



# Performance Made **Responsive**

Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

---

## Contents

<b>The Perfect Storm</b>	<b>1</b>
<b>Demand Driven Supply Networks (DDSN) To The Rescue</b>	<b>2</b>
<b>An Introduction to DDSN</b>	<b>3</b>
<b>The QAD DDSN Solution</b>	<b>3</b>
<b>Understand Your Consumers' Demands</b>	<b>4</b>
<b>Planning for Future Demand</b>	<b>5</b>
<b>Responding to Your Demand</b>	<b>9</b>
<b>Shaping Your Demand Response</b>	<b>11</b>
<b>Conclusion</b>	<b>16</b>
-Evolution not Revolution	

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

## It's Official: U.S. Economy in Recession

The National Bureau of Economic Research, a panel of academic economists charged with the official designation of business cycles, said that the United States economy has been in recession since December 2007, when economic activity peaked.” From the New York Times: Dec 01, 2008.

## The Perfect Storm

Leading business experts throughout the world and across most industries are referring to the current economic crisis as the “Perfect Storm.” In addition, leading technology analysts cite a weakened financial system, diminished consumer purchasing power, and rapidly changing market and financial conditions as just a few of the forces driving this perfect storm. Throw in the fluctuation in energy costs, raw materials and commodity prices, increasingly tighter government regulations, and the plunge in consumer faith in manufacturers’ ability to deliver quality products, and there is no doubt that consumer product and food & beverage manufacturers face one of the most challenging times in recent history.

During the past several years, leading consumer goods manufacturers have made substantial investments in their own supply chains, improving forecasting, order management, transportation management and warehouse management. Yet, out-of-stocks and inventory continue to grow as shipments have decreased (see Figure 1). The Grocery Manufacturers of America estimates that out-of-stocks are a \$6 billion problem annually. At the same time, retailers are dramatically reducing the amount of inventory they are willing to carry, pushing the inventory burden up stream to the manufacturer exacerbating out-of-stock and inventory growth issues. It is clear that suppliers and retailers must address the last mile of the retail chain. To do so, many organizations are now focusing renewed efforts on improving replenishment. The most innovative are tapping consumer demand signals to drive timely replenishment decisions.

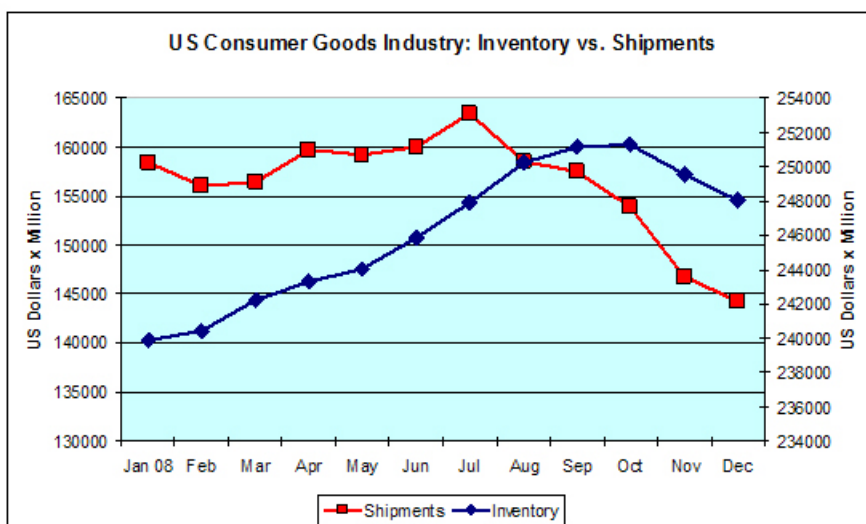


Figure 1 - US Census Bureau – manufacturing, mining and construction statistics

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

## **AMR Research defines DDSN as:**

“A system of technologies and processes that senses and reacts to real-time demand across a network of customers, suppliers, and employees”

*“DDSN: 21st Century Supply on Demand”, August 12, 2004*

## **Demand Driven Supply Networks (DDSN) To The Rescue**

Many are finding new hope for success through customer-centric, demand-driven business principles. Companies can no longer prosper by supply-based principles of “sell what you make,” with a pre-structured, one-size-fits-all approach. Customer-centric, demand-driven strategies require comprehensive fulfillment of the customer’s business value – as they define it. In order to handle rapidly changing requirements, companies need to connect all their suppliers, contract manufacturers, trading partners and customers into what *AMR Research* calls a “Demand Driven Supply Network (DDSN).”

