



PRESS RELEASE

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Five steps to an optimised logistics network

Optimising the logistics network to deliver customer service edge at the lowest practical cost is a vital process - but it's also far from straightforward. Craig Ryder and Gavin Parnell, Directors at Go Supply Chain Consulting, recommend a five-step approach.

When is the right time to look at optimising the network? The glib answer is 'constantly, because change never stops'. But there are times when optimisation is more than usually important. This may be during or anticipating periods of rapid growth, after significant mergers or acquisitions. It might be due to significant channel shifts – into online retailing for example, or a shift from wholesale to retail. Ultimately, the customer will tell you it's time to renew the logistics offer, but by then it may be too late.

Optimisation involves examining a multitude of factors and the trade-offs between them: the number of facilities, their locations, their purpose and how they are managed, what this means for delivery mileages and response times. The nature of the product is significant and there will also be constraints - the best locations for outbound delivery may not be well placed to receive inbound freight. All these factors and numerous others create trade-offs in terms of cost, time and inventory.

But above these essentially technical factors, optimisation must have regard to the nature of the business and the long-term business strategies being followed. What, for example, are the expectations of future growth and expansion, is the business proposing to meet e-commerce challenges, is price or service seen as the more important differentiator, is capital expenditure or operating expenditure the more significant constraint? What counts as 'excellence' varies between industries – for some, it is worth spending significant money chasing minuscule improvements in On Time In Full delivery: for others, not so. There may even be a strategy to outsource logistics – although we would suggest that the company needs a plan of what an optimal logistics network would look like before trying to outsource its operation.

However efficient the network, if it isn't serving the business strategy it isn't optimised. So the first step for successful optimisation is:

1. Define the Goal

The nature of the trade-offs involved mean that you can't optimise each network element and expect the overall network therefore to be optimised. We have to ask: what are we optimising towards, or for? What are the high level goals? Is it primarily to meet or anticipate changing customer needs, is it to meet growth requirements, is it to minimise operating cost, is it to reduce capital requirements? Different stakeholders will have their own priorities and wish lists, so it is vital to get agreement on the strategic goals from top management early on.

2. Gather the data and cleanse it

There is a lot of data associated with a logistics network. It is, however, rarely all in the same place and equally rarely is it all of high quality. You need to be able to study all the costs, volumes and operations over a period of at least 12-18 months to fully capture both planned and unexpected peaks and troughs.

There will be surprises. The way costs are allocated may no longer be appropriate – for example a nominal storage cost for traffic that is now cross-docked. There may have been unexpected capacity problems for which a clever work-around has been found: there is a good chance that any extra costs have been buried in overheads and that no-one has looked into the root cause of the problem. The list goes on.

Additionally, data is rarely as good as it seems. Does '50 cases per pallet' really mean that for every pallet, or is it an average? Are all deliveries for a multiple retailer really going to the invoice department at their London HQ? Postcodes, a fundamental for delivery routing, are notoriously inaccurate. Multiple systems may not talk to each other, or if they do they may have different 'names' for the same objects or locations. Finding and cleansing all this relevant data is often the longest and most demanding part of the optimisation process.

3. Document the current situation

This may be embarrassing, though is surprisingly common, but you may not have a consolidated list of all your locations and facilities, let alone the locations of all your suppliers and customers. Onto this you need to map complete information about products, volumes, demand patterns and the times taken for any ancillary processes such as deconsolidation and repacking. Other processes, such as the handling of returns, need to be included as do all the requirements around disposable and reusable transit and packaging materials – your largest single product category may be carrier bags or cardboard boxes.

There will also be capacity and logistics constraints to be noted. There may, for example, be reasons why the full nominal capacity of a warehouse is not available, or why on some delivery routes the truck cannot be fully loaded.

At all points, not only does the current situation need to be captured but also any known and planned changes. It is important to ask all the right questions of all the players: as far as possible in the customer and supplier base as well as within your own operation.

4. Logistics network scenario modelling to test alternatives

This is the clever bit. All the plausible scenarios are considered, numbers crunched and the outcomes tested. Some can be eliminated rapidly – they may require improbable amounts of capital expenditure, they are suited to markets that the company doesn't intend to enter, or they in some way conflict with the agreed business strategies and objectives. For those remaining, a range of tools and techniques can be applied – such as centre of gravity analysis and routing/scheduling packages – and information captured – such as labour availability and property costs.

A hefty dose of reality is also applied to come down on a workable set of scenarios that best offer the desired trade-offs between cost and service. These should be plausibly achievable within a sensible timescale. The effects of future changes in volumes and inventory levels can also be modelled, and the impact of processes and activities that the company hasn't performed hitherto, but may need to in the future, can be estimated.

Involving end users in reviewing these scenarios is important. This creates 'buy-in' for any subsequent implementation of a chosen scenario, and may also reveal issues that aren't captured in the formal analysis. Take, for example, a reluctance to open a second DC that would improve customer service but would also increase management complexity.

5. Evaluate alternative logistics network designs and costs

You can now evaluate the remaining scenarios and choose which, if any, to implement. Often, it will make sense to implement a pilot to gain a full assessment of the scheme's merits, but this isn't always possible – if the key element is a move from one DC to two, you can't do one and a bit as a pilot.

In the end, this decision can only be taken by you, the company. Although they can make recommendations, the decision can't be outsourced to consultants. What is usually offered is an implementation plan, also showing what benefits should accrue, where and when. Cost savings of 10-20% are quite typically available, but if the network has already been improved in the recent past that level may not be obtainable. Nonetheless, even much smaller cost savings if combined with significantly enhanced customer service, and the knowledge that the new network is to some extent 'future-proofed' against change and growth, will be very attractive.

This five-step approach to logistics network optimisation will create a road map, which is aligned with current and future strategic needs and that will allow for changes in direction if events turn out differently. Ultimately, it will deliver a vital competitive edge in customer service. Are you ready to take that first step?

ENDS

Editor Notes

Go Supply Chain Consulting Limited is a logistics consultancy firm offering supply chain and logistics consulting services to clients across industry sectors including retail, FMCG, fashion, automotive and technology. The company is independent from logistics service providers and vendors of equipment and systems.

Founded by an experienced and capable team of logistics consultants, Go Supply Chain combines practicality with a highly analytical approach, reflecting its blend of operational and consulting experience.

Clients range from global corporations to fast-growing, entrepreneurial companies. Go Supply Chain works both in the UK and internationally – the team has completed projects in 16 countries.