



Logistics Association of Australia Ltd

MONITORING COSTS ACROSS THE SUPPLY CHAIN: USING e-COMMERCE TO ENABLE MORE EFFECTIVE VENDOR RELATIONSHIPS

The following is the third in the series of excellent articles from Emma Stringer, winner of the Logistics Development Award 1999 sponsored by CHEP Australia and supported by Morgan & Banks.

One speaker at the Council of Logistics Management conference last year said that a firm's operating costs accounted for 32% of a firm's total business costs. Imagine these operating costs when they snowball across the entire supply chain. It's easy to offset costs onto another player in the supply chain, but wouldn't it make more sense to try and reduce redundancies within the operations of the supply chain, rather than to offload costs onto one of your supply chain partners? Offloading operating costs onto another member of your supply chain may appear to show direct cost reductions, but this will probably be offset against the increasing costs (and therefore increasing prices) charged by so-called supply chain partner - the victim of your cost-reduction short-sightedness.

The Supply Chain: A Living Organism of Cells

Business processes span outside the company walls. They need to be analysed across the supply chain through strong partnerships. One good analogy of the inter-relationships in the supply chain was used by a speaker at the Council of Logistics Management conference. He used the living body to describe the intricate relationships within the supply chain. The logistics community is a whole living organism of cells – if something doesn't work, it stops everything at the same time. If one element fails, everyone else is affected. With this analogy, a prerequisite is necessary – common communication channels.

This common communication channel can be an 'e-comm gateway' – an interface between internal systems and the trading community. In my last article, I showed how an ERP can help streamline the internal systems and for setting up this e-comm gateway.

This article will examine an example of an 'e-comm gateway' which I saw being implemented at The Home Depot. The e-comm gateway was being implemented to achieve cost reductions in their transportation system. In

addition to this example, I will describe the transit facilities which The Home Depot designed to support their e-comm gateway. The Home Depot describe these facilities as a world first, which exploits the clever coordination of "less-than-truckload" freights.

One example of an e-comm gateway: The Home Depot & 'I2'

One firm I visited in the US was The Home Depot, a highly successful firm, which has grown significantly over the last twenty years (they gave me their book "Built from Scratch" which is a very interesting read on the history of a very successful firm). The Home Depot is a chain of nearly 1000 hardware stores, mainly in the US.

I visited The Home Depot's support centre, located at their Atlanta headquarters. The name 'support centre' shows their logistical philosophy: Home Depot is driven by the customer. They believe the store (not the support centre) therefore knows what is best for the customer, because they are the closest to them. Hence, the support centre acts as the support for the stores. The centre tries to make sure everything behind what happens in servicing the store is transparent. The stores do not care about the logistical issues, as long as they are getting what they want, when, in good quality. The Home Depot call this the inverted pyramid of hierarchy, whereby the store is at the top, and the support centre is lower down.

In the support centre, the Logistics department at The Home Depot is expanding at twice the rate of the rest of Home Depot. In 1997, the Logistics Department consisted of 7 people. By 1999, it consisted of 100 people and it is expected to consist of 200 people by 2001. Their department includes domestic logistics (responsible for distribution, transport, and transit facilities and the engineering support for these); the import group – merchants, (responsible for identifying and getting in products and inventory control); the quality assurance staff; and the international logistics group (in charge of getting the products into the import DC's (IDC's) from overseas).

The Home Depot do not produce any of their materials, many of their products come from Asia, and also from India and Europe. There is a 6 week window from when a product leaves a manufacturer overseas to when it gets into an IDC. The international group's objective is to ship full container loads.

Quality is very important to The Home Depot. They claim that with their transport carriers The Home Depot must have guaranteed pickup, drop off on time, on-time status updates. Carriers can currently track the trucks and give updates to the system via EDI and the internet. At the moment, this is not as exception-based as The Home Depot would like. Currently, carriers are auctioning for each route on the TMS. The carrier is then contacted via EDI, fax or the internet and asked to do the route.

The Home Depot plans to make their carriers more accountable for their route and as cost-efficient as possible. The Home Depot believe this can be achieved through 'ownership' of a lane by carrier. In order to determine who owns the lane, they have chosen to use a computer system which can analyse trucking bids and propose a 'winner' for each route.