A demand driven supply network has three very specific characteristics. It must be agile, flexible and collaborative in order to produce maximum value. Agility and flexibility allow a supply chain to rapidly respond to unexpected changes in demand in a highly predictable and flexible manner.

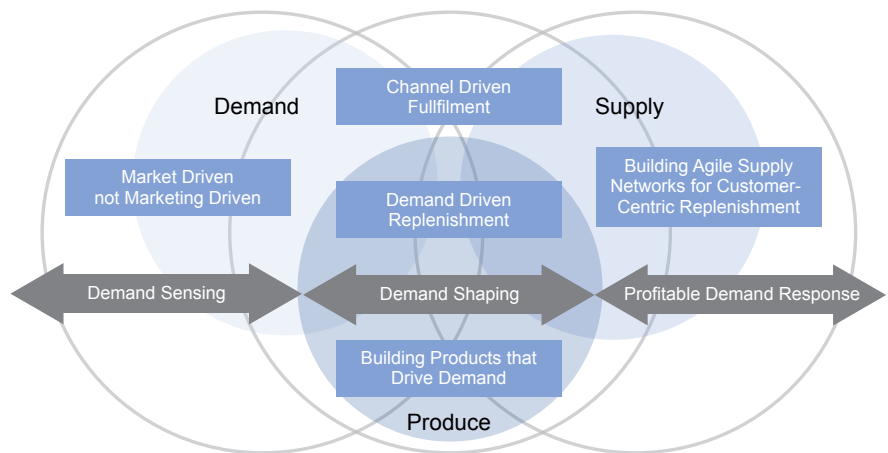
Demand driven replenishment moves organizations away from a dependence on forecasts based on retrospective data and enables them to become responsive to what is actually occurring, or predicted to occur, at the store. The increased availability of consumer demand data, in the form of retailer-provided point-of-sale (POS) enables many suppliers to understand, predict and respond to consumer demand for every store, every SKU, every day. In other words, these organizations can find and respond to forecast errors, shipment issues, store anomalies and POS system anomalies before they result in out-of-stocks, excesses and customer dissatisfaction.

Rather than a linear chain that is defined and constrained by fixed capacities, buildings and processes, DDSN looks more like a dynamic interaction between demand, development and delivery. **DDSN balances the pull from customers with a push from the supply chain.** It not only captures the immediate signals of demand, but also utilizes the most efficient and effective means to fulfill that demand. DDSN is the understanding, the planning, the response and the shaping of demand with transparent and synchronized processes (Figure 2):

- Understand – Capture the demand signals and predict future demand through applications and processes such as customer relationship management and demand management/forecasting.
- Plan – Develop internal and external infrastructure and resources to support demand through processes such as sales & operations planning, customer collaboration and supplier collaboration.
- Respond – Execute to customer demand through planning and collaboration processes for demand, inventory, replenishment and suppliers, and through lean manufacturing.
- Shape – Affect and throttle demand through proactive promotions planning, customer-centric product development and demand management.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence



**Figure 2** “The Handbook for Becoming Demand Driven”, AMR Research, July 2005

## An Introduction to DDSN

To help customers put the principles of pull-based supply chain management to work, QAD has applied its manufacturing-centric business and application expertise to develop a Demand Driven Supply Network (DDSN) business strategy. Through a combination of best-in-class manufacturing practices and QAD enabling technologies, manufacturing companies can transform their businesses from the traditional manufacturing focus to a customer-centric focus that drives new efficiencies throughout their businesses.

This executive report provides manufacturing companies with an analysis of DDSN concepts and discusses the critical success factors for companies seeking to implement Demand Driven Supply Networks.

