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Supply Chain Solutions

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The Impact of Globalisation on the Australian Supply Chain

The flow of goods across national boundaries has never been greater. Reducing tariffs and the homogenisation of foreign investment and trade policy provides companies with new opportunities. Inexorably, these changes are intertwined with changes to supply chains, and, for each nation, the trend of this change is dependent upon the country's economic environment. Carter McNabb looks at the effects on Australian enterprises.*

In Australia, we find ourselves with a growing percentage of resource and retail businesses (the endpoints of the supply chain) as manufacturing continues to move offshore to lower cost economies. This changing environment brings with it new supply chain challenges, and if these challenges are not managed successfully, businesses may find that increased supply chain costs put pressure on the savings delivered by the lower cost overseas suppliers. The recent media attention given to the supply chain performance and cost structures of many of Australia's leading companies highlights this point.

Some of the key supply chain challenges for Australian businesses created by globalisation include:

- more options and complexity
- greater constraints (longer lead times, minimum order quantities, etc)
- greater volatility, uncertainty and risk increased dependency on supply chain partners
- reduced leverage, flexibility, responsiveness and control
- less visibility across the supply chain
- new cost structures
- different set of competencies required to manage successfully

Australian operations typically represent 1%-3% of total revenue for a global business or supplier. The Australian division of a global consumer products company said that their revenue contribution was a 'rounding error' in the consolidated corporate books. As the following examples illustrate, domestic businesses in a global supply chain are left with less leverage, flexibility and control than their larger international counterparts.

The following real world example illustrates the challenges of increased dependency, reduced leverage and new cost structures:

The Australian division of a foreign-owned automotive manufacturer

This company is required to place daily orders on the factory in Japan to conform to manufacturing schedules. Orders are also shipped daily

as the factory has a 'zero inventory' policy. Being the distributor, this works well if the factory is 100 metres away, but in this case, deliveries from Japan take up to three months. Ordering daily under these conditions causes ordering/ purchasing costs to blow out, and steep increases in stock receipting costs and transport costs. Although there is less money tied up in inventory, the other cost penalties far outweigh the benefits of less stock, and there is the added difficulty of planning accurately for a longer lead time.

To make a simple analogy – if you live in Melbourne, it's like driving to Geelong to buy a single cotton bud every time you need one. There's not a lot of money tied up in cotton buds, but think about the fuel costs, opportunity costs, potential errors, delays, labour costs etc that you incur every day – it would be far more cost effective to buy a box of 500.

Another real world example of the challenges posed by globalisation follows below:

The Australian division of a foreign-owned consumer goods manufacturer

This operation sources from overseas production facilities that service global demands, and some products have a minimum order quantity constraint. Given the size of Australia's domestic market, these minimums equate to 12 months of supply – that's a lot of capital tied up in inventory that doesn't add any value to the business.

Domestic operations will find it increasingly difficult to remain competitive, responsive and efficient if these constraints and cost structures aren't constantly optimised and managed effectively. In some cases, businesses may find it difficult to survive at all if these issues are not successfully addressed.

What needs to be done

To effectively tackle these pressures and constraints, and to profit from the opportunities created by globalisation rather than be hindered by its risks, Australian businesses must:

- Dramatically improve long range demand and supply planning capabilities in order to better match supply to demand and consistently achieve the '4 Rights' – right item, right location, right quantity, right time,
- Dynamically optimise supply chain costs, constraints, risks and customer service levels,
- Exchange appropriate and meaningful information with suppliers and customers, and
- Develop the appropriate business culture and acquire the skills, knowledge and tools required to manage the risks effectively.

We need to get smart. Fast companies outperform big companies and smart companies outperform all others.

In terms of getting smart, the above points can be viewed as critical success factors for Australian businesses in the global supply chain. These points must be successfully addressed in order for our supply chain capabilities to evolve in accordance with the opportunities, risks and challenges presented by globalisation. Businesses that fail to do so will be disadvantaged, whilst successful adopters will reap the rewards. In any event, doing nothing will not be a viable option for very long.

a) Dramatically improve long range demand and supply planning capabilities

It's ironic that 'Just In Time' (JIT) and 'Lean' principles have gained so much popularity against the backdrop of globalisation. If anything, globalisation has elongated the supply chain and created more constraints. JIT and Lean are excellent 'less is more' ideologies, but they need to be applied in context. A manufacturer might strive for a 'produce to demand' model, but this model has obvious limitations for an importer/distributor with three month supply lead times.