One special project that the logistics department are undertaking at the moment is receiving bidding by different carriers for truck loads. Home Depot is currently putting these up for tender, using a computer system called "I2". All carriers (there are 103 of them) who are wanting to bid are trained for half a day each on how to use the system. After this, they were then able to see the routes or lanes (from an origin to a destination or group of stores) on offer by Home Depot and the demands which affect each. Each carrier then submitted their bid on the system detailing which lanes or combinations of lanes (e.g. a triangle) they can serve at which cost.

The beauty of the i2 system was that it allows the Home Depot to compare 'apples with apples' in the bids. Each bid was submitted in the same format, so they can be easily compared. After the bids were submitted, the Home Depot was able to run the program and see the best combination of lanes and the best bids on offer. Constraints can be added to the program. Soft information, such as the quality of the carrier also determines who the Home Depot selects.

This new project highlights Home Depot's current move away from the vendor paying for the freight to the Home Depot paying collect for the freight – freight becomes the Home Depot's responsibility. This helps the Home Depot ensure high quality freight is attained (it is still 3rd party) and their customer service prerogative is sustained. The Home Depot believes that transit times are crucial – one day late is a huge problem.

Round one of the bids for the transport carriers has been completed, and they were about to email the successful and unsuccessful firms. The unsuccessful firms will be told why they were unsuccessful, so they can refine their bids if they like. Once this is complete, then one carrier will own a lane.

The firm has realised that three things are important for this to work. Firstly, when this is done, you need to execute it – The Home Depot have a Transport Management System (TMS) which will allow this. Secondly, the loads need to be pushed out to the carriers (TMS will also allow this via EDI). Thirdly, the Home Depot needs to get the data and measure and manage the transport.

From this, it can be seen that The Home Depot has initiated an e-comm gateway with their vendors. This example was for a project, to organise their transportation costs and analyse them as effectively as possible. This gateway will expand when routes are assigned to accountable carriers who will be required to supply real-time data on their transport to The Home Depot.

How The Home Depot has streamlined their transit facilities

The Home Depot aims to have a lot of vendor direct deliveries, and they already do. These vendor direct deliveries come in the form of 'Less-than-truckload' (LTL) deliveries. LTL's are common – the Home Depot is the second largest LTL shipper in the world. Cross docks, also called transit facilities, are used by the Home Depot for vendor direct deliveries. This has been a project carried out for the last 3 years, and has been deemed successful. They claim their Transit Facilities (TF's) are a world first.

These facilities enable vendors to carry one mix of stock on one stage of a route, come in to a TF & immediately 'swap' or offload onto another truck. Each truck carries a mix of goods, yet full truck loads, because they are swapping their goods at different stages of the route. The Home Depot claims their TF's do not hold any stock, they merely enable the transfer of stock.

TF's are a way of limiting LTL's and their associated costs. TF's aim to ensure trucks are carrying full loads instead of LTL's. TF's also have the advantage that they are a lot smaller than DC's, as they do not carry inventory and therefore have no storage retrieval costs. Also the overall distance travelled is shorter.

The TF is the only DC with a Profit and Loss statement. They are accountable for their expenses and profits, which determines if other TF's will be made. Have made a profit, so more will be made. The TF's have to justify their existence. Revenue is generated by the TF's through vendor negotiations in transportation rates. Currently, most of the Home Depot pre-pays transport from the vendor (but they want to change it to collect – when the Home Depot receives the goods). If the Home Depot agrees with the vendor that e.g.. transportation will cost 2% of purchases, the TF has to make sure they do it within these costs, or they will run at a loss. If the Home Depot attempts to reduce these costs to less than 2%, they will generate revenue.

The TF's also have some strategic significance. They are taking transportation savings away from the Home Depot's competitors. Currently, if there is an LTL, the vendor often fills the truckload up with products that are going to competitors of the Home Depot. Now that the TF's are making the truck loads full, transportation carriers have to make two trips to the same area, forcing the transportation costs up for the carriers, which are carried on to the competitors.

\$1 billion / yr in products are going through the TF's. The Home Depot say that these facilities have been highly successful in reducing costs and they plan to have approximately thirty of these in the next two years.

The Home Depot have achieved the cost savings within the firm in their transit facilities, but have also ventured further into their transportation chain, through their initiative with the i2 bid. It is only by considering their supply chain as a living organism that the firm will realise major efficiencies in the supply chain.

If you would like any more information about any of the issues I have raised in this article, I would be happy to help. You can email me at:
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