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executive report

Four Fundamental Demand-Driven Steps to Achieving Supply Chain Excellence.

A strategy for giving your supply chain management more pull.

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overview

Manufacturing and distribution companies today face a high level of uncertainty caused by the ongoing twists and turns of globalization and other economic and political dynamics. This uncertainty is driving many businesses to seek a better way to compete locally and globally.

Many are finding new hope for success in a set of business principles called Demand-Driven Supply Networks (DDSN).

Based on research by AMR Research®, Demand-Driven Supply Networks are characterized by the focus on customer demand, rather than the traditional focus on materials and products that drive manufacturing. In short, DDSN concepts require many companies to shift from their traditional push-based supply chain to a pull-based, customer-centric approach.

The stakes are quite high. AMR Research indicates that when companies fail to adequately focus on customer demand, they incur an average cost disadvantage of 5 percent of revenue due to poor forecast accuracy.[1]

To help customers put the principles of pull-based supply chain management to work, SSA Global has applied its extensive business and application expertise to develop a Demand-Driven Supply Chain (DDSC) business strategy. Through a combination of sound business practices and SSA Global enabling technologies, manufacturing and distribution companies can transform their supply chains from the traditional manufacturing focus to a customer-centric focus that drives new efficiencies throughout their businesses.

This executive report will provide manufacturing and distribution companies with an analysis of DDSC concepts and will discuss the critical success factors for companies seeking to implement Demand-Driven Supply Chain principles.

1 Kevin O'Marah, Joe Souza, AMR Research, "DDSN: 21st Century Supply on Demand" August 12, 2004, pg 2.

executive summary

AMR Research defines a Demand-Driven Supply Network as a system of technologies and processes that senses and reacts to real-time demand across a network of customers, suppliers and employees.[2] Demand-Driven Supply Networks offer business leaders more than just a new phrase to describe past initiatives. By adopting DDSN principles and transforming your business so it more closely monitors and responds to demand, you stand to significantly improve overall business performance. A DDSN approach can lead to more on-time deliveries, higher order accuracy, and better inventory management. Any one of these can lead to higher profits. Combined they can produce a leap forward in profits, customer satisfaction and the ability to better respond to changes in the marketplace.

The SSA Global Demand-Driven Supply Chain strategy is a series of practical actions that can lead to a company-wide transformation. The strategy is organized around these four fundamental steps companies can take to achieve the promise of being demand driven:

- Understand Demand: Put in place the tools and processes that enable your organization to capture and analyze data that reflects actual demand.
- Plan for Demand: Base your long-term supply chain strategy on a true picture of demand.
- Respond to Demand: Base your near-term tactical production and financial management actions on a true picture of demand.
- Shape Demand: Use demand information to drive the tactical and strategic actions your organization takes to develop, produce and market demand-driven products.

The four steps correspond to the role that demand plays in the overall value chain of business. Taken together, they create a single, collaborative planning continuum that can translate into significant business benefit.

[2] Ibid., pg 3

Understand Demand

Analyze demand at end point of supply chain

What we mean: Develop forecasts and manage your supply chain based on data captured at the point of consumption instead of generalized or historical data. Create processes that enable you to analyze the data and revise your forecasts as frequently as your business requires.

Why it's critical: Your forecasts are only as good as the accuracy and timeliness of the data on which they are based. Virtually all manufacturing and distribution companies operate in a supply chain that is complex on one or more levels. Often the products being manufactured are complex. The supply chains that feed the manufacturing process with raw materials or components are usually complex and extend over wide geographic areas. And, of course, the distribution networks that move materials and finished products are complex.

With the inherent complexity of manufacturing and distribution supply chains comes a need to give every participant in the process the best possible information on which to act. The implications of flawed data are significant to every participant, but are particularly acute as you move up the supply chain. AMR Research describes this challenge in terms of a "bullwhip effect" where the variability of a single action or data point has a more dramatic effect as you move away from the source of the data. Disruptions in the flow of accurate and timely information ripple back through the supply chain creating uncertainty and inefficiency.

Misreading demand can be costly. For example, many apparel manufacturers have been left with millions of dollars in unwanted merchandise when they have been slow to react to emerging consumer preference for a certain type of shoe, sweater or other consumer item.

When there is uncertainty about demand, companies operating upstream in the supply chain must compensate by having more inventory and slack in their extraction, production or distribution processes. According to AMR Research, the bullwhip effect was a major contributor to the $3 trillion in inventory that was locked up in the U.S. and European supply chain as of June 2004.[3]

More accurate and timely demand data will enable supply chain participants to confidently reduce the time and material buffers they have in place.

