



MAXIMIZING EBITDA, PROFITS, CASH FLOW, AND GROWTH FROM SUPPLY CHAIN INTEGRATION

By Bob Brennan, Head of Integrated Solutions, SGS Maine Pointe

How to Focus Your Integrated Supply Chain on Your Most Important Organizational Goals

In an integrated plan-buy-make-move supply chain, each link from procurement to distribution and from sourcing to customer satisfaction affects every other link. However, because the supply chain is so closely interconnected, any communication, capacity, or capability gap in one area jeopardizes all the others. Supply chain integration is only the first step.

In order to increase EBITDA, profits, cash flow, and growth, every process, activity, role, data flow, and technology must focus on meeting organizational goals; and leaders from the C-suite through procurement, operations, and logistics need to:

- Base decisions on their effect on the entire supply chain.
- Optimize planning, procurement, operations, and logistics to reach the highest level of maturity.
- Align people and information flow to ensure trustworthy data.
- Fit technologies to the problem.
- Encourage strategic thinking across the supply chain.

“A traditional approach to SIOP is no longer enough... By combining best practice SIOP processes with network design, executives can better understand cost breakdowns across the end-to-end supply chain... These new decision support tools enhance the SIOP practice by revealing ways to drive cultural and process change to optimize margins, resilience, and response.”
 - Jeff Staub, CEO, SGS Maine Pointe, in Chief Executive

A recent SGS Maine Pointe client, a manufacturer of high technology products, aimed to become more customer-centric, but functional silos and capacity challenges blocked their way. Working closely with the company's team, SGS Maine Pointe established a supplier conditioning protocol which clarified the company's expectations across functions; and set triggers in the sales, inventory, and operations planning (SIOP) process to identify obsolete inventory early on. Increased collaboration between engineering and other functions meant that new designs took better account of the constraints on suppliers (procurement), manufacturing (operations), and inventory management (logistics). The company eliminated a 15-week backlog and prevented future backlogs, while simultaneously increasing revenue up to 27%.

If the company had expected better customer relationships, without conditioning suppliers, improving SIOP, or adjusting the siloed mentality of engineering, their efforts to would have faltered.



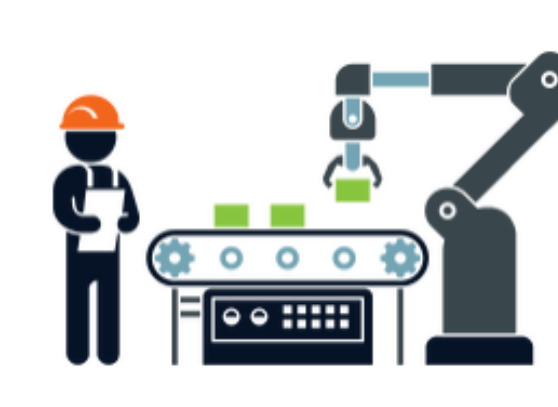
Plan

Subdue economic and consumer volatility with supply and demand forecasting, SIOP, and gap analysis



Buy

Increase your agility with stronger supplier relationships and optionality, onshoring, nearshoring, or offshoring



Make

Reduce costs and increase profit with automation, collaboration, and real-time business intelligence



Move

Optimize logistics from the warehouse to the last mile with data analysis and supply chain simulation

Basing Decisions on the Entire Supply Chain

In an integrated supply chain, processes, data, people, and technologies support each other. As a consequence, a single change anywhere in the supply chain affects everything (and everyone) else.

However, most C-suite leaders have their greatest expertise in one area, perhaps finance, operations, or technology implementation. This background may cause them to rely on solutions that match their background, so that they favor one part of the supply chain over another.

For example, a technology leader might recommend a company-wide enterprise resource planning (ERP) system. But that system might not be designed to handle the financial department's specific needs. While uniformity is good, insisting that every function in the company use the same software can be counter-productive.

Similarly, basing decisions on a universal rule such as “warehouses must be close to suppliers” can lead to problems. A warehouse that is close to suppliers might require such complicated logistics to reach customers on time and in full (OTIF) that any cost savings at the “buy” end are lost at the “move” end.

