

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/312969856>

Mitigating the High Risk of Low Cost Items

Article · August 2016

CITATIONS

0

READS

12

1 author:



Yossi Sheffi

Massachusetts Institute of Technology

118 PUBLICATIONS 5,710 CITATIONS

SEE PROFILE

Mitigating the High Risk

of Low-Cost Items

Low-spend items may be a lesser priority for suppliers, yet critical components for the companies buying them.



By Yossi Sheffi, Ph.D.

How important are you to your suppliers? It's a question that companies need to ask when evaluating risk in procurement strategies. And it is especially important in today's fast-changing commercial environment, where suppliers' priorities can change quickly. Consider, for example, the rapidly growing market for products that take advantage of Internet of Things (IoT) connectivity. Suppliers such as Intel that prospered in more established markets like PCs are now investing in IoT applications.





Mitigating the High Risk of Low-Cost Items

“Companies shouldn’t overlook the risk of losing a vendor that makes basic yet essential parts. The loss of either could result in a significant supply chain disruption.”

— **Gerry Smith**, senior vice president of global supply chain, Lenovo

When considering procurement risk, it’s tempting to immediately associate high-spend, strategic items with the highest level of risk. But critical, low-spend items are often the riskiest because they can lack a high priority for suppliers more focused on larger-volume products. Of particular interest are items that are low cost and low volume but essential to the business.

For example, a cellphone manufacturer experienced problems securing camera components after losing its tier-one customer status. And despite its prominence as a farm equipment manufacturer, Deere & Company experiences secondary customer status from component suppliers that are more focused on customers of their vehicle components in the auto industry.

Categories of Risk

Practitioners have defined four categories of procurement conditions:

- **Tactical buys.** This category refers to common items with low volume and ready availability. Because the volume is low, transaction costs as a percentage of spend are high.
- **Leveraged buys.** These are high-spend commodities. Minimizing total landed cost is important to keep spend under control.
- **Strategic buys.** Items or services that provide a competitive advantage appear in this category. Companies frequently enter into long-term, deep partnerships with suppliers of these key items.
- **Critical buys.** This category covers essential, low-spend and hard-to-procure items. An obvious risk-mitigation strategy is to maintain high inventory levels.

The latter category is often the riskiest. Buyers of critical buys can be relatively low in the hierarchy from a supplier’s perspective. Also, dual sourcing may not be viable due to the lack of alternatives and high cost involved relative to spend.

Low Spend, Low Importance

Supply managers dealing with electronics are subject to this type of risk. For example, both General Motors and Verifone depend on a variety of electronic-industry suppliers. But many of those suppliers pay more attention to cellphone and computer makers that use the latest products. In many cases, these suppliers stop manufacturing and supporting the parts that GM or Verifone rely on.

Here lies the paradox. Makers of cars, commercial systems and many industrial systems prefer not to use the latest electronic chip but rather “tried and true” components. Consider BASF, the giant German chemical company, which has a policy of “three generations behind” in its IT implementation policy. When a chemical plant relies on digital controls, reliability and safety are more important than small performance improvements.

Moreover, in the dynamic electronics industry, suppliers are constantly shifting their gaze to other market opportunities. Consider Apple Inc.’s new 3D Touch technology that it launched with much fanfare as part of the iPhone 6s Plus unveiling in September 2015. As reported by *The Wall Street Journal*, some of the largest beneficiaries of the expected growth in demand for the new iPhone are suppliers of this specialist technology. Two key suppliers, TPK and General Interface Solution Ltd., found their fortunes changed with the arrival of 3D Touch. As key suppliers of this technology, they are expected to capture much new business from Apple going forward.

Of course, the items required by Apple will likely become the primary focus for these suppliers — meaning a shift in priority involving other items they manufacture could lead to obsolescence for other customers. Market changes like this mean that suppliers’ production priorities are often in a state of flux, and buyers of less commercially attractive, low-volume items must take these demand swings into consideration when assessing procurement risk.

These risks are not confined to the electronics industry, but those that have witnessed it can attest to the vulnerabilities and disruption. Gerry Smith, senior vice president of global supply chain for personal computer maker Lenovo, sums up the dangers: “Companies shouldn’t overlook the risk of losing a vendor that makes basic yet essential parts. The loss of either could result in a significant supply chain disruption.”

In short, low spend is risky where essential materials are involved, because the buyer might not be an important customer of the supplier.

Mitigation Options

There are a number of risk mitigation strategies for this category of low-spend/high-risk items. The obvious one is to keep relatively high inventory. Inventory carrying costs are, by definition, low for low-spend materials, and the strategy does not require supplier cooperation. Furthermore, as the risk varies over time, companies can adjust inventories.

Medical equipment maker Medtronic uses such adjustments to shield the company from adverse weather. During the hurricane period in South America, the company applies a “hurricane factor” in its safety stock levels to ensure that it has sufficient stock in the region to cover operations. Extra inventory of both finished products and parts can be used immediately after a disruption. Even if the inventory is insufficient to cover the entire recovery period, it allows crisis managers to “catch their breath” and organize a response — continuing operations and not affecting customers’ orders, while collecting data from suppliers, consulting with customers and launching various recovery efforts.

Changing engineering specifications to avoid uniqueness is an important mitigation measure for low-cost, essential items. This reduces the complexity of the material and moves it into the “tactical buy” category described earlier. Cisco, for example, tries to standardize parts where possible, using a “new-product resiliency index” it developed. This index includes such factors as the maturity of each part (is it close to its end of life?) and the uniqueness of the supplier (do we have others that can step in?).

Another approach to mitigation is to consolidate procurement in two ways. First, companies can consolidate buying of the critical parts by all product divisions across the company to the same supplier, then combine the procurement efforts with other companies to create a buying consortium — thus increasing the spend and the attention paid by the supplier to the company. Second, companies can direct the procurement of other, non-critical parts and materials to the critical supplier, thus making the company a more important customer.

Both initiatives — changing specs and consolidation — serve to move the critical part and its supplier to the “leveraged buys” category. Companies can also couple these approaches with investment, equity stakes, joint innovation initiatives and other such approaches, thereby moving the supplier to the “strategic buys” category.

Valued Customers

Companies should not automatically attach a low level of risk to low-spend items without considering their criticality. For critical items, companies should ascertain whether suppliers value their business sufficiently to go the extra mile when a crisis hits.

If they are low in the hierarchy, companies need to take steps to bolster these relationships. For example, after Lenovo faced shortages of disk drives following floods in Thailand in 2011, it entered into long-term agreements with disk-drive suppliers, effectively elevating them to strategic status.

There are many other ways to bestow strategic status on suppliers. Klaus Hofmann, senior vice president, global purchasing at Reckitt Benckiser PLC, a U.K. manufacturer of household and health-care products, says, “We’ve got a couple single-source suppliers purposely chosen for innovation capability, price and business-continuity planning, where they can support us from different factories if one goes down.” In another example, Cisco works with chosen suppliers on “get-well plans” that mitigate a supplier’s risk and reduce time-to-recovery. Cisco advises on measures such as the availability of backup power and the ability to execute an IT recovery strategy that help a supplier recover quickly when its operations are disrupted.

Risk Evaluation

Most companies are a minor customer to some of their suppliers, and that low-spend situation adds to the risk of disruption. The good news is, certain actions can help prevent many problems before they occur, or make the difference between quickly solving an unexpected issue and facing major shutdowns or delayed deliveries. What is critical to remember is that when creating risk management strategies or adjusting existing ones for supplier networks, low-spend does not necessarily equal low importance. Give these items high priority. **ISM**

Yossi Sheffi, Ph.D., is director of the MIT Center for Transportation & Logistics and author of *The Power of Resilience: How the Best Companies Manage the Unexpected*.