Make it pay: Analyzing demand at the point of consumption can lead to better forecasts, better analysis, better business operations and higher customer service levels. Aberdeen Group® has quantified the benefits of improved demand management. In its December 2004 "Demand Management Benchmark Report," Aberdeen says, "More than 85 percent of all companies that have implemented a program to improve demand management have generated significant improvements in key customer-facing performance." The report cites a 4.7 percent improvement in gross margin, a 24 percent gain in inventory turns, and a 13 percent improvement in forecast accuracy.[4]

[3]Ibid., pg 1
[4]Aberdeen Group, Inc., "The Demand Management Benchmark Report," December 2004, pg 2

Analysis by SSA Global suggests that combining excellence in demand management with other business processes can also help manufacturing and distribution companies to better focus on the 10 to 20 percent of their customers who account for 80 percent or more of their revenue and profit. By using advanced demand planning tools and processes, companies are positioned to leverage other advanced technologies in business intelligence, product lifecycle management, customer relationship management and supplier relationship management. For example, advances in analyzing buying patterns are now available to help improve forecasting accuracy.

What you need to succeed: Demand planning applications

Capture actual demand accurately and reliably

What we mean: Use data collected at the point of sale to develop production forecasts that reflect what the market is seeking. Incorporate into your forecast ancillary activities such as promotions to make sure your demand signals are timely, accurate and reliable.

Why it's critical: The first step to a perfect order is an accurate order. Getting more accurate, actionable information at the "point of close" is a key business challenge in a market where the demand for customized products, packaging and distribution is growing. When a company has an efficient mass customization process in place with technologies supporting custom needs analysis, quoting, pricing, configuration, and order management, they are positioned to attain a higher return on investment (ROI) than competitors. Highly developed mass customization processes, can reduce the time from lead identification to receipt of an order. For one manufacturer, this meant a reduction of the typical proposal time from four weeks to between one and two days. This process improvement will free up valuable internal resources. Capturing the right information at the point of sale will deliver much more accurate demand forecasts and can even enable a company to better shape demand and influence the overall market.

Make it pay: Connecting the supply chain with real demand pays off at many levels. The initial payback will be by freeing up resources in the sales cycle. Accurate order capture can also cut the costs of returns and back orders significantly, impacting the bottom-line directly. The longer-term impact can be even more profound when more accurate market information can be used for operational planning and longer-term demand forecasting. And finally, this strategy can impact the overall market position as the company can now be more responsive to customers by giving faster service, offering a more versatile product line and giving customers and dealers new flexibility in the sales process. Companies can build a lasting impact on the market dynamics by pre-empting competitors' moves through faster new product introductions (NPIs) and responses to requests for proposals.

What you need to succeed: Customer relationship management applications

Plan for Demand

Align your supply chain infrastructure based on demand

What we mean: Base your long-term investments in facilities, materials, labor and supply chain partnerships on the source and composition of your demand.

Why it's critical: Globalization has put more time and distance into the supply chain at a time when customers are asking for faster responses and more product variety. These forces combine to put extreme pressure on you to accurately anticipate demand. In a far-flung supply chain, once goods or raw materials start moving from point A to point B, it becomes difficult to make adjustments and rectify mistakes. Similar precision is important in the capacity and versatility of manufacturing plants or distribution centers. Your facilities must be located and staffed in such a way that you minimize the time and expense of transportation and have the capacity to quickly respond to complex and changing product requirements.

Make it pay: Companies that effectively leverage demand data to make strategic decisions about their supply chain infrastructure can minimize transportation, labor and materials costs over the long-term. Aligning your supply chain infrastructure based on demand helps achieve the lowest possible fixed and variable costs. It positions you to plan for the right capacity and to more easily and quickly adapt to changes in requirements.

What you need to succeed: Network design, demand planning and transportation planning applications

Manage inventory levels based on demand

What we mean: Establish inventory policies based on a thorough analysis of demand trends. Take a strategic approach to supply chain relationships to assure the most cost-effective compliance with inventory policies.

Why it's critical: The difference between showing a profit and showing a loss often can be traced to how well you manage your inventory. Having the right amount of inventory in the right place at the right time contributes greatly to an efficient and successful operation. Focus on moving the wrong inventory through the supply chain and you will end up with inventory you can't move or inventory shortages that prevent fulfilling your customer requirements.

It's critical that you minimize inventory and strike the right balance between stockout risk and over spending on materials. Using demand information captured at the point of consumption to develop your inventory policies will produce the best possible approach to safety stock levels and help you optimize the movement of materials and products from point to point.

Make it pay: Managing your inventory levels based on demand will reduce your inventory costs. It will enable you to stock the inventory that addresses actual demand, lowering risk, lowering your costs and helping you increase your customer service levels.

