Building a Strong Foundation in Supply Chain

Six Trends for Planning and Optimizing Operations

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Establishing the best supply chain possible is paramount to teams and leaders responsible for meeting the product and service needs of their internal and external customers. Fortunately, the supply chain world is constantly evolving and challenging leaders to reevaluate their place within the ecosystem. As innovations in process and technology are introduced, the speed of and visibility into the supply chain continues to expand. Today, there are more tools on the market than ever before to capture data that enables you to plan, analyze, and optimize your supply chain operations.

This guide explores six of the leading trends in supply chain, as well as the importance of having a strong foundation to support them.
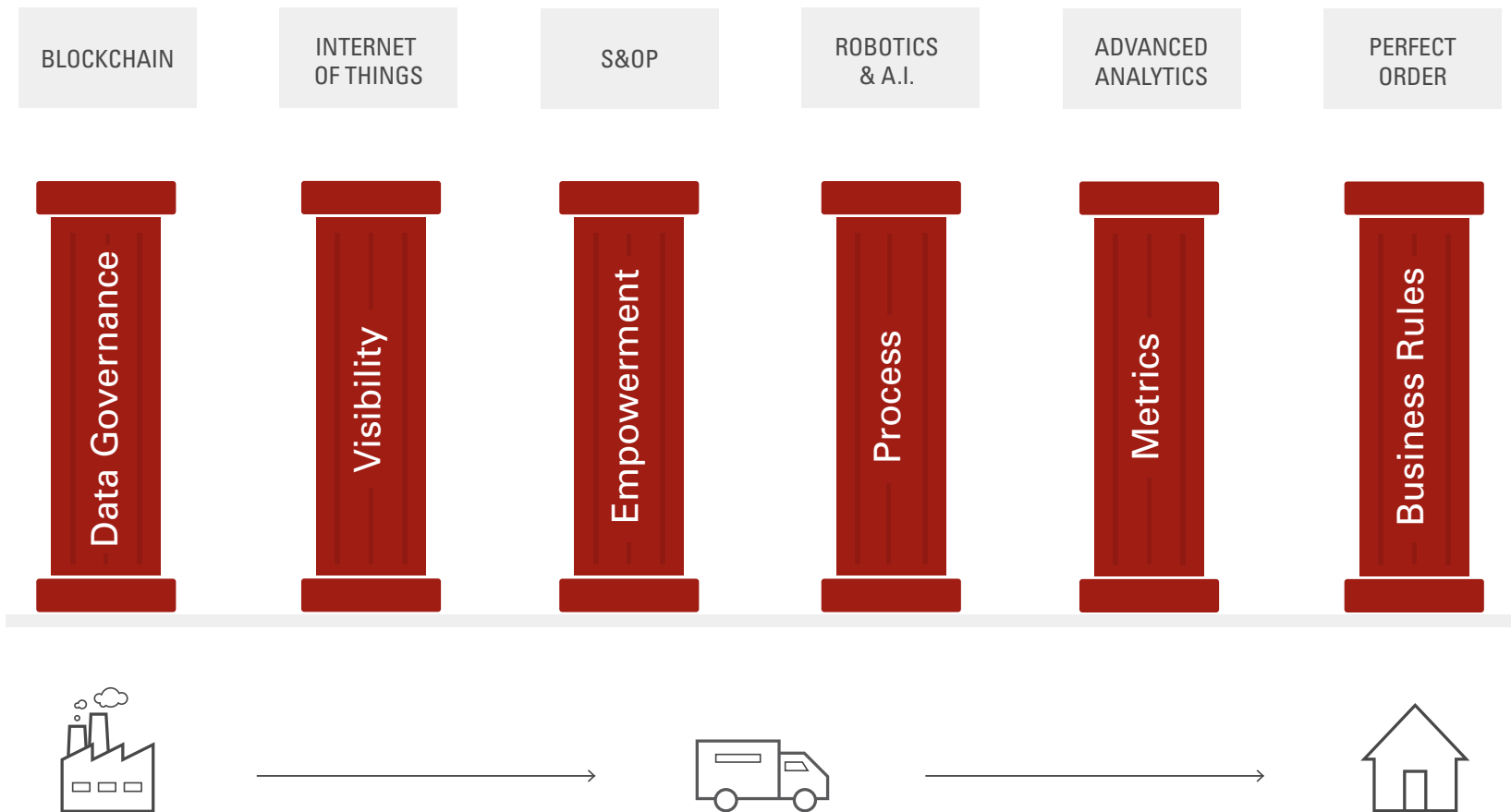
What's Next in Supply Chain?