Finally, giving engineering (“make”) control of sourcing (“buy”) may lead to treating procurement as a transactional service whose sole role is to buy what engineering needs. That could cost money. Engineering might feel free to make what it could buy more cheaply if procurement were allowed to build the supplier pool or develop more strategic relationships with suppliers.

“Companies need to [involve] every part of the enterprise through the entire end-to-end supply chain—sales, marketing, finance, procurement, operations, and engineering—from the planning stage through fulfillment.”
 - Kevin Krot, Head of SGS Maine Pointe's Aerospace & Defense Sector, in Aerospace Tech Review

A manufacturer of heavy equipment needed to deliver machines in less than three months and productivity had plummeted. Changing that situation required several in-house changes: engineering instructions had to provide more detail instead of encompassing thousands of hours of work into two or three steps; step-by-step KPIs were then established so that everyone knew exactly where they were in a process on a given day, and quality assurance was established early on when corrections could be made more easily and at a lower cost, rather than delayed until the end.

After those changes, efficiency surged 60 percent and quality defects dropped 40 percent, allowing the company to make its delivery deadline. Equally important, for the first time the C-suite had visibility into progress at every stage and could intervene quickly to solve problems. If the company had focused solely on increasing productivity on the manufacturing floor, it would have missed all contributing problems, jeopardizing its deadline and its customer relationships and reducing supply chain visibility.

Optimizing Planning, Procurement, Operations, and Logistics in Unison

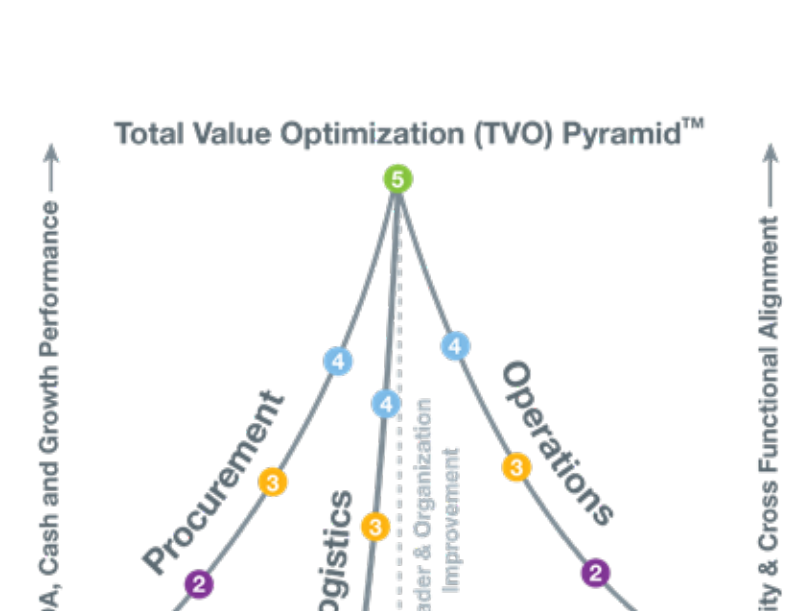
Total Value Optimization™ (TVO) moves procurement, logistics, and operations up the maturity pyramid from subpar performance to fully optimized. It ensures that:

- Data flows from one function to another, without silos.
- Data is timely, pertinent, and reliable so that data analytics provide the information the C-suite needs for planning.
- People throughout the organization collaborate to reach common goals and understand their roles and responsibilities, through leader and organization improvement (LOI).
- KPIs and metrics identify bottlenecks and potential problems before they escalate.
- Processes improve EBITDA, cash flow, and growth.
- Technologies are chosen to support those processes efficiently.

TVO is designed to bring all components of the supply chain together. When they move together, they ensure that a decision considers the consequences for each part of the supply chain.

