An FD's guide to Supply Chain Management

A White Paper by Pegasus Software

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SCM: a definition

Supply chain management is the management of material and information flow in a supply chain, designed to provide the highest degree of customer satisfaction at the lowest possible cost. It requires the commitment of supply chain partners to work closely to co-ordinate order generation, order taking and order fulfilment.

Changing landscape

Until relatively recently, supply chains gained little attention beyond those directly involved in managing and optimising them. According to global supply chain research conducted by AMR[1] in November 2009, primary business priorities[2] for the global supply chain industry were increasing productivity (13%), increasing profitability (12%), reducing operational costs (11%), and redesigning supply chain networks to improve cost or service (10%). Manufacturers' focus was very much on keeping supply chain costs low in order to survive the recession.

The picture emerging now is very different. The risks that supply chains expose businesses to have been played out in painful detail, with a number of natural disasters and world events having had a direct and costly impact.

In 2010, the eruption of the Icelandic Eyjafjallajl volcano affected a number of major car manufacturers who were forced to reduce production because of shortages of critical parts. And the disruption caused following the catastrophic set of events experienced in Japan in early 2011 caused major supply issues for the hi-tech electronics sector, steel and automotive industries. Inevitably, industries which depend on these sectors (producers of medical devices, communications equipment suppliers, shipbuilders, consumer electronics and the aviation industry) saw a knock-on impact.

These events have conspired to put SCM firmly on the FD's agenda. In fact, according to a survey[3] of over 600 CFOs, supply chain disruption is now the number one threat to revenue.

However supply chain disruption is not restricted to large-scale world events. Production facility downtime, customer changes or even just poorly co-ordinated staff holidays can all impact the smooth operation of a supply chain. In any event, once a supply chain is disrupted it quickly becomes both costly and risky.

A delicate balancing act

The problem is that supply chains are both immensely complex and precariously fragile. Efforts to strip out costs from the business have resulted in the rationalisation of suppliers, and often manufacturers rely on just a couple of key suppliers, which increases risk if one, or indeed both, cannot supply. Conversely, those manufacturers who rely on a greater number of suppliers face risk through managing a bigger, more convoluted supply chain. Take the iPhone. A recent study by Asian Development Bank found that manufacturing the US-designed iPhone involves nine different suppliers which operate in China, South Korea, Japan, Taiwan, Germany and the US. And this is not unusual: companies from bakers to kitchen appliance manufacturers face similar challenges in the management of their supply chains.

The challenge for an FD is to analyse the degree of vulnerability and risk faced through supply chain activity, and ensure that sufficient measures and resilience are built in to mitigate this risk as far as is possible.

Growing pains

As markets remain volatile, balancing supply chain resilience with investment in growth only seeks to exacerbate the challenge. The EEF[4] predicted that this year would see manufacturers outperform all other areas of the economy, and while overall growth in the sector has slowed, confidence remains solid, with recent figures highlighting that 70% of supply chain executives anticipate an increase in business volumes over the next 12 months[5].

1 *AMR: Supply Chain Management in Established and Emerging Markets, November 2009*
2 *Respondents were asked to rank their single highest priority (primary)*
3 *FM Global and Harris*
4 *Respondents were asked to rank their single highest priority (primary)*
5 *FM Global and Harris*

Joining the links

Technology has a pivotal role to play in addressing this balance. It can enable a holistic understanding of exactly what is going on in the supply chain, providing highly detailed status updates on production, including configured assembly, engineer-to-order, make-to-order, make-to-stock and repetitive manufacturing, and allows flexibility in production with work orders, subcontracting and production schedules.

However, many SCM systems operate in isolation, facilitating visibility of the supply chain itself, but failing to fully factor in critical interdependent processes such as finance, production, CRM and Business Intelligence.

In order to achieve a cohesive picture of the status of the supply chain and, more importantly, be able to respond and react quickly to issues and changes to plans as they emerge, it is vital that supply chain systems are fully integrated with CRM, financials, production, document management and business intelligence, which provides a live, comprehensive view of operations at any given time. The linking of SCM with finance systems streamlines internal processes and enables both FDs and supply chain staff to take a more comprehensive, informed and strategic view of the business.

For example, through integrating supply chain and finance systems, the true cost of stock can be established. The actual unit price of stock is only part of the picture; for its true cost to be calculated, additional fees that are incurred to source goods from a supplier, such as freight costs, insurance, customs duties and other taxes that are levied on a shipment. These are crucial in calculating the 'landed' cost in order to calculate what it can be sold for. This insight is critical in ensuring profitability; without it, margin calculations are merely guesstimates.

10 questions

In order to ascertain the resilience and effectiveness of the supply chain, it is important for an FD to know the answers to the following questions:

1) How can the business keep inventory low while still servicing demand?
2) What would be the impact of labour issues, including strikes and illness?
3) How do we account for any outsourced components of the production, manufacture or distribution?
4) What happens if a major supplier fails to deliver, or if quality issues arise?
5) What happens if we sell too few products or the customer orders too much?
6) Are our or our suppliers' production facilities and distribution channels suitably resilient against natural disaster, adverse weather or terrorism?
7) Are we dependent on too few or too many suppliers?
8) What is the likelihood of supplier downtime?
9) What happens if our product quality/yield dramatically drops?
10) What happens if there is deviation from expected lead times?

A 360-degree perspective

Events which have occurred in the last few years have highlighted that finance directors need to step outside of the core finance function, and take time to re-appraise the supply chain risks and challenges facing the business.

The role of technology is critical in helping to achieve this understanding. In fact it is impossible to address the complex framework of supply chain issues, facilitate visibility, automate processes, analyse critical business data and plan for "what-if" scenarios without robust integrated software. Through achieving this 360 degree visibility of the supply chain and its impact on all other business processes, FDs can manage growth, achieve profitability, manage variability and reduce risk in their supply chains, regardless of future uncertainties.

Pegasus Software, an Infor™ company Orion House, Orion Way, Kettering NN15 6PE
T 0800 919704 (UK) **F** +44 (0) 1536 495226 **E** info@pegasus.co.uk **www.pegasus.co.uk**