What you need to succeed: Inventory planning applications

Respond to Demand

Directly link financial goals and production planning

What we mean: Take a strategic approach to Sales and Operations Planning (S&OP) that extends its focus beyond aligning demand, supply and financial metrics. Directly apply the demand and supply data revealed by ongoing S&OP updates to drive better manufacturing operational efficiency.

Why it's critical: The best demand plan is produced when the greatest number of input sources is compiled into a single demand forecast across all operations. The demand and supply input captured in S&OP updates is critical to the formation of the most complete picture of true production requirements. The truest picture of production requirements is essential for manufacturers to mitigate problems associated with disruptions in supply and changes in customer requirements. Maintaining the most precise production plan possible will assure that customer service targets are met.

Make it pay: Continuously synchronizing supply and demand by bringing together S&OP and production gives you insights to realize overall corporate goals. With a structured, collaborative S&OP process, decision-makers can evaluate alternatives based on a more accurate assessment of the business, improve the effectiveness of mid-course corrections and gain full visibility of the impact of decisions on corporate financial goals. In their report, "Linking CPFR® and S&OP," Ron Ireland and Colleen Crum, both principals with Oliver Wight®, provide quantifiable benefits of better leveraging internal and external collaboration. They cite forecast improvements of 10 to 40 percent, in-stock improvements of 2 to 8 percent, inventory reductions of 10 to 40 percent, customer service improvements of 18 to 25 percent, productivity improvements of 13 to 20 percent, and purchase cost reductions of 9 to 13 percent.[5]

What you need to succeed: Demand planning, inventory planning, replenishment planning, supply chain planning and collaborative applications

Leverage event management to drive response to customer demands and planning

What we mean: Implement real-time event management to detect unexpected changes in demand and supply as they happen so you can make adjustments in manufacturing and the supply chain in hours or days rather than weeks or months.

Why it's critical: The prevalence of just-in-time manufacturing and the corresponding customer expectations for fast response deprives manufacturers of the time they formerly had to respond to fluctuations in demand. Traditional planning applications and processes generally require several weeks and a major revision of the production plan to adapt to changes in demand. Managers who must rely solely on a planning process geared for the long-term often find themselves trying to mitigate the costs of lagging production schedules, missed shipments and spiraling costs after the fact.

By contrast, event management applications quickly flag events such as depleted inventories, delayed shipments, or spikes in customer demand. As a result, managers see a problem or opportunity in virtual real-time and can develop and implement a targeted tactical response that avoids

[5] Ron Ireland and Colleen Crum, Oliver Wight Americas, Inc., "Linking CPFR and S&OP,", page 3

the time and expense of completely regenerating the production plan. Effective event management is especially useful in organizations manufacturing and distributing multiple products in multiple markets. Event management applications often can address a problem automatically and help manufacturers effectively address multiple unexpected events.

Make it pay: The improved visibility in supply chain events can produce a wide range of business benefits. Reducing the time it takes to respond to customer needs or unplanned disruptions gives companies an opportunity to beat the competition in filling an order and in quickly addressing supply chain problems. These faster response times can contribute to more revenue, more profit and an increase in customer satisfaction. Benefits extend to the supply chain as you are able to collaborate more effectively and in real-time with suppliers, distributors and other partners.

What you need to succeed: Event management applications

Plan production based on actual demand

What we mean: Base production planning as close to actual demand as possible. Avoid production just to fill up available capacity. Schedule complex production operations in real-time or near real-time to respond quickly to new events such as last-minute customer orders, breakdowns or raw materials shortages.

Why it's critical: Matching production to demand is critical to limit unnecessary costs stemming from overstocks and obsolete parts and products. When production plans are based on someone's "superior judgment" and not a specific demand forecast, the likelihood of inventory imbalances significantly increases, driving up materials, storage and logistics costs. Implementing real-time scheduling overcomes the limitations of traditional approaches to production planning which are generally geared to change in intervals of weeks or months. Being able to modify production on a short-term, case-by-case basis without incurring the expense of scrapping an overall production plan will reduce your operational costs.

Make it pay: Applying real-time scheduling applications and processes to preclude the need to alter a production plan can reduce production process time, increase cash flow, increase customer satisfaction and improve your competitive advantage.

What you need to succeed: Supply chain planning and manufacturing scheduling applications

Communicate demand upstream

What we mean: Let suppliers know what levels of inventory are tied to your production forecast and share with them the time frame in which you need the products shipped based on your schedules, production capacity and customer requirements. Collaborate with your suppliers and share your demand plans online or via direct communication with individual suppliers.