While it's impossible to know for certain what the future holds, trends can be a reliable predictor of what's on the horizon. Our extensive work with supply chain has revealed several trends that we believe will be impacting supply chain in the near future. These include:

1. **Blockchain:** Create immutable end-to-end data visibility into all aspects of a product's lifecycle.

2. **Internet of Things (IoT):** Take advantage of operations data from deployed assets to improve analytics, maintenance, and efficiency.

3. **Sales and Operations Planning (S&OP):** Sales and operations organizations collaborate to align in order to ensure that materials are available to meet constantly changing consumer demands.

4. **Artificial Intelligence and Robotics**: Operations utilize technology in a way that efficiently eliminates bottlenecks in production.

5. **Advanced Analytics:** KPIs measure what success looks like across all functions related to supply chain and reduce risks the company faces. Know where material and information is at any time.

6. **Perfect Order:** Order fulfillment systems and processes are synchronized to ensure that your customers receive the right product, on-time, in perfect condition, with required documentation and invoicing without unnecessary user involvement.

When it comes to these trends, think about how you compare to your peers. Are you doing enough? Should you increase your focus in a particular area? Do you have a strategy to remain or become an industry leader? Ask yourself these questions, not just about the trends at hand, but also about the areas of business for which you are responsible and that you know best. It's about pushing forward and ensuring your company is doing everything it can to strengthen its supply chain operations for the long term.

Build Your Supply Chain Future on a Solid Foundation

BLOCKCHAIN	INTERNET OF THINGS	S&OP	ROBOTICS & A.I.	ADVANCED ANALYTICS	PERFECT ORDER

Data Governance

Visibility

Empowerment

Process

Metrics

Business Rules

Evaluating the Maturity of Key Supply Chain Components

To successfully address supply chain trends, it is critical that the foundational aspects of your existing supply chain are operating effectively. We recommend evaluating the maturity of the following key supply chain components before attempting to use the latest technologies.

SUPPLY CHAIN DATA GOVERNANCE
(BLOCKCHAIN, ADVANCED ANALYTICS)

- Data integrity is the key to supporting transformational technologies such as blockchain and advanced analytics. There must be a single source of the truth for each data point. Through governance, data should be cleansed, and control processes should be continuously followed to maintain data integrity.

- Establish a clear and implementable data governance model that guides how your supplier, parts, production, and customer data is captured, maintained, and secured in your systems.

- Coordinate supply chain data with the overall enterprise governance model to ensure that new partners or products follow company standards.

- Accessible dashboards and shared reporting tools provide insight into integrated systems, data warehouses, inventory, etc. Materials should be in the right place at the right time.

VISIBILITY AND TRACKING (IoT, BLOCKCHAIN)

- Have a strong understanding of how product moves through the supply chain and visibility to where it ends up is necessary before trying to integrate new technologies.

- Develop a plan for the data that will be captured by new technologies.

- Maintain solutions that work to meet your compliance goals. This is made easier when time is spent in the field with the personnel who enter the data to understand how solutions impact their jobs. (e.g., mobility, scanning, RFID).

- Take advantage of what your partners are generating. There are many mature partner data sources that companies frequently are not integrating into their data sets. (i.e., advanced ship notices and proof of delivery).

- Listen to the people entering your data. A review of processes and procedures can frequently identify gaps in data capture that can be easily fixed.