## The QAD DDSN Solution

QAD’s DDSN solution framework of Understand, Plan, Respond and Shape roughly aligns with AMR’s steps for becoming demand driven. Companies best positioned to plot a safe course through these turbulent economic waters and weather the current “Perfect Storm” and those yet to form will develop strong supply chain capabilities that allow them to quickly adjust to changing conditions, realign to their customer’s priorities, and streamline operations to minimize cost and optimize customer service. DDSN provides the framework, processes and methods to meet these challenges.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

## Understand Your Consumers' Demands – Demand Sensing

Demand sensing is the amount of time it takes to capture the demand signals and predict future demand through applications and processes such as customer relationship management and demand management/forecasting.

### Statistical Forecast as Baseline

“Demand forecasting is the activity of estimating the quantity of a product or service that consumers will purchase. Demand forecasting involved both informal methods – such as educated guesses – and quantitative methods – such as the use of historical sales data or current data from test markets. Demand forecasting may be used in making pricing decisions, in assessing future capacity requirements, or in making decisions on whether to enter a new market.”[1] BNET Dictionary of Business

“The best forecasters have 15% less inventory, 17% stronger fulfillment and 35% shorter cash-to-cash cycle times.”

*AMR Research –  
‘Sales and Operations Planning: A  
Cornerstone of DDSN Leadership’*

A failure to accurately predict manufacturing demand can lead to bloated inventories, stock-outs and unnecessary supply chain cost. Demand planning and forecasting tools, combined with marketing intelligence, help improve inventory efficiencies, shorten lead times and reduce the effects of poor supply chain visibility.

Statistical forecasting applications use historical demand data to generate “best-fit” forecasts. Best-of-breed systems are intelligent and will learn from discrepancies, exceptions and forecast errors, as well as allow users to integrate marketing intelligence such as information regarding promotions, new product launches, seasonal trends and changing market conditions. An easy way to improve demand sensing is to increase the frequency of forecasting. A strong correlation exists between demand sensing and forecast frequency.

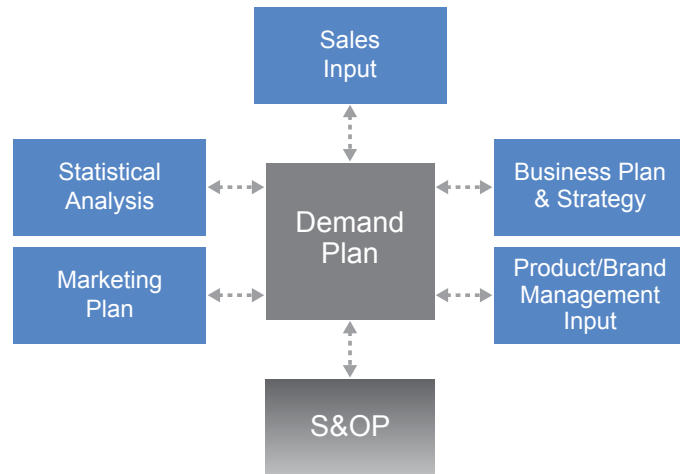
### Sales & Marketing Forecast Adjustments

Adjustments often in the form of management overrides should be made to the statistical baseline forecast to incorporate forward looking market information, especially in times of quickly changing market conditions. These adjustments could incorporate changes in demand due to customer, competitor, market, economic and government actions to name a few.

The inclusion of forward looking demand information provides a check and balance to the statistical based forecast and provides the guidance a demand planner needs to modify a forecast for products where historical demand patterns are not a good predictor of the future demand pattern. (See Figure 3) Basically any expected change in demand that cannot be attributed to cyclic, random, seasonal or trend need to be determined through forward looking methods and used to augment a statistical baseline forecast.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence



**Figure 3 - Typical Demand Management Components**

Customer Relationship Management (CRM) provides a 360-degree view of your customer, integrating customer information at every touch point. A sound CRM strategy enables your business to be efficient, productive and responsive to the demands of your customers allowing you to:

