Port centric logistics

Providing competitive advantage for gateway ports

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Port centric logistics needs little introduction

There are a few things about port centric logistics (PCL) we should clear up at the beginning.

Firstly, there is nothing new about the concept of PCL – most port managers would say that ports have provided warehousing and lot-specific deliveries forever. And they're right. What's changed now is who is asking, why and what they require.

Secondly, PCL is not about using valuable port land for value-adding activities. In fact, the biggest benefits of PCL might come from locating just outside the port curtilage. Finally, PCL is not a viable proposition for every port. If you operate a pure transhipment hub, with no or minimal gateway traffic moving into the hinterland, then PCL is not necessarily for you. Some of the rationale and principles behind PCL may still apply, especially those relating to energy use and avoiding waste, but little else.

PCL is driven by a number of desirables:

- The imperative of reducing costs across the entire supply chain – be it global or regional
- To add certainty to delivery times and undertake timely quality checks, and
- To respond to societal pressures.

There are other reasons, of course, and we'll come across some of them as we develop the theme in this paper.

Supply chain pressures

Our world is changing and these changes are becoming increasingly unpredictable as economic conditions buffet producers, consumers and transportation service providers from every direction. Who would have thought in those heady days of 2007 and 2008 that the large, so-called 'fast' container ships would now be plotting how to steam at speeds where they could be overtaken by the Clipper sailing-ships from almost two centuries ago ?

This, along with the manipulation of slot availability by hard pressed liner operators, has simply added to the woes of shippers and their global logistics providers, because on top of everything else, that elegant JIT system of having a continuous production line providing an optimum inventory exposure has just blown out of the window. So now that the shipper cannot rely on fast deliveries, there is a greater need for certainty; certainty of knowing when the consignment is going to arrive and certainty in the knowledge of the condition of that consignment. Who is going to provide this service and how will they do that?

In the UK context, the conventional wisdom was to take the containers to the 'golden triangle' for consolidation and onward despatch to satellite distribution centers or to the processor. This involved a laden journey of the container and an empty haul back to the port for restitution. PCL enables the 'system track and trace' to be augmented by 'mark one eyeball' to report consignment received, checked and the quantity and condition confirmed at a point that is much more local to the port. Note again, not necessarily inside the port, but co-located, so as to minimise and perhaps even avoid the 'inspect and confirm' transport leg.

Cost pressures

Rising energy prices, but perhaps more importantly volatile energy prices, are adding to this uncertainty. Everyone is looking at ways to reduce fuel consumption, avoid unnecessary journeys, avoid carrying less than full loads and increase rail and, preferably, increase sea miles over road miles. The same goes for multiple handling. Every time someone touches a container or consignment, it adds to the risk of damage or loss - on top of increasing the cost.

PCL allows the shipper or his global logistics partner to pre-plan bulk deliveries of containers from the port, turn-out in the security of their own premises- adjacent or co-located to the port using their own trained staff- and return containers without the risk of incurring demurrage and damage. Reports to the cargo owner, at this point, carry the certainty of consignment having been received in correct quantities and in sound condition.

The theory behind logistics strategies for major importers looking to reduce supply chain costs are already pretty well known. Robert Leachman from the University of California, for example, described the options for large US retailers importing products from Asia.

The 'push' strategy is appropriate for low value goods to reduce transportation costs. Importers make their allocation decisions when the product is still in Asia. They ship the containers intact through a US seaport and on to an inland distribution center before they decide the final destination.

The 'push/pull' strategy is employed to reduce inventory carrying costs. Consumer goods imported through a major gateway are trucked to a nearby distribution center where they sit until the retailer determines where in its regional network the product will end up.

But what about strategies for the port? Traditionally, the port's customer for most non-bulk products has been the shipping line. This is especially true on the burgeoning containerised trades. Deeper and wider channels, 1 kilometer long clear quays in a straight line, rail-mounted ship to shore gantry cranes (extending from handling just a few containers across deck to spanning 22 rows of containers) and large yard to store containers, which are sometimes stacked up to six high. So the shipping line, quite rightly, has determined the development of container terminals. But who would deny the inherent lack of stickiness of a shipping line's custom? Most port managers would testify to the experience of being told that a line would gladly call at his terminal – no problem with facilities, productivity, reputation and perhaps even rates – but they need their customers to want them to call at that terminal. And no prizes for guessing what the cargo owner customers say: yes, we would happily move our containers through your facility but our shipping line of choice doesn't call there.