“A more systems-level (end-to-end) approach, what we call Total Value Optimization™ (TVO), will ensure that you overcome short-term challenges while transforming your supply chain and operations into a resilient, agile, efficient, and digitally-enabled supply chain that grasps future opportunities.”
 - Jeff Staub, CEO, SGS Maine Pointe, in Chief Executive

Although it is far from the only cause, a merger or acquisition often puts the newly joined businesses at loggerheads over processes and standards. When a major manufacturer of commodity chemicals combined two companies into one multibillion-dollar enterprise, they rapidly realized that they needed to bring both companies into alignment. The company consolidated thousands of vendors into a few limited and strategic partners across all sites, giving those suppliers an incentive to respond rapidly, negotiate win-win deals, and innovate solutions to sourcing problems. In three phases, among other initiatives, the company optimized its truck fleet and rail operations (logistics), established common goals for leadership and teams across the globe (operations), and delivered \$35 million in cost savings.



What would have happened if any one of the TVO legs had been ignored? The supplier pool may have been optimized to better balance supply and demand, but logistical problems would have foiled attempts to deliver on time. The supplier pool and logistics may have been optimized, but poor communications and inconsistent KPIs would have left leadership in the dark about the progress and direction of the company.

Aligning People and Information Flow

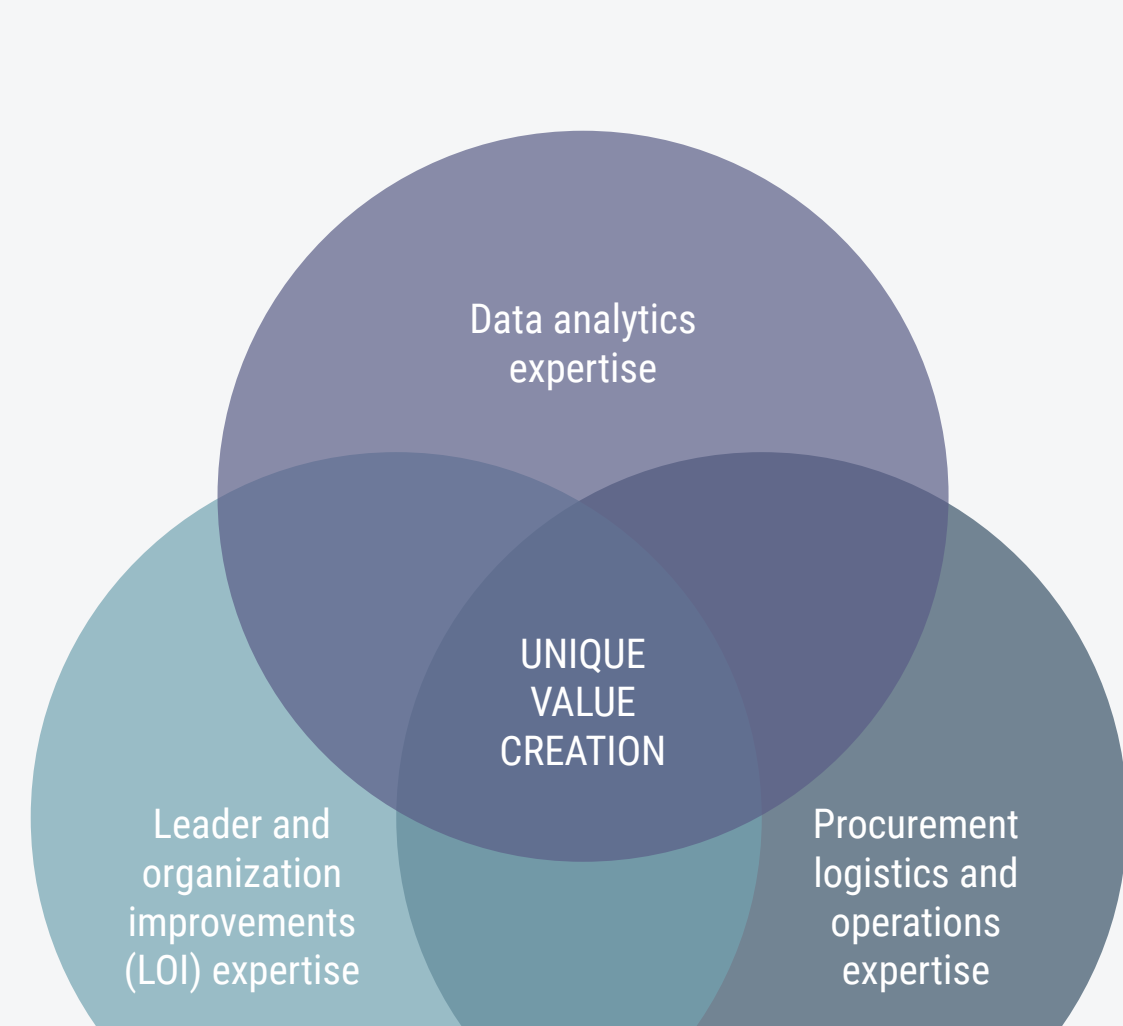
Whether the source of data is the output of a sensor or a report generated by a management operations program, at some point it is handled, interpreted, presented, and discussed by people. If it is captured in silos where no one who needs the data can reach it, if it is based on conflicting definitions of “timely” or “complete,” or if it arrives in a form no one understands, supply chain visibility plummets. People and data must be addressed together.