- Lower costs while attracting and retaining customers
- Generate greater customer loyalty
- Increase cross-sell and up-sell successes
- Improve sales forecasting
- Improve customer responsiveness with access to relevant and timely data

## Planning for Future Demand

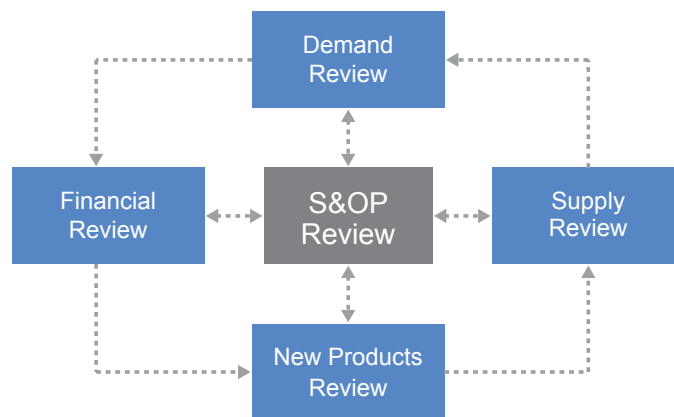
Successfully planning for future demand entails the development of internal and external infrastructure and resources to support demand through processes such as sales & operations planning, customer collaboration and supplier collaboration.

### Sales and Operations Planning (S&OP):

As companies focus on becoming demand driven, Sales and Operations Planning (S&OP) is becoming a Standard Operating Procedure (SOP). It is the translation of upstream demand data into an actionable operational plan. This collaborative process profitably aligns and synchronizes demand with supply against a defined business strategy. (See Figure 4)

---

## Fundamental Demand Driven Steps to Achieving Supply Chain Excellence



**Figure 4** - Typical Sales & Operations Planning Cycle

“S&OP, a cornerstone for DDSN leader change management efforts, offers the greatest financial impact when it is implemented with other DDSN best practices to improve channel and supply network transparency.”

*AMR Research – ‘Sales and Operations Planning: A Cornerstone of DDSN Leadership’ - July 2005*

Originally focused on matching supply and demand, sales and operations planning (S&OP) now facilitates organizational alignment between business goals and plans, while enabling quick responses to continuously changing business conditions. As organizations are driven more than ever by shareholder expectations, new-generation S&OP has a fresh focus: consistent profitability, where the operational plan reliably achieves the financial plan.

The new generation of S&OP processes and technology creates shorter cash-to-cash cycles and optimizes capital investments. Because revenue is continuously balanced to cost – and supply matched with demand – an organization consistently meets its financial objectives. This can be achieved because the processes, systems and communications are in place to create organizational efficiency and rapid decision making.

Organizations with strong S&OP processes supported by enabling solutions experience improved responsiveness because they have become forward looking and proactive. They’re able to maximize opportunities and minimize the impact of unforeseen events. A well managed process supported by workflow-enabled, exception-based technology leads to reduced planning cycle times and less information latency. Along with improved decision making, such companies gain a competitive advantage that keeps them at the forefront of their industries.

There is no doubt that S&OP is one of the keys to becoming demand driven. However to achieve significant business impact S&OP must be connected to other DDSN initiatives to improve visibility to demand and a company’s ability to synchronize up and downstream supply chain actions.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

## **Customer Collaboration**

Collaboration means that multiple enterprises within the supply chain are networked together and work collectively to their mutual benefit, making the supply chain more efficient, responsive and productive. This requires constant, global, real-time visibility into demand and supply for all the participants in the network. In order to leverage a supply chain for competitive advantage, a company must be able to respond quickly and transparently to unforeseen events. This includes a fast and flexible reaction to changes in supply or demand, events requiring exception management or any other unpredictable supply chain event.

As retailers make more and more consumer demand data available to their suppliers, their expectations of what suppliers will do with this data increases. Larger retailers provide their suppliers with daily POS and inventory data at a store/SKU level of granularity. As more retailers and suppliers adopt RFID, the volume and granularity of consumer demand information only increases. The most innovative suppliers will use this valuable insight into real-time consumer demand to drive effective and profitable replenishment decisions. The most value is derived from this data, however, when it is used at the granularity with which it is provided to the supplier.

