Risk Management

Acts of God & risk management
As a Supply chain professional, have you ever asked yourself what is the real risk to the company if a major interruption occurs to your supply chain? Examples are plenty: Tsunami in Japan, Collapse of the factory in Bangladesh, SARS epidemic in China, Snow storms in mid-West of United States, etc. By "real" risk, I mean the cost of losing business and revenue and in some cases damages to the business itself because of say a fire at a factory. In general, there are two types of risk: damages to your own facilities mostly covered by insurance and risk of supply chain interruption because of external interruptions such as the one stated above. Very few companies are insured against the latter. More importantly not very many companies can assess the amount of potential damages if say a supplier is unable to deliver for certain number of days or weeks or if it goes out of business. There are potential substitutes, for some, but the likelihood is that it will come at a much higher price and delays in the supply chain!

We believe, risk management as related to the supply chain, is a growing concern amongst the best run companies. The main question is what the level of risk is and the associated cost to the company would be, as well as potential lost revenue. And what can be done about it?

At Adexa, we have designed our Financial S&OP (FS&OP) system precisely to address these questions and allow you to assess your risk and potential losses based on events that can be simulated. In real-time, the users can see what the financial consequences over a given time horizon would be if an unexpected but inevitable event occurs. Some examples are, interruption I one supplier delivery and use of substitute supplier (if any), increase in prices due to (say) increase in price of gas or competitive pricing, loss of shipment because of piracy or bad weather, sudden drop in demand because of a political turmoil in certain region of the world, and ethical and/or safety issues regarding a key supplier overseas! Such events can be enacted in the system and financial consequences can immediately become visible leading to better decisions as to how to mitigate company risk.

Another important area in risk management is how much inventory is too much or not enough? The basic question is, given the volatility (stochastic) nature of demand, one needs to decide the amount of inventory needed at every level of the supply chain such that the service level is maintained at a certain level and keep the cost at its lowest. The way Adexa handles assessment of such risk and recommend inventory values by product and by customer (or groups thereof) is to assess the "likelihood" of inventory usage by a sophisticated algorithm that takes into account the probability density functions and interdependency of each material at every level of the supply chain so that an optimal level of inventory is recommended for every raw material, intermediate product and finished goods. The outcome is delivery of maximum service level to each customer at lowest possible cost.

For more information on risk management please drop us a line to info@adexa.com with the subject line "risk management."

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