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Rutgers Supply Chain Management Thought Leaders



Designing Your Supply Chain.....For the CFO

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Supply Chain “Finance” Has Evolved from Just Financing

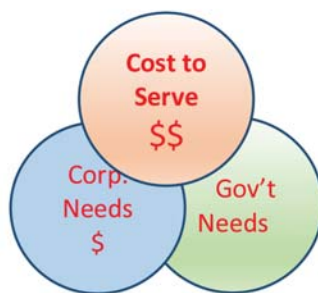
A very profitable evolution for business is underway: Re-design of the supply chain to the Chief Financial Officer’s (CFO) requirements. In the last few decades, the definition of “supply chain” has evolved to include enterprise planning, procurement, and manufacturing in addition to logistics / physical distribution. As the supply chain was widened, new considerations like cash and capital have come front and center for not only the CFO, but for supply chain leaders. Supply chain finance has become a critical weapon in the fight for not only small company survival, where cash is king, but for larger firms as well, where capital is tight and cash can go elsewhere for greater gains.

Design of one’s supply chain to the usual financial criteria does not mean that supply chains fail to serve the customer as well; they do! Over the past twenty years, there have been changes to the landscape involving working capital, regulatory/tax requirements, and more closely integrated supply chain relationships which were quickly leveraged by supply chain practitioners to the benefit of their companies and financial colleagues.

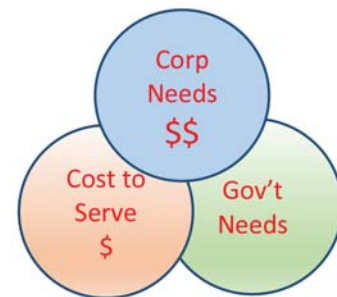
To illustrate, in the traditional supply chain view, ‘Total Cost to Serve’ has been the primary driver behind choices made across the supply chain, whether that choice was where to locate plants, what type of run strategy to employ, or selecting modes of transportation. While company and regulatory requirements were not ignored, they were treated as constraints to be met in the equation, and not as opportunities for the supply chain.

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<Figure 1 - Traditional Supply Chair Considerations>



<Figure 2 - Designing for the CFO>

As supply chains have become more cost effective, whether by squeezing out a percentage of the cost of goods sold through global sourcing, just-in-time manufacturing,

and/or more efficient transportation, etc., the focus upon the supply chain has become not only broader but more holistic. Now, executives are looking not only up and down the supply chain at their own functional groups for improvements, but also at costs that were traditionally assumed to be fixed in the short term across the extended supply chain: working capital, regulatory/tax costs, and extended supply chain partner costs. A tradeoff can be made between assets and cost of goods sold, for example, by selling off a facility and procuring goods from the new operator. Not only does the sale of that operation generate an inflow of cash to the balance sheet, but there are also reductions in work-in-process inventories. On the P/L statement, there are higher costs of goods sold, generating a lower income tax liability as well as lower property taxes.

Working Capital

Increasingly, the CFO charts the course for their supply chain by dictating the limited capital available for all facets of the balance sheet, whether that is new Plant, Property and Equipment (PPE) investment, inventory or payables and receivables; for example, moving PPE to local/state governments on a leaseback arrangement in return for stable employment in that community. In addition, innovative competitors are pressing on both ends of their supply chain for significantly more in the way of working capital improvements, whether that comes from leveraging vendor managed inventory, or selling receivables to lower balance sheet investments.

Tax Efficiency

CFOs have found more benefits than simply leveraging suppliers and banking affiliates to reduce working capital; they have increasingly employed strategies to leverage the flow of goods and services so as to maximize the tax efficiency of their supply chains. As governments began to change tax structures in the 1980/90s to try to attract jobs and industrial growth, leading supply chains were busy assimilating this information and reconfiguring their development and product flow to take advantage. For some, this was manifested by employing commissionaire structures in the European Union, or locating plants inside of free/low tax zones. For others, it was evident as the lion's share of profits across the supply chain were accrued internally inside tax jurisdictions where the products' intellectual property was developed and held (e.g. Puerto Rico, Ireland, etc.). In countries like the US or India, where tax structures varied by state, product transportation / storage may be designed to leverage where assets would be taxed each year, or sales would be made. An example is the inventory tax in California, which has caused many firms to locate their warehouses just across the border in Nevada.

Extended Supply Chain

Finally, CFOs have not been unaware of the advantages to be gained by taking the entire supply chain and its capital requirements into account when designing the supply chain. Some high tech companies, with very specific manufacturing requirements, have found it beneficial to invest in their supplier's manufacturing capabilities, essentially funding the supplier's PPE needs (at a lower cost of capital) in order to ultimately yield a lower cost of goods sold. Buying and selling materials and services from global subsidiaries and suppliers has also netted CFOs the opportunity to plan and to hedge those currency flows (in various currencies) where planning shows a clear advantage from expected trends. Planning and forecasting future commodity price swings has also netted some CFOs an advantage where purchasing trends in either direction can be leveraged (buying sooner or later) to lower future cost of goods sold.