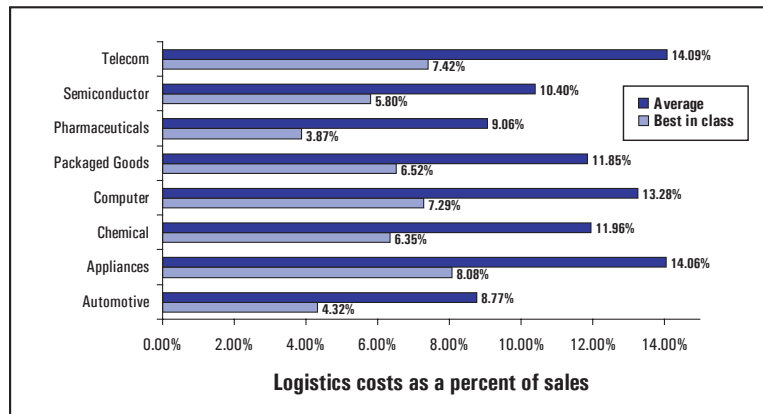
In long lead time situations, it is critical to maximise the accuracy of forward demand plans and supply plans to ensure that the right item is in the right location at the right time in the right quantity based on your customers' expectations. In the supply chain industry, this is known as 'synchronisation', and each out-of-synch step adds unnecessary costs and erodes margins.

What if the order is too early? Then your inventory turns more slowly, and you have more inventory than cash.

What if the order is too late? Then you've purchased the stock, shipped it, processed it – and then lost the sale. Maybe even the customer.

There is nothing more common than the story of the unsynchronised promotion:

The sales and marketing team discount a product by 10%. Demand increases, but because the plan was not synchronised with supply, there is not enough stock in the pipeline to service the



Source: Logistics Management

increased demand. The supply team tries to respond and expedites stock (at a higher cost) to meet the demand. Because the stock wasn't available at the right time and in the right quantity, sales are lost and the demand subsides. A few days later, the stock is delivered and warehouses bulge with unsalable inventory. Because the process was unsynchronised, the original marketing activity designed to increase profits results in waste and is a net negative for the business.

Given that the supply chain is elongating with globalisation, it is imperative that Australian businesses improve their ability to accurately forecast demand and plan supply into the future. We cannot afford to do otherwise.

b) Dynamically optimise supply chain costs, constraints, risks and customer service levels

Firstly, businesses need to quantify their costs, risks and opportunities. Many organisations have a general understanding of their supply chain cost structures and where they may be disadvantaged but are unable to specifically quantify the impact – and in today's supply chain environment, what you don't know will hurt you. Identifying the cause and effect relationships and financially quantifying the impact is absolutely necessary for taking the right action. Having fact based information is essential to communicating and negotiating with supply chain partners:

"These constraints are costing this business \$11.4m per annum in inventory related costs."

And picking the right initiative to focus on:

"In respect of all the opportunities identified, our inventory consolidation project will deliver 80% of the total opportunity in half the time at an eighth of the cost."

It is dangerous and potentially costly to commit resources to a project where the underlying assumptions aren't fully tested and where the expected benefits and outcomes aren't clearly defined. This is the difference between luck and skill.

Secondly, costs, constraints, risks and service levels must be dynamically optimised to ensure that the business is consistently achieving its service level targets at the lowest possible cost. Why is this important? Logistics costs as a percentage of sales for the automotive industry are, on average, approximately 9% of sales whilst the costs for best-in-class companies are approximately 4% (see figure above). In other words, the average performers have logistics costs as a percentage of sales that are two times that of their best-in-class competitors. Given the constant pressures on margins, this could be the difference between a profitable business and one that collapses. The on-going reduction in Australian import tariffs further underscores the importance of cost competitiveness. Optimisation is a valuable science and methodology that can be used to extract the maximum value from capital employed. Businesses must successfully adopt these techniques in order to remain competitive.

Encouragingly, experience has shown that inventories can be reduced by 20%-40% within 6-12 months whilst simultaneously achieving a sustain-

able increase in service levels by successfully using optimisation and advanced planning techniques. Given that inventories often represent 30%-50% of a business' current assets, minimised and properly balanced inventories can significantly and quickly improve a company's:

- Cash position,
- Return on Assets (ROA),
- Return on Equity (ROE), and
- Return on Investment (ROI).

Improved planning can also reduce operating costs such as:

- transport costs,
- demurrage costs,
- inventory holding costs,
- manufacturing & receipting costs,
- cost of goods sold (COGS), and
- overtime costs.

Again, these benefits can be achieved whilst simultaneously improving service levels – it's a matter of getting the mix or balance right. All things being equal, businesses that get this right on a consistent basis can deliver greater value to customers at a far lower cost than businesses that do not.

c) Exchange the appropriate, meaningful information with suppliers and customers

As mentioned previously, globalisation has elongated the supply chain and created additional dependencies on supply chain partners – both customers and suppliers, and in some cases, even competitors. With increased dependency, exchanging the right information becomes paramount. The types of information that might be shared are many and varied, but the following two are fundamental in most supply chain scenarios:

- accurate planning information, and
- accurate execution information.

