The missing link: successful inbound supply chain management

The inbound supply chain has untapped potential for controlling workflows and improving procurement processes, argues AEB's Phil Lavin.

AUTHOR
Phil Lavin

SECTOR HIGHLIGHTS

Supply Chain

Freight Forwarding

We all know and regularly experience that today's global supply chains are growing increasingly complex and more complicated to manage. Improvement measures often target isolated areas and in an effort to increase supply chain efficiency, many companies focus on distribution logistics and on optimising their outbound process chain, as it represents the direct link to the end-customer. However, they tend to overlook the untapped potential of the inbound supply chain, which extends from the suppliers to the in-house production centres of industrial enterprises or the logistics centres of retailers. Its management – that is, controlling all workflows, from procurement and goods receipt to the supply of production or distribution centres – still holds huge potential for optimisation. There are five specific areas that warrant particular attention.

Above: The production of the Toyota Corolla in Mississippi, USA, has led to a rebalancing of the supply chain, which enabled Toyota Motor Engineering & Manufacturing North America, Inc. (TEMA) to redesign its inbound routing to gain efficiencies in its supply chain

Inbound transportation management

Focusing on outbound shipments alone to optimise the supply chain, reduce costs and increase efficiency simply is not enough to achieve a comprehensive supply chain strategy. Longer delivery routes based on the growth of international procurement, together with high transport intervals resulting from lower inventory levels and supply concepts such as just-in-time, make inbound shipping one of the most important cost factors in the supply chain. Rising energy and fuel prices, staff costs and additional charges such as tolls and environmental certifications also contribute to the overall costs, just as they do on outbound shipping.

More and more businesses – particularly in the USA, it seems – are discovering the benefits of organising and controlling their own inbound shipments, instead of leaving them to their suppliers. Retail giant Wal-Mart, for example, announced in 2010 that it would gradually take over control of its inbound shipments from its suppliers and manage its own fleet of trucks and regional carriers. Food and beverage multinational PepsiCo also organises its own inbound shipments in the USA instead of leaving them to its suppliers.

The main reason for taking such measures is the potential for significant cost savings. Large multinationals such as Wal-Mart and PepsiCo often handle much higher shipment volumes than their suppliers, so they can negotiate more favourable conditions with their carriers. Adding the inbound shipments also increases their total freight volume, giving them even more leverage in negotiations, as it gives carriers an overview of the entire shipping network, opening the door to comprehensive optimisations such as combined inbound and outbound shipments or all-inclusive milk runs. Such savings on the carriers' side can then be passed along to shippers.

Another benefit is that when suppliers control the inbound shipments, they often roll shipping and material costs into one composite supplier price. Companies that manage their own inbound shipments can differentiate between freight costs and material costs, enabling them to negotiate material prices and shipping prices separately. They can also calculate the true transport costs at the level of the stock keeping unit (SKU) and offer their own customers better prices.

When, then, does it make sense for a company to manage its own inbound shipments, and for which suppliers, routes, or regions? This is where freight management simulations can help by running various scenarios for managing a company's transport logistics based on previous data or forecasts to calculate the costs of assigning inbound transports to carrier A, B or C.

Freight cost management

In addition to simulations, businesses can also benefit from analysing their other inbound freight cost management processes – that is, the workflows associated with selecting, hiring, billing and monitoring their transport service providers. Respondents to a study by the Aberdeen Group[1] saw the potential to save up to 8.8% of their freight expenses through optimisation measures in this area. Areas that hold particular great potential for optimising freight cost management are: freight invoice auditing; freight cost calculation and carrier integration; successful, long-term partnerships with transport service providers; and the automatic reallocation of freight costs to controlling accounts, cost centres, departments and products.

Integrated loading dock management

Efficient management of transport processes is not just limited to a company's own premises. Loading dock processes, for example, are particularly challenging. In the retail and consumer goods industry, unscheduled wait times and even major inefficiencies in everyday inbound delivery and pickup processes are a matter of routine. Companies that manage their own incoming shipments typically have a much clearer picture of which goods are arriving at the production or storage facility and with which carrier. This information advantage can be fully exploited with the help of time slot management software that

Above: Phil Lavin

makes it easier to manage inbound deliveries and pickups at the company's own loading docks. The company's transport partners can then easily access the system at any time to check and book time slots.

This kind of IT solution allows businesses to manage their entire loading dock activities quickly and easily, assigning and reassigning specific time slots as needed and to see the big picture with regards to their shipping processes. They always know which forwarder has booked which time slot and which orders are expected in goods receipt at what time.

In the event of disruptions, whether it is due to the vagaries of weather, traffic jams or accidents, most systems provide automatic, proactive alerts if the booked time slot has been missed. This makes it possible to respond to the new circumstances immediately – for example, by sending the delayed truck to an alternative loading dock.