The era of minimizing Cost to Serve is coming to a rapid close, as a company's supply chain leadership and the financial community they support bring their collective wisdom to bear on more than just delivering product. The new supply chain is designed for the CFO, to deliver both product and more profit.



Efficient Logistics Service Levels and Customer Share of Business

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Companies supplying business customers face increasing competition not just from domestic firms, but also international ones. Nevertheless, most customers choose about two to three suppliers for each category. Those suppliers have several ways of competing for the share of the purchases they receive, and one of the most compelling conceptualizations has been the ‘Marketing Mix,’ also known as the Four Ps of Marketing. The first component, through which suppliers are competing for the business, is called ‘product.’ The actual products are often viewed by customers as very similar, and it takes a lot of time and resources to build more competitiveness into them. The second is ‘price,’ which, while easy to change, is often driven by market forces and has to be in line with the other factors of the Marketing Mix. Third is ‘promotion,’ which for business customers is often dependent on the actions of the sales representative and can vary widely within firms. In our research, these first three factors have been shown not to affect customer satisfaction and the percentage of business awarded to the customer significantly. That is not to say they don’t matter at all, but their importance varies widely by industry. Based on our research, the last factor, often named ‘place,’ which is largely driven by logistics service levels, has the most consistent impact on performance and is the strongest determinant of which firm is the primary or secondary supplier in business-to-business buyer-seller relationships. We also found that parity on a component diminishes its importance, while different performance levels raise the importance.

Many popular outlets have reported how customers are less and less satisfied with the service they receive from firms from which they purchase products. While there are many factors that contribute to customer satisfaction, it seems to be an elusive target. Supply chain managers have various tools to influence customer service for each customer. Some companies have adopted concepts like the “Perfect Order,” which is defined as the percentage of orders delivered on-time, in-full, damage-free, and with the correct invoice. While this is the ultimate goal, since the customer usually only cares about orders that are flawless, it is also challenging because the likelihood of delivering a perfect order is usually rather low. In addition, the resources necessary to achieve such high service levels are often not available. As such, Procter and Gamble, the originator of the “Perfect Order,” has developed a more nuanced service strategy named “service as measured by customer” (SAMBC). For example, one customer might expect a 95% on-time rate and another one expects 98%, and as such, suppliers following this approach deliver exactly the service level that customers require. This approach not only helps conserve scarce resources, but also ensures that customer satisfaction is maintained.

When firms are planning for their service strategy, they should consider that customers generally pick two to three suppliers per category. The primary supplier typically receives 70-80% of the purchases, the secondary supplier receives about 10-20%, and the remaining suppliers make up the rest. Research has shown that the biggest opportunities arise when the firm is the secondary supplier because they can grow in two ways: one by capturing share from the primary supplier and two, by growing with the customer. However, in most cases suppliers do not give their customers the reason to switch more business to them because their service levels are below those provided by the primary supplier. If companies use the typical service level strategies of assigning the highest service levels to the largest customers, opportunities are lost. The goal should be to be the primary supplier to as many customers as possible. Typically, the supplier that is the primary supplier to most customers has the highest market share.

It is important for suppliers to understand if they are the primary or the secondary supplier because it changes the strategy they should pursue, as determining how firms can become the primary supplier more often is critical to gaining market share. It is much easier to convince a customer that already has a relationship with a firm to give more business based on superior performance, rather than gaining the business of a customer that is completely

new. So, how can this be achieved? First, companies must understand what their current service levels are as the customers perceive them. There might be disconnects between the service that the firm thinks they provide and what the customer perceives the service is. Next, there must be some understanding of what the service levels of competitors are. This benchmarking is often difficult to do, but can be achieved in our experience with satisfaction surveys. Then, firms should obtain overall size of the purchases, and share of business and profitability data for each customer. Once this information is obtained, a matrix can be created with the following three dimensions: profitability, potential for growth, and relative service levels. For customers with lower share of business, high potential for growth and lower relative service levels, there are tremendous opportunities to grow the business. This matrix can then guide future allocation of resources towards logistics service levels and take advantage of the opportunities with customers to grow the business.

Rutgers Undergraduate Students Are Top Winners at Institute for Supply Management (ISM) Case Competition

Three Rutgers Business School undergraduate supply chain management students won the Institute for Supply Management's annual indirect procurement case competition in Phoenix. The students were required to analyze a lengthy case involving GlaxoSmithKline's spending on contracted legal services and recommend ways the company could better manage its spending on litigation.

The competition, which took place in December 2014, pitted the Rutgers students against teams from Arizona State, Michigan State, the University of San Diego and Western Michigan University. The conference doubled as an opportunity for the students to network with more than 100 representatives from companies in the procurement industry.

Pictured is the winning team of Alexandra Preziosi, Dwight Gonzales, and Sheryll Moser, along with faculty advisor, Paul Goldsworthy. It is the second time in five years a team from Rutgers Business School has won the top prize at the ISM case competition.