Optimizing Cash Flow by Identifying Unaccounted Inventory and Reallocating Assets

CHALLENGE & OPPORTUNITY

A global communications, hosting, cloud and IT services company, sought to implement an enterprise-wide Plug-in Cards (PICs) program to improve inventory management and cycle times, leading to lower capital costs and enhanced customer service.

SOLUTION HIGHLIGHTS

- Designed, developed, and deployed a new business process and mobile asset tracking system
- Implemented field inventory levels and auto-replenishment processes
- Provided field resources with inventory visibility via mobile devices to help accelerate incident management

KEY BENEFITS

- Increased the use of assets already in house, and avoided the purchase avoidance of new ones
- Enabled better management of field assets to reduce capital costs
- Improved spares availability for network maintenance
- Allowed the company to redefine its capital spend strategy, allocating cash for new strategic technologies while maintaining the customer experience
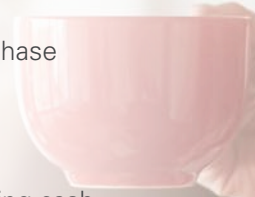
STANDARDS AND BUSINESS RULES (PERFECT ORDER)

- Evaluate your purchase-to-pay process to enable a repeatable and reliable fulfillment model.

- Business need to run based on the policies and standards that are established by leadership. These standards need to cascade through your business rules that drive systems configurations, process flows, and workflows.

- Everyone must understand the end-to-end process – not just their individual steps in the process. Shortcuts in one step of the process often cause increased workload on downstream steps.

EMPOWER YOUR EXPERTS (S&OP, ADVANCED ANALYTICS)

- Implement repeatable and standardized processes and tools across the planning group to allow your experts to spend their time utilizing their skills instead of executing the process.

- Make clean data available. We often hear that planning organizations spend over half of their planning cycle just getting data clean and consolidated to get to a forecast. This leaves no time to think it through to provide the best plan for the company.

- Eliminate silos across departments to ensure that planners have the information they need to be successful. This is the foundation of S&OP, but before you can effectively run, you must "talk." Improve communication channels, ensuring planner access to key organizations is in the S&OP process.

Understanding Procurement to Define a Roadmap for People, Processes, and Systems

CHALLENGE & OPPORTUNITY

A significant portion of an energy company's spend was not managed by category or strategically sourced. It needed to improve operating costs, as well as improve service levels and quality.

SOLUTION HIGHLIGHTS

- Conducted a procurement assessment
- Identified immature, non-standard processes that caused complexity, inefficiencies, and reactive execution capabilities

KEY BENEFITS

- Provided a new strategic direction for the procurement team
- Defined a roadmap around people, process, and systems across procurement, estimating, and engineering teams

Materials Management Program Focuses on Optimization and Continuous Improvement

CHALLENGE & OPPORTUNITY

One of the largest producers of NGLs and one of the largest natural gas processing companies in the U.S. had a dispersed distribution network with local warehouses being managed manually, along with low inventory turns, and needed support in designing a program.

SOLUTION HIGHLIGHTS

- Conducted cross-functional workshops to develop conceptual design and future state processes and socialized them with executives across the organization
- Led implementation team to ensure all process, organization, and technology components maintained alignment with the solution design

KEY BENEFITS

- Generated a business case that demonstrated more than $5 million in process improvement savings annually
- Facilitated a scalable materials management capability that aligned to enterprise initiatives focused on optimization and continuous improvement

PROCESS COMPLIANCE (ARTIFICIAL INTELLIGENCE, ROBOTICS)

- Adding technology to automate or facilitate a process could prove to be costly if there is not a full understanding of the current state. Spend time on whiteboards envisioning these processes before technology begins to play an even bigger role.

- Determine where your gaps exist and the opportunities for improvement.

- Engage your team. Solicit opinions, and listen to their challenges. While technology can facilitate a process, a quick process change could provide a significant portion of the efficiency gains targeted by automation.

METRICS (ADVANCED ANALYTICS)

- Everyone wants to use advanced analytics, but frequently it's without agreed-upon metrics to ensure you're measuring the right thing.

- Challenge the standard metrics. Are old industry standards right for your company today?

- Make sure you have the right data to support your metrics.