For data to be meaningful, companies need to align their people in four ways:

- Everyone knows their role: owner, responsible, consulted, or informed (ORCI).
- Everyone is aware of their own goals, the goals of the company, and the criteria (e.g., KPIs) used to measure movement toward those goals.
- Everyone is comfortable with the definitions and organization of the data they receive.
- Everyone shares the data other people need—there are no silos and no single owners of legacy information.

Data that is timely, reliable, consistent, and accessible across the organization enables the company to measure progress toward its productivity and growth goals. Equally important, it is the basis of data analytics which give management visibility into the supply chain to improve decision making.

“The first step is to ensure that the data used to make decisions...is reliable and interconnected to the other functions in the supply chain to understand the impacts upstream and downstream... Any change made in one function—research and development, procurement, operations, finance, sales, or logistics—affects all the others.”
 - Tiffany Pankratz-Umbehir, Head of SGS Maine Pointe's Consumer Goods & Retail Sector, in Food Processing Magazine



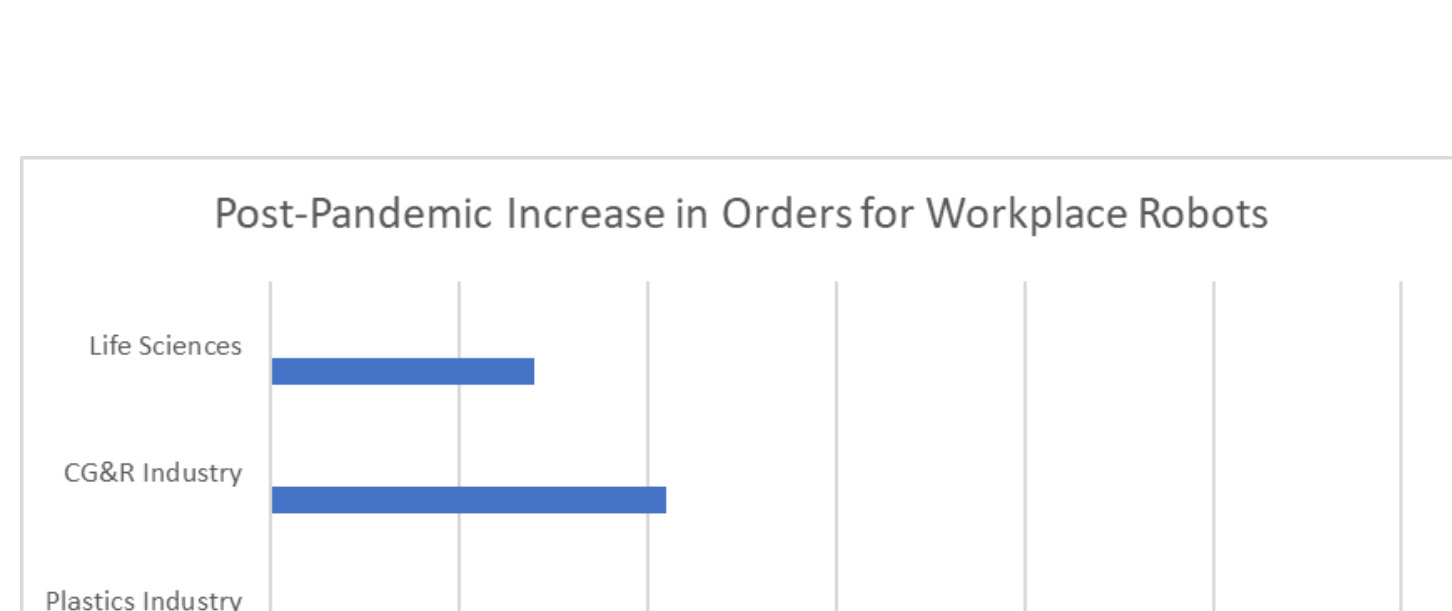
A PE-owned packaging products and services company had a decentralized, fragmented structure that was increasing in complexity and interfering with its ability to grow. If the C-suite had concentrated on demanding more information and better data, they would have continued to struggle because the data was not uniform and no one knew what data was important to anyone outside their silo. The company had to bring people and data in sync.