So, here's the strategy now being followed by new container terminals servicing a sustainable hinterland – be it national or transnational – the 'pull' strategy. If you are building a terminal,

or expanding an existing facility, in a location that can service a significant hinterland, then look at what DP World are doing at London Gateway, look at the development of storage facilities around Felixstowe South and in Busan New Port read again the comments made by Forth Ports management, extolling the benefits of having large warehouses in the vicinity of their newly acquired 100% ownership of London Container Terminal.

The subliminal message from each is that they are providing first-class facilities for cargo owners and for the global logistics providers whose influence is rapidly gaining traction. These global third party logistics are increasing their share of the global container trade and require cost effective facilities for their mixed bag of customers who all demand that costs be taken out of their supply chain and, at the same time, that service reliability is improved. More and more of the larger importers are demanding greater transparency in the structure of supply chain costs and, perhaps even more importantly, greater confidence in cargo availability.

The large warehouses, which are co-located to deep-sea container terminals, provide just this. The container terminal operators are hedging their bets by providing the excellent facilities for their important ship-owner customers, and also making sure that their cargo owner customers get what they need. If a number of large cargo owners are co-located to an efficient deep-sea container terminal – where is the shipping line going to go? This is the terminal operator's 'pull' strategy – provide facilities and have the cargo owner on site (so to speak) and the ships will come. This is the essence of PCL: provide transparency, reduce costs, reduce waste and provide certainty, for all the parties.

Societal pressure

The final thoughts on this matter reflect the pressure that a provider of goods faces. As consumers, we not only demand our household goods and consumer items at low cost and in perfect condition, but we want it on time and we want the producer to demonstrate that his carbon footprint is not excessively wasteful. Annual reports and CSR publications now require global multinationals and large producers to report on the carbon emissions arising out of their business, especially from their transportation choices. This so called 'green' argument is also driving the concept of PCL and has been enthusiastically embraced by the global logistics providers as a way of helping their clients (the cargo owners) to report continuous improvement in carbon emissions.

Witness the GoGreen programme instigated by Deutsche Post DHL, which is committed to increase the carbon efficiency of the company's operations and those of its subcontractors by 30 percent by 2020, while also helping customers achieve their (own) sustainability goals.

Container terminal operators are included in the catch-all phrase of 'subcontractors' and will not be able to avoid the scrutiny of third party logistics companies acting for their principals for much longer. These global logistics providers are skilled in cost effective logistics flows and have mastered the art of Value-Stream Mapping and now commonly employ Six Sigma black belt practitioners. Amongst other things, they will have an 'interesting' view of the common practice of shuffling and re-shuffling boxes in the yard (which is euphemistically called 'house-keeping'). This is 'waste' which arises due to ineffective yard management systems and, more commonly, due to untimely requests for deliveries. This is an additional terminal operating cost which can be effectively tackled by a customer using the PCL concept.

Summary

There remains some confusion about the meaning and application of PCL and this short paper has tried to remove some of the mystique and to correct any misunderstandings. The benefits of PCL are undeniable, especially when faced with the problems of ageing infrastructure of large distribution centers located in the 'golden triangle' of distribution centers in the UK. The benefits are improved visibility of stock; faster availability of stock once landed in the port; direct delivery to market avoiding wasteful double handling and empty hauls and enabling order fulfilment direct from a port-adjacent site.

However, PCL is not a panacea for the container transportation industry. There are even more pressing problems which must be confronted, and PCL may not even be appropriate for the ultra-large container transhipment hubs operated by shipping lines. But if you handle gateway traffic into a hinterland, then PCL ticks all the boxes for all your customers.

ABOUT THE AUTHOR

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ABOUT THE COMPANY

Port Centric Logistics Partners Ltd (PCLP Ltd) is a UK based advisory firm operating in the global logistics and port-related economic development fields. They build value for clients in the public and private sectors by developing the business case for investment into logistics hubs. The business case is built on forensic market analytics, logistics infrastructure appraisals, supply chain opportunities and a clear market proposition. The PCLP offer is built upon our extensive knowledge and experience in the fields of global logistics, supply chain efficiencies and port-related economic development.

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