Customer collaboration allows manufacturers to gather valuable information at each point of interaction. By using their enhanced knowledge of consumer behavior manufacturers can translate demand insights into an effective response. When done well, partners can realize a significant reduction in time to market for new products, 10 to 50 percent reduction in out of stocks and a one to five percent improvement in margins. Delivering this value requires the supplier relationship to be redefined from a buy-produce to a joint-value creation partnership. Joint-value creation enables reductions in inventory carrying costs, flexibility to support flow-through distribution and, most importantly, the ability to proactively address supply chain problems before they affect the consumer at store level.

Web-based systems are a key technology enabler for customer collaboration. Web-based systems enable Collaborative Planning, Forecasting and Replenishment (CPFR) streamlining the flow of bi-directional demand and supply communication between retailers and their supplying manufacturers.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

## **Supplier Collaboration**

Supplier relationships have always been a critical component of business success. But in an increasingly competitive and fast-paced world, the role of the supplier is becoming even more important. Today the world's most successful companies see their suppliers not as adversaries who must be bargained with, threatened or cajoled, but as powerful resources that can be leveraged to move products to market faster, slash supply chain costs and significantly enhance customer-service levels.

The principle of supplier collaboration is based on gaining visibility and control not within a single company, but across an enterprise and its key suppliers. But only the most sophisticated companies have taken the idea of supplier collaboration a step further by using innovative new technology tools to extend their supply chains back into their vendors' operations, ensuring real-time visibility and agility across both businesses and eliminating the element of surprise. Through Web-based interfaces, an organization can execute all of its supplier-related processes and workflows in real time. By linking their supply chain technology solutions to the information systems of key suppliers, manufacturers can react quickly to demand changes collaboratively managing such critical activities as procurement, replenishment, material and event management. In return, suppliers can give advance notice of product shortfalls, delivery delays and other performance issues.

Because trading partners share visibility, control and accountability for their cooperative activities, trust and dependability are increased and surprises are all but eliminated, since everyone shares the same information and agenda. Purchase orders are more accurate, inventory levels can be minimized, service levels and delivery performance improve dramatically and, when the unexpected does occur, the entire supply chain can react with greater responsiveness and agility.

While the specific results of supplier collaboration will vary, based on the unique business model, competitive environment and supply network of each company, nearly any organization can realize bottom-line results from such an initiative. Companies that have implemented supplier collaboration initiatives consistently refer to three high-impact benefits for their organizations – increased visibility and responsiveness, optimal inventory levels and improved customer service – all of which have an obvious impact on revenues and profitability. Other important financial benefits include lower logistics expenses and a reduced total cost of supply chain ownership.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

Supplier collaboration also has tremendous productivity and efficiency benefits, streamlining and even automating the traditionally paper and time intensive activities associated with procurement and delivery, including purchase orders, invoices and receipts. Faxes, e-mails, conference calls and express packages across large physical distances and multiple time zones can be virtually eliminated, replaced with a user-friendly, online interface that can be customized to the unique demands of every supplier relationship.

And, in an increasingly globalized business world, Web-based supplier collaboration has other obvious productivity benefits. Not only do shared technology systems and data help to overcome cultural differences and disparate business processes, but they also ensure that the supply chain is productive around the clock. No matter what country or time zone key vendors are in, real-time information sharing ensures that there are no delays in response. Key participants in the supply chain can react to changes on the fly, no matter what part of the world they are in—or what time it is there.

## **Responding to Your Demand**

Efficiently and effectively responding to your customers' demands requires robust and flexible customer-centric replenishment and lean manufacturing capabilities.

### **Customer-Centric Replenishment**

Replenishment will always remain a critical area of focus for manufacturers, for the simple reason that they can't sell products that aren't on the shelf. The replenishment area addresses the last mile in the retail value chain. Taking a demand-driven approach ensures that supply and demand align as closely as possible, compensating for forecasts that are often incorrect without incurring excess inventory.

