5 Supply Chain Trends You Need To Know In 2023

As the year is going to end, many supply chain executives will become embroiled in their firm's annual strategic planning process. It is worth reviewing the top trends that will be impacting supply chain management for the coming year and beyond before executives do that. What follows are the top trends executives are required to be paying attention to before their strategic planning meetings begin.

Inflation

In the United States, consumer prices were up 9.1% over the year ending June 2022. According to the U.S. Bureau of Labor Statistics, this was the largest increase in 40 years. It is worse in Europe. Introductory data from last Monday to October 31st reported Eurozone inflation running at 10.7% for October. Since the euro zone's formation, this is the highest-ever monthly reading.

This is a good time to start contemplating stock-keeping unit (SKU) reductions (reducing the number of products and product variations manufactured) for supply chain executives. The Sales Departments often fight these reductions, but the inflation environment gives supply chain executives extra ammunition to power forward with these initiatives.

As customers become more price sensitive, it is also pertinent to dig deeper into the product's bills of materials and see if there are raw materials and component inputs that are specifically responsible for driving higher product costs. Can the commodity be redesigned with lower-cost substitute inputs?

Pending Recession

The Central banks respond to high inflation by continuing to increase interest rates and thus slow economic growth until inflation is back to sustainable levels. In the United States, a sustainable level of inflation is defined as three percent or less. Frequently but not always rising interest rates tip a nation into recession. Anyhow, with inflation at such high levels, the chances of a "soft landing" bringing inflation under control without tipping the country into recession are very small.

For companies facing a recession, there is a playbook. It is hard to forecast dropping demand. The signs tend to lag behind what is happening in the market. Inventory write-downs are usual. Companies also tend to be slow to cut production. Companies that can monitor downstream demand signals and utilize that data to make more recurrent forecasts will see their forecasting accuracy improve much faster than companies that are using traditional forecasting methods.

Many companies work to preserve cash by paying their vendors more slowly. This needs to be done attentively, a company needs to ensure that they don't force their key suppliers to bankruptcy. Meanwhile, supply chain risk management solutions can be used to monitor the financial health of demanding vendors so that alternative sources of supply can be secured quickly if key vendors are in trouble.

Employee wage increases, turnover, and retention have been big stories all year. Employee demands for higher wages are likely to increase as inflation surges and the worker's spending power decreases. At the same time, as companies face a coming recession, they don't want to lock in higher wages at exactly the same point in time when the company's customers are becoming more price sensitive. This will be challenging to navigate.

N-Tier Supply Chain

All the covid supply disturbance brought home the need for better supply chain risk management. Risk management had been a hard sale. Multinationals knew that events could occur that could cost them tens or hundreds of millions of dollars. But such events were not expected. And many individual events that could occur were so rare they were labeled as “black swan events”. The consequence of this is that companies could not calculate a return on investment by improving their risk management capabilities.

Companies usually embrace improved supply chain risk management after the horse had already fled the burning barn. For instance, the auto industry embraced risk management after the nuclear disaster at Fukushima. Covid was a Fukushima-type of event that applied to all industries.

But as companies embraced advanced supply chain risk management solutions, they determined that while some of these solutions were not so good at identifying risks in real-time one tier up in the supply chain, they could not identify risks occurring in several tiers in the supply chain, the so-called N Tier problem.

Mckinsey did a survey in which just under half of the companies in their survey said they understood the location of their tier-one suppliers and the key risks those vendors face. Astonishingly, only two percent had visibility to their suppliers in the third tier and beyond. That matters because many of today’s most urgent supply shortages like semiconductors, happen in these deeper supply chain tiers. Becton Dickinson, like many other companies, had many supply chain problems because of covid. Around 80% of this global medical technology company’s disturbance was the result of problems in the N Tier supply base, not their Tier one suppliers.

Ascertaining who the N Tier vendors have historically been difficult, time-consuming, and far from accurate or complete. That is why this was a manual process that depended on cooperation from upstream tiers of suppliers in the discovery efforts. Many upstream suppliers are suspicious of this “inquisitive”.

Notwithstanding, there is now a technological fix. Everstream analytics has proven that with the combination of vast amounts of data, graph databases, and artificial intelligence they can do the hard job of identifying these N Tier suppliers with much less effort and better reliability.

ESG Compliance

Governments are increasing their demands for companies to prove that they operate maintainable and ethical businesses. In January 2023, the Germany Supply Chain Due Diligence Act will come into effect, requiring businesses to monitor supply chains for human rights violations and making sure that partners are not causing environmental degradation across their entire supply chain—the n-tier problem again. There have been supplying chain legislation before whose goal was focused on making sure various aspects of ESG (Environmental, Social, & Governance) performance were enforced by companies. But supply chain practitioners have never seen compliance legislation that was so broad and impactful. In the past, this kind of ESG legislation was focused on a specific risk domain, like child/forced labor or the 2020 Uyghur Forced Labor Act. Now we are seeing a move to all-encompassing ESG legislation with significant penalties—fines can be up to two percent of annual sales. Perhaps as bad as a fine is the brand damage that could result if a company is prosecuted.

Germany has the fourth largest economy in the world, so many multinationals will be affected by this. Multinationals might contemplate moving a regional office out of Germany to avoid this. That won't work. The European Union has similar legislation moving forward that may come to fruition in about a year and goes even further than the German Act.

Greenhouse Gas Reductions
PwC reports almost half of the assets under management are held by investment firms committed to decarbonization. Investor concerns about material risks from climate change have created new reporting frameworks, such as those by the Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-related Financial Disclosures (TCFD). Therefore, it is perhaps not surprising that not a week goes by without some big company either making a pledge to eliminate carbon emissions by 2040 or 2050 or documenting their progress on this journey. In a few industries, 90% of emissions occur in the supply chain. Certainly, achieving sustainability goals will need the participation of a company's supply chain teams.

Sustainability is a very vast topic, but a few points are worth mentioning. Firstly, the more digital a company's supply chain is, the more efficiently that company produces goods. Efficiency in matching supply to demand manufacturing goods and transporting goods all lead to lower emissions.

Secondly, companies with sustainability targets generally allow sustainability projects to have a lower return on investment. For a supply chain executive looking to improve the technology their group uses, those two facts mean it may be easier than ever before to get funding for supply chain technology.

Thirdly, our tools for collecting, cleansing, and reporting emissions are still somewhat immature. But progress is being made. At Oracle's recent CloudWorld, the company's efforts to improve its software's ability to report on emissions and other ESG goals were discussed. Oracle's reporting and planning solution allow companies to collect and standardize emissions data from multiple sources and manage all their sustainability data in one place. Once a baseline is established organizations can model short and long-term sustainability goals, align initiatives across their operations and make decisions based on an integrated understanding of sustainability, finance, and operations.

Finally, when it comes to emissions reductions there is a lot of low-hanging fruit in the supply chain realm. Presently, companies can make progress on emissions while saving money. But within a few years, that will no longer be true for many companies. At that point, companies will need to trade off achieving emissions goals with higher costs. That will be the point in time when we learn how serious companies really are when it comes to reducing greenhouse gasses.