Given that the supply chain is an interdependent system, it is important to share accurate forward planning information to ensure that your suppliers are aware of and able to meet your requirements. This is particularly important in situations where the supplier's capacity is limited and supply allocation is a risk. Businesses also need to be aware of their customers' future activities (eg planned promotions, large upgrade projects, scheduled maintenance, etc) to ensure all requirements are accounted for in the planning process.

With the elongation of the supply chain and greater reliance of supply chain partners, execution visibility has become increasingly important. Companies once owned the majority of their supply chain operations, but now it's not uncommon for businesses to have outsourced these functions with separate companies handling purchasing, warehousing, transportation & distribution, contract delivery and customer

service. These arrangements may reduce the total cost of ownership, but they can also increase the risk if not established and managed properly. Furthermore, additional costs may be incurred in managing these risks that outweigh the outsourcing savings. As part of an outsourcing risk management strategy, real-time visibility into each node in the supply chain and advance notification of delays and other difficulties is essential. For example, inventory visibility across the supply chain, both within customer and supplier sites, is helpful when confronted with an out-of-stock situation. Redistribution, re-routing or inventory sharing may be preferable to a costly expedited order.

The industry term that has emerged to encapsulate these types of activities is 'collaboration'. Collaboration can extend beyond the flow of information across organisations to include the sharing of resources. For example, some competitive businesses have collaborated to standardise item classification and catalogues, standardise contracting procedures and/or share delivery routes. Of course, these activities are limited to what are seen as non-competitive areas and are often undertaken to realise shared savings and efficiencies that benefit the overall industry.

In any event, the quality of the information that underpins collaboration activities is vital, and this is why the word 'accurate' features in the above descriptions. As much as effective collaboration can be of benefit, an integrated plan based on inaccurate information can cause great damage and disruption throughout the supply chain.

As the opportunities within each individual node of the supply chain are realised, collaboration becomes increasingly important in overall supply chain cost reduction and performance improvement initiatives.

d) Develop the appropriate business culture

It is imperative that businesses have a clear understanding of the skills, knowledge, capabilities and technology tools required to manage the new supply chain environment successfully – and successfully implement them. It is not uncommon to see an importer/distributor that was once a manufacturer still using its old planning approaches and supplier management strategies. These approaches are ineffective in the new environment, and as such, the business compensates with avoidable inefficiencies and costs. For example, if you can't accurately plan the 'the right' inventory, the tendency is to order 'too much' to ensure sales aren't lost, but this of course comes at a cost. On the other hand, if you can't afford 'too much' because the inventory budget is constrained, then service levels drop and sales are missed. It is important that the appropriate disciplines are understood

and adopted in order to extract the maximum benefit possible from capital employed.

And lastly, there is culture. Quite simply, effective culture change underpins the success of all the initiatives outlined in this article. The following scenarios illustrate this point.

- If you're now a small fish in a big pond, should you use the same supplier management tactics that worked when you were a big fish in a small pond?
- Will a project be considered important by the business if executive management aren't seen to actively back it?
- If the business aims to increase profitability, is that likely to be achieved whilst the sales team is measured on revenue growth alone?

On the last point, it is much easier to convince a sales team that lowering inventories (without reducing service levels) is a positive if their incentives are based on Return On Net Assets (RONA), for example. Why? Because lower inventories will improve RONA (and their compensation). Try explaining that to a salesperson that is only measured on revenue growth. Why should they care about inventory reductions? In this instance, reducing inventories only sounds like an increased risk to their revenue growth targets. This mismatch between performance measures and corporate targets is not uncommon.

Sustainable improvements in supply chain results often come from a combination of process, technology and culture changes – with culture being the lynchpin. Better outcomes stem from improved processes that are supported by quality information and the right cultural framework, but it is important to note that this is an interdependent system. You can think of it like a three-legged stool – if the cultural leg is missing, then the whole thing falls down. What happens when a new process is put in place and the culture is primed and accepting – but the technology fails? The process isn't ably supported, the expected results aren't delivered and the culture moves from accepting to cynical. This can be particularly damaging as it often rules out the possibility of achieving the potential benefits in the future. Although the original opportunity may still exist, 'We've tried that here, and it didn't work' is a difficult mentality to change and makes achieving the opportunity in the future that much more difficult.

Globalisation creates both opportunities and challenges for Australian businesses. Our success will depend on how successfully we adapt to this changing environment. In short, we must get smart if we want to stay in the game – in the most literal sense, we simply cannot afford to do otherwise.

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