Mitigating risk in the global supply chain

As sourcing continues to move to distant low-cost economies, supply chain complexity and, hence, risk is on the rise. Gianfranco Sgro, CEVA's president for Southern Europe, Middle East and Africa, looks at ways to minimise exposure to risk within the global chain.

In the globalised economy ever more efficient transportation and logistics has driven the outsourcing of manufacturing to, and sourcing of parts and goods from, distant regions to reap the benefits of lower sourcing and production costs. This of course has been managed by developing global supply chain management. But with its inherent complexity a global supply chain is at risk from many potential issues that could disrupt the chain. Risk must therefore be mitigated as far as possible at both a strategic and tactical level in order to reap the continued rewards of global sourcing.

Many companies fail to do this when initially expanding their supply chains. They look at the rewards of sourcing from new regions and increase the complexity of their chains without paying sufficient attention to the considerable risks involved. In today's more volatile business climate these companies lack the resilience in their global supply chains and are more vulnerable to failure, now more than ever.

A report published in the mid-2008 by analysts, the Aberdeen Group, found that over the preceding year, some 58% of companies suffered financial losses as a result of supply chain disruptions. The 'best in class' firms were those that had adopted a more holistic view of supply chain risk and improved their supply chain processes and infrastructure in order to be better positioned to foresee, spot and respond to potential disruptions. As a result, says the report, they are much further ahead in building a resilient supply chain.

In a global supply chain traditional risks, such as errors in forecasts leading to inventory shortfalls or overstocks, are joined by risks inherent in the complexity arising from operating in different geographical locations and cultures. These risks include variability of transit times in ports and clearing customs; consistency in quality and reliability; dealing with regions where legislation for safe practices can create more chance of accident and damage; locations under threat from extreme weather; geological threats and suppliers failing to deliver goods. A further area of risk that can befall a global supply chain is to have inadequate knowledge of the people, the culture and language in foreign countries, where stock can literary get lost in translation. Companies may also be exposed to factors that are not fully manageable yet but are key to decision making, such as fluctuations in oil price and labour costs as well as changes in exchange and tax rates.

Minimising exposure to risk

The first step to minimising exposure to such risks is to spend time on the definition and modelling of the key factors affecting a global supply chain and then carry out detailed planning and a sensitivity analysis, using planning tools and simulation systems to produce 'what if?' scenarios.

A company should re-examine its global approach whenever appropriate. Even if there have not been any major changes, it should be re-examined as a matter of course every three years. More often than not, within this timeframe there tends to be something that will drive a major change in a company's supply chain.

Visibility of the entire global supply chain is a fundamental necessity for reducing risk, without a completely integrated vision and approach a company may take the wrong decision, for example squeezing cost from one part of a chain then, in trying to mitigate the situation, over-compensate with another part of the chain.

When change is required quickly, in response to the unforeseen, a company needs the agility to be able to adapt or even redesign its supply chain quickly. It should, therefore, have a contingency plan that can be actioned smoothly and without any loss of flow. However the contingency plan is only as strong as the logistics partner and the supplier base and if these have been selected purely on a price basis, rather than on their ability to innovate, then they may lack the agility and robustness to support the necessary change.

Outsource logistics service providers will be vital partners in reducing risk and should be selected on their vision of the supply chain and their proactive approach to innovation - not only in adapting IT solutions but also in terms of proposing and creating new flows, new trade lanes, new hubs, etc.

A rigorous selection criteria needs to be put in place to assess a regional or global supply chain partner on such factors as its quality, reliability, flexibility and geographic presence.

Initiating a supplier reward programme using a 'carrot and stick' approach to reward suppliers that make great efforts to be true global or regional partners, while offloading those that under perform, will ensure suppliers maintain the standards they demonstrated for their selection.

However, while these measures will give some confidence, it's important not to be totally reliant on the supplier base to mitigate risk but to maintain a strong control over global flows. This requires an IT system that can manage all of flows and suppliers on a global basis.

Are companies changing their strategy?
The volatility caused by the current economic downturn, rising fuel prices and, subsequently, rising transport costs is leading many companies to alter their sourcing strategies by looking closer to home in order to mitigate risk. And so there is now a growing trend towards 'near-shoring' as opposed to 'off-shoring'.

We may well have passed through the boom in off-shoring where, for example, European companies turned to far away locations of China and South East Asia for supply. This is because, as mentioned earlier, decisions to off-shore were often taken without the integrated analysis and full vision of the

supply chain. Key factors were commonly underestimated - such as exposure to costs, the drivers of costs that were not fully manageable and exposure to cultures that are very different. Just look at how many companies fail in China during negotiations or in setting up a reliable supplier base. The costs they incur when getting this wrong can be huge. However, off-shoring can deliver rewards for those prepared to manage it correctly and those that deploy a strategy to minimise the risks.

Take FIAT, for example. Few industries are as global as the automotive industry – or as susceptible to risk. Two years ago the FIAT Group - which includes Fiat automobiles, Iveco trucks and Case New Holland earth movement machines and construction equipment - made a strategic decision for the whole group to off-shore the supply of approximately €1 billion of parts from countries with mature economies to low-cost countries. CEVA created the entire logistics infrastructure to support this, which led to the creation of several consolidation centres, mainly in China. As a value added activity to support this, CEVA created a competence centre to train 150 suppliers in China to manage the new supply chain – not only to make the part at the right price but also to input all of the correct data into the corporate IT system, which CEVA made available, and to guarantee that all the alerts were respected in order to keep production of that part to a specific price.

This system was then used to rationalise and implement the consolidation centres and maintain, 24/7 control of all the related flows from the suppliers to the 49 countries around the world where FIAT Group plants are located. It was the key to successfully ensuring that the supplier base was reliable.

Is near-shoring a solution for mitigating risk? Well, yes and no. This is because most of the key challenges are the same as off-shoring as while moving closer geographically reduces exposure to oil prices, an even greater cultural and economic distance can be created. Looking again at a European company, while geographically North Africa is certainly closer than China there is a greater divergence in the structure of its economy and there will be other challenges to be faced such as wider cultural differences.

So while it is true to say that there is a move to near-shoring, some of the lessons learned from off-shoring still need to be applied. Such is the case with CEVA, which is taking what it has done with FIAT in Asia and implementing a similar operation for a major technology company, which has full European distribution flows. Despite the fact that this is a near shoring operation, the concept is very similar - with the same issues - just on a different scale and with different products. By carrying out very detailed planning, a sensitivity analysis and having an extended trial period we can ensure the supply chain starts from a solid position, with less exposure to risk right from the start-up date.

It will be supply chains such as these that will be the most resilient to future volatile conditions and that have the ability to adapt to and bounce back from unforeseen or catastrophic events.

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