Kosmala brings many years of extensive global experience as a business operations executive in the services and technology industries. He provides independent management consulting across many segments of maritime industries. Previously, he has held senior roles at global organisations specializing in supply chain and operations optimization including Quintiq, Royal HaskoningDHV, and Oracle. He regularly speaks at industry events and features in industry media discussing application of the latest information technology and automation innovations in business and operations related to global supply chains.

ENQUIRIES

kriskosmala@yahoo.com