The leadership first had to agree with and take ownership of the new strategy. Then, working with procurement, logistics, and operations, they developed common categories for key items, a central pool of information, and agreed-upon dashboards. This effort combined cultural change, data analytics, and strategic thinking, along with the installation of procurement (PMOS) and logistics (LMOS) operating systems. As a result, the company improved EBITDA 20%, saved 5% across the enterprise, and achieved better and faster decision making.

Fitting Technologies to the Problem

After the pandemic, extraordinary labor shortages spurred an increase in robot replacements in every industry—and simultaneously created a shortage of technicians, data analysts, AI experts, and other professionals to build, maintain, and control those robots. Companies using robots also had to weigh changes in their security, energy, and safety capabilities and personnel.

As with every other decision a company makes, this one technology solution affected every other link in the end-to-end supply chain.



Source Data

Robots aside, technology is making companies more efficient with computerized maintenance management, ERP PMOS, LMOS, management reporting systems, and a slew of other operations, control, and reporting technologies. It has also made possible increased visibility into the supply chain through such technologies as simulation and digital twinning.

The decision on whether to modify a product with new features, for example, can be run through a model of the supply chain to see how the features affect not only sales but procurement, operations, and distribution before a commitment is made that could be more costly or less feasible than expected. Let's say the data shows that consumers order X number of products over T period of time; so the company should buy X number of supplies over the next T period. But what happens if raw material prices increase or decrease during that period, if the company changes suppliers, or if manufacturing is unable to keep up with demand? The supply chain simulation helps test those variations.

Running what-if scenarios through the simulation reveals opportunities to maximize profits, as well as avoid risks; address operations issues; and choose among sourcing, capacity, and geography options.

“For success in this [supply chain] transformation, cultural alignment and buy-in across the end-to-end supply chain, both internally and externally, are essential ingredients...to build out the true benefit of the digital replica of the supply chain and move on to how to optimize based on what the scenario planning is telling [the company].”
 - Nathanael Powrie, Managing Director, Data Analytics at SGS Maine Pointe in Institute for Supply Chain Management

Strategic Thinking along the End-to-End Supply Chain

The integrated supply chain requires concerted action between processes, data, people, and technologies. Moreover, an integrated supply chain is one in which every link—plan, buy, make, and move—is considered before decisions are made.

In practical terms, that alignment requires the C-suite to take action in many arenas:

- Establish uniform controls and metrics.
- Ensure access to meaningful data.
- Standardize and optimize processes, products, and inventory.
- Increase collaboration, efficiency, and throughput.
- Reduce complexity and redundancy in the supply chain.
- Understand and capitalize on the power of technology.
- Control costs and minimize the risks posed by inflation and recession.
- Evaluate and incorporate environmental, social, and governance (ESG) initiatives.
- Expedite win-win negotiations.

Companies need leaders in every area who understand strategic relationships and the effects of their decisions on areas outside their own. The emphasis on collaboration, the elimination of silos, and clear communication about company goals must originate from the C-suite.

In return, the C-suite receives unparalleled visibility into the supply chain and the ability to drive value in an increasingly volatile world. By enhancing the ability of their integrated supply chain—every process, person, activity, role, data flow, and technology—to meet company goals and achieve projected benefits, they achieve sustainable EBITDA, profits, cash flow, and growth.