Inbound customs management

Customs barriers – whether physical or regulatory – can slow logistics processes down considerably. Navigating the flow of goods efficiently while complying with customs regulations is no easy task, particularly across global, multilevel procurement networks. For businesses that manage their own inbound shipments, it literally pays to organise their own import processes as well: a 2011 study by the Aberdeen Group[2] found that the cost of in-house import management was up to 85% lower than outsourced import management.

Ideally, import management is embedded in the transport processes to ensure there are no delays as a result of incorrect, missing or delayed import declarations. Businesses with high import volumes should aim to declare and clear goods through Customs electronically while they are still en route.

To help make this happen, it is a good idea to have the right customs software integrated into logistics processes. This is even easier if a company organises its own inbound transports through its own shipping or transport management system, which ideally is linked to its customs processes.

This type of IT support also leads to much higher levels of productivity and import processes that are much less prone to error. The Aberdeen study cited above found productivity gains of about 90% in import management when steps such as product classification or document creation are also automated. Such a system also makes it possible to share electronically the appropriate documents and information with suppliers, transport partners and customers.

Supply chain visibility and collaboration

Companies that organise their own inbound supply chain processes benefit from greater transparency over incoming shipments, their current status and any problems or delays; but all this depends on high-quality data, without which even the most sophisticated and powerful IT systems cannot operate at their full potential in the real world: the greater the distance to the supplier and the longer the lead-time of the goods in the procurement logistics process, the more important it is to seamlessly track incoming goods. Visibility or track-and-trace tools can help to monitor consignments over the longest possible time period, enabling supply chain managers to respond as early as possible to any problems.

How, though, can this information be obtained and consolidated? Unfortunately, there is still no uniform standard or language for exchanging information throughout the supply chain, which makes it challenging to integrate partners. A common solution

is to communicate using electronic data interchange (EDI), which involves the electronic, largely automated, software-to-software transmission of structured data using defined messaging standards. The EDI system allows the in-house system to transmit data to a supply chain partner's in-house system. Participating companies should agree on a common messaging standard, such as EDIFACT or ANSI X.12.

Some solutions go beyond EDI, because smaller companies in particular often do not have the technical capacity to communicate through EDI. Simple online portals combined with scanning or OCR solutions provide an alternative. They can be used to process shipping papers or order confirmations and extract the information from such documents. This way, a combination of purchase order and order confirmation can provide a good base of information and give an overview of the flow of goods, because the delivery date, goods and quantities are already known and confirmed.

The information extracted from paper documents or EDI messages can be collected in a centralised IT system, which then creates transparency on all resources, capacities, inventory and processes in the supply chain while supporting and streamlining the rapid exchange of information among the partners. The IT solution functions as a central hub, integrating all partners and systems and providing all relevant information in a standardised format.

Working with an exclusive, reliable group of suppliers is also helpful in establishing high-quality transport processes. It is much easier to calculate the individual links in the supply chain when the carrier uploads good, informative data to the system about lead-times and supply bottlenecks early on. This type of transparency offers benefits for a company's own downstream logistical processes, because the more precisely it can estimate which transport volumes will arrive at its production or storage facility and when, the better it can plan and co-ordinate its own downstream processes. This enables it to issue picking and stock removal orders with much greater precision and ensure the necessary resources are there when required – for example, the right number of staff to put away the stock. Not only does this streamline processes at the loading dock, it also makes more efficient use of warehouse resources and improves the overall co-ordination of the logistics chain.

Procurement logistics also benefits, because the potential for efficiency in the inbound processes is much greater when a buyer uses a pull process to call goods to a company's sites only when they are actually needed. However, this means all the upstream processes must run smoothly and be synchronised.

Summary

The efficient management of inbound supply chains has many benefits, including increased transparency across the process chain, greater control over the national and international supply chain, better capabilities for responding to unexpected disruptions, an improved quality of internal planning, higher cost efficiency and control, better information to pass along to customers, and the efficient utilisation of the capacities of service providers and carriers, which leads to lower prices. The right software helps realise these benefits.

When choosing an IT solution, particular attention should be paid to end-to-end system integration. Ideally, the entire inbound process – from transport, customs and loading dock management to complete visibility over all processes – should be managed in one system. This reduces and eliminates interfaces, data redundancies and the likelihood of errors while ensuring transparency, efficiency, speed and stability. This in turn increases a company's competitive advantage: a major factor in today's fast-paced, global markets.

About the author

Phil Lavin is Sales Manager, AEB (International) Ltd.

References

1. 'Winning Strategies for Transportation Procurement & Payment', Aberdeen Group, February 2007

2. 'Globalization – Linking Supply Chain Transformation to the Profit and Loss Statement', Aberdeen Group, September 2011

Ideally, the entire inbound process – from transport, customs and loading dock management to complete visibility over all processes – should be managed in one system.