- Once you define your metrics, set a baseline and then continually manage to the metrics to drive behavior.

Enhancing Quality Through Technology and Lean Tools

CHALLENGE & OPPORTUNITY

A company that designs and manufactures aerostructures for both commercial and defense customers around the world was challenged to increase build rates while continuing to drive down defect rates to world-class levels.

SOLUTION HIGHLIGHTS

- Facilitated root cause corrective action for high-impact quality issues
- Performed process failure modes and effects analysis to proactively identify and eliminate defects
- Led implementation of new tablet-based augmented reality inspection software allowing for accurate, real-time defect detection

KEY BENEFITS

- Improved communication related to quality issues with downstream internal process partners and customers
- Increased responsiveness to quality events, and provided thorough corrective action

Common Reasons for Missing Foundational Components

Our experience has shown that many companies want to look to the future, but are missing the key foundational components necessary to be successful. Common reasons for missing these foundational components include:

- Lack of a transformational roadmap for the supply chain organization that is aligned with business objectives and vetted with business cases to ensure the company remains on its strategic path

- Rapid growth often triggers a "we'll capture that data later" mindset, especially with organizations that are in a race to build out their infrastructure to meet demand

- Growth through M&A without tying together the operational systems results in extensive manual processes, spreadsheets, and gaps

- Not getting the most out of your current systems due to poor change management or misaligned incentives

- A perception that it is too expensive to catch up, which results in shortcuts that, in the short term, save time and money

- Exclusive focus on core competencies (i.e., manufacturing, gathering/processing, customer service) at the expense of supply chain, limiting innovation and maturity growth

- Traditional supply chain and procurement leaders can get so focused on volume and the workload required to operate the business that they become complacent or don't know how to make the changes required to drive efficiency

- Not looking outside the company to take advantage of industry or cross-industry thought leadership on how to accurately structure a procurement and supply chain organization for cost savings, planning, and growth

Tackling Supply Chain Trends

Current innovations in the supply chain industry can play a major role in improving any company's existing supply chain capabilities. While some companies may be ready for cutting-edge technologies such as blockchain or data capabilities presented by advanced analytics, others may need to make sure the supply chain components they've already worked hard to put in place are meeting expectations and can support adjustments.

Preparing your organization for what's next can be accomplished by keeping a focus on the foundational supply chain aspects that have been identified in this guide. A supply chain maturity assessment will help you determine where your organization is currently and where you should be going. This approach defines a strategic roadmap for your company to achieve the right fit maturity level at a pace that meets both business needs and identifies your ability to change.

Differentiate Your Supply Chain

Rethinking how the supply chain organization interacts with the company's core functions can be a differentiator that gives you a competitive advantage. There are many companies in the market looking for opportunities to run some or all of your supply chain functions. They look at your company's core functions as potential customers. And you should do the same.

Management Consulting at Perficient

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We have helped organizations across these and other industries transform:

- Aerospace and Defense
- Automotive
- Consumer Markets
- Energy and Utilities
- Financial Services
- Healthcare
- High Tech
- Life Sciences
- Manufacturing
- Telecommunications

Core Supply Chain Management Capabilities

PROCESS OPTIMIZATION

Customer and Market Segmentation

Process Design Improvement

Performance Management

Financial Reporting and Dashboards

Efficiency Modeling

Procure-to-Pay

SUPPLY CHAIN MANAGEMENT

Process Maturity Modeling and Evaluation

Strategic Roadmap Development and Implementation

Strategic Sourcing and Spend Control

Cycle-Time Reduction

Inventory and Materials Management

Field Asset Tracking and Optimization

Sales and Operations Planning (S&OP)

TRANSFORMATION MANAGEMENT

M&A Integration

Organizational Change Management

Business Transformation

Strategic Planning

Re-organization

PMO Maturity

End-To-End Training and Development

Meet the Author

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Bob Vanek has more than 20 years of experience in delivering supply chain solutions across a variety of industries. In previous roles, he served as a subject matter expert at Slalom Consulting and Accenture.

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