The replenishment area faces challenges that require a unique solution. Replenishment professionals must keep their retailers' shelves stocked, without the luxury of the inventory levels they were once able to maintain. Replenishment teams, therefore, must have access to timely information coupled with the ability to quickly and appropriately respond to constant changes in consumer demand.

---

## Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

It is nearly impossible to effectively manage the volume of data now available using manual processes. Sales analysis and reporting tools were simply not designed to provide the capabilities replenishment teams require. Dedicated replenishment solutions, on the other hand, are built to deliver relevant information and guide timely action. They automate the rapid analysis of large volumes of demand data, for the purpose of identifying and presenting only the specific issues that will impact replenishment. Replenishment solutions including Replenishment Planning (RP), Distribution Resource Planning (DRP), Inventory Planning and Optimization (IP&O) and Distributed Order Management (DOM) will guide users, step-by-step, through the most optimal response to replenishment issues, based on the current business conditions and the organization's best practices. Users quickly understand the situation and can then respond directly from the system, collaborating with team members and their retailers as necessary. With the advancement of key technologies and business concepts, now is the time to start to re-engineer the current replenishment process.

Vendor Managed Inventory (VMI) Systems take consumer-centric replenishment to the next level by enabling manufacturers to capture and analyze POS scanner data from their retail partners and then create replenishment orders to distribution center or store level demand.

By implementing consumer-driven replenishment, manufacturers can reap significant bottom-line benefits through reduced inventories and improved utilization of their assets and investment dollars. In addition to these financial benefits, early adopters will also gain customer loyalty because they will provide products at lower costs, while drastically reducing out-of-stocks. Customers will be more satisfied because they will be able to purchase the products they want, when they want them.

### **Customer-Centric Production – Lean Manufacturing**

APICS, The Association for Operations Management, defines Lean Manufacturing as “a philosophy of production that emphasizes the minimization of the amount of all the resources (including time) used in the various activities of the enterprise.” Lean involves identifying and eliminating non-value-adding activities and contains a set of principles and practices to reduce cost through the relentless removal of waste.

Lean Manufacturing is a business strategy for organizing and managing product development, operations, suppliers and customer relations. It requires less human effort, space, capital and time to make products with fewer defects to precise customer desires, compared to previous strategy of mass production. Lean Manufacturing principles aim at simplifying all manufacturing and support processes.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

Lean Manufacturing enables the implementation of a streamlined manufacturing approach by enabling a pull replenishment, buffer management and continued process improvement resulting in a more efficient organization with higher quality and improved customer satisfaction. Typical improvements obtained through the adoption of lean manufacturing principles include:

- Inventory Reduction of 30% - 50%
- Cycle time reduction up to 30%
- Cycle time reduction up to 30%
- Cycle time reduction up to 30%
- Administration burden reduced by 40% – 70%
- Demand accuracy improved by 50% - 70%
- Data integrity improved up to 99%
- Working capital, inventory turns, floor space and quality improvements

To support Lean Manufacturing, software tools have been developed that assist in the identification and steady elimination of waste to improve product quality, production time and costs.

Lean Manufacturing solutions provide tools that support creating maximum flow as well as pull to customer demand. Advanced Lean Manufacturing solutions usually include both Kanban and flow scheduling capabilities. Lean Manufacturing systems should provide complete functionality to map an extended value-stream, to establish and execute kanban processes, both inside the manufacturing plant and with suppliers, and to implement effective pull systems by giving users the ability to tightly manage inventory throughout the value-stream. Flow scheduling capabilities offer the ability to decrease inventory, lot sizes and cumulative product lead times, reduce non-value activities and increase customer satisfaction levels.

## Shaping Your Demand Response

Demand shaping is a series of focused activities to drive and improve revenue. These include, but are not limited to customer-centric trade and promotions management, and product development.

### Customer-Centric Product Development

**DDSN is about fulfilling true customer demand with a system that responds quickly when demand changes.** A customer-centric product development strategy aligns Product Lