Handling Supply Chain Disruptions

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With the recent volcano eruption in Iceland, major manufacturers with global suppliers have had to halt operations as flights were grounded throughout Europe. Earlier this year, an earthquake in Chile ground supply chains in the area, halting major food source supplies.

Can disaster planning really help prevent these supply chain disruptions? Are the risks associated with lean inventories worth the cost when operations are halted until supplies are re-stocked? Natural disasters like this, and even the current BP oil leak, can prompt manufacturers to look more closely at their master operating plans.

Predicting The Unpredictable

Paul Smith, VP, Transportation & Logistics, NPI, says that while natural disasters are extremely difficult to predict, all companies must develop contingency plans to help mitigate issues that obviously arrive during awkward and unpredictable times in business.

Smith points out that clearly outlining contingency plans can send a message to customers that service will never be compromised, regardless of the situation.

“That may include having inventory in other parts of the globe that can be used to fulfill customer commitments. This, of course, comes with cost, but sends a strong message to customers that no matter what happens throughout the globe, the manufacturer is prepared for any situation, which can be the differential to the customer when it comes to choosing your products over the competition’s,” says Smith.

Earthquakes, tornadoes, and other natural disasters may be impossible to plan for, but having alternative shipping methods in place is just one example of how contingency plans can quickly solve logistical issues during a natural disaster with little effect on the rest of your operation, or your customer's.

"In the case of the Iceland volcano, if it were to continue to erupt, the only contingency plans are to expand plans to truck as far south into lower Europe as possible and utilize southern Europe airports or to begin to increase dependence on ocean freight as a means," says Paul Steiner, Director, Logistics, NPI.

The Just In Time Effect

But when an unavoidable disruption takes place, how can you ensure your supply chain maintains its high level of performance?

"There will be times when ensuring a high level of performance may not be possible. Contingency planning is a financial exercise that balances service with costs. In order to develop full contingency plans, you would have to maintain large inventory levels. You would have to balance safety stock, increase lead times, inventory hold costs and transportation costs," says Steiner.

But with more manufacturers adopting just-in-time inventories, a supply chain disruption can have a domino effect on the entire operation. However, risks can be minimized and JIT inventory works very well the majority of the time.

"The risks come when there are large disruptions in the supply chain. Because you have planned for lean inventory, any adverse change in the market would have a larger effect on your business model because of the lack of inventory," says Steiner.

Steiner notes that manufacturers must learn to balance safety stock and additional inventory carrying costs versus transportation mode expenses. Balancing your express shipments and smaller lots versus economy shipments and bulk lots is also important.

"It is a constant balance between flexibility, delivery reliability (most susceptible to disruptions), lead time and inventory levels," he says.

Location, Location, Location

And when planning for a continuous supply chain, consider where your suppliers are located, vary them where possible, or find suppliers that can ship from other locations in the event of a disruption.

When determining local versus global suppliers and how their locations can affect your supply chain contingency plans, it is important to consider complex international laws, political landscape, implications of import duties and taxes and as well as the cost of disruptions.

"Lead times need to be fully understood for global suppliers and are longer due to ocean sailings, which can be 2-3 weeks. Air freight can always be used to move product in a more expedient matter and can be used as contingency. There is usually less control over production changes and greater difficulties in adjusting to schedule changes," says Steiner.

When disruptions do occur, getting the supplies you need in a timely matter will determine the alternative method for shipping materials as well.

"Typically, when dealing with a supply chain disruption, the costs of getting the goods you need when you need them will rise substantially because it will require alternative methods of transportation," says Smith.

Shipments that typically move via ocean can take 20-30 days to arrive versus Air Freight which can take from one to three days to get to you from anywhere in the globe.

"Obviously, with this improved time-in-transit, there is a large differential in the cost associated with these types of services. So, if the bottom line depends on improved time-in-transit, manufacturers should be prepared to pay for it," says Smith.

Contingency Plans

Another factor to consider in developing contingency plans is internal threats, such as strikes, breakdowns and stock outs. These are bit more controllable than natural disasters, but the key is to make sure you coordinate and communicate with your suppliers.

Whether the threat is internal or external, manufacturers need to be aware of the impact that the supply chain disruption will have on the customer.

"Most customers understand the sensitivity of natural disasters beyond our control. While the customer understands that issues like this can arise, they expect their suppliers to have well laid out plans to help remedy the situation to ensure that their needs are met.

"This is often the major differentiator with determining one supplier over another. Essentially, they will choose a supplier based on its ability to develop and ultimately implement contingency plans and/or changes in operations to help ensure that a high level of service and quality are always met no matter what the situation is," concludes Smith.

Paul Smith and Paul Steiner are executives at NPI, a privately-held company that helps large and medium-sized businesses implement transportation, telecom and IT spend management strategies that deliver immediate, measurable results. For more information, please visit www.npifinancial.com *[1].*

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