Why it's critical: Communicating demand upstream is key to accurately managing your inventory levels and ultimately your customer satisfaction. By collaborating closely with your suppliers, you can reduce your uncertainty in their ship dates and their uncertainty in your required lead times. By keeping them informed of your inventory needs, you can ensure that there are no interruptions in your operations due to inventory shortages or any unnecessary costs related to inventory overages or stockouts. By maintaining regular collaboration with your suppliers, you can avoid emergencies that can disrupt your production and result in failing to meet customer requirements.

Make it pay: Providing two-way visibility to keep business partners informed can reduce unexpected production interruptions and inventory overruns. Close collaboration with partners can expedite charges, increase cash flow, increase customer satisfaction and improve your competitive advantage.

What you need to succeed: Supplier relationship management and collaboration applications

Shape Demand

Develop demand-driven products

What we mean: Adopt a formalized process for connecting engineering and the supply chain so demand information is integrated into the development process. Use this formalized process to achieve greater efficiencies in new product introductions and engineering changes.

Why it's critical: Customers today expect more choice and faster availability of new products. For manufacturers, this means getting the product offering right the first time and making it available quickly. As a result, a company's new product introduction process has taken on more strategic importance.

Being able to introduce new products that address specific demand and being able to adapt product development and introduction to changing requirements are essential for success. Critical to this is getting precise demand information into the product development process early where the majority of the supply chain cost associated with a new product is determined.

Make it pay: Integrating engineering with Computer Automated Design (CAD) and production can result in savings of 50 percent or more in the engineering department. Introducing Product Lifecycle Management as a strategy can have an even more profound impact on NPIs. With web-based technology, a designated employee in purchasing can use a portal to gain access to detailed product information. For example, this process can identify what hazardous materials a prospective vendor uses which can be an important regulatory compliance consideration. In addition, identifying demand-driven product requirements early help achieve better inventory management and manufacturing efficiency.

What you need to succeed: Product lifecycle management applications

Analyze pricing and promotion strategies

What we mean: Adopt formal processes for analyzing prices and the financial return on marketing programs. Use the information to minimize overstocked products and slow moving inventory through targeted promotions.

Why it's critical: Companies today are faced with increased profitability targets, mounting competitive pressures and the proliferation of new sales channels. As a result, it's critical they manage demand to optimize profits. This requires analytical tools and processes capable of analyzing the financial effectiveness of past promotions. Accurate and detailed information about promotion effectiveness and the implications of pricing options can be used to determine what products should be promoted, where, when and how.

Make it pay: Shaping customer demand through targeted, cost-effective promotion strategies can optimize revenue and profit by reducing inventory and promotion support costs, minimizing out-of-stock problems and increasing sales volume. Linking the pricing and promotion analysis to production and the extended supply chain can lead to improved efficiency for your company and its supply chain partners.

What you need to succeed: Demand planning, promotion management and event management applications

conclusion: the SSA Global analysis – action – alignment continuum

Going beyond analysis

The analysis presented here has been intended to help business leaders understand the fundamentals of what it will take to become a demand-driven enterprise and how it can produce lasting business benefit. Taking action based on the four areas of concentration described here can help guide manufacturing and distribution companies in their transformation into a demand-driven enterprise.

At SSA Global, we understand that a major transformation such as moving from a factory-oriented supply chain to a customer-centric model doesn't happen easily. In most organizations, the technology and business processes have evolved over time and are not easily abandoned by your employees and management team.

Taking transformational actions

With this in mind, SSA Global offers advanced solutions that can be implemented today to start your organization's transformation process. These solutions are not a radical departure from the trusted information technology that SSA Global has provided over the years. They build on the enterprise solutions currently operating in your business. But they help you take the next step in the demand-driven transformation and, in doing so, can lead to a potential breakthrough in your company's ability to shape end demand and improve your response to the end customer.

The SSA Global solutions supporting the Demand-Driven Supply Chain strategy have been designed to increase supply chain responsiveness by decreasing delays that are common in most manufacturing and distribution supply chains. These include information delays — the time it takes to move information and the time it takes to process the new information. The solutions also address supply chain delays — the time it takes for your organization and supply chain partners to respond to the new information with specific actions.

SSA Global has a complete portfolio of solutions that can help your company take the steps necessary to better understand demand, plan for demand, respond to demand and shape demand.

Achieving complete customer alignment

The end game, of course, is transforming your organization so it is in complete alignment with customer demand. This requires the technology and processes to assure rapid movement of the right information throughout your organization and supply chain.

SSA Global is committed to helping customers do what's necessary to implement a Demand-Driven Supply Chain Strategy – from analysis – to action – to complete customer alignment.

Let's get started.

Give us a call. We're ready to work with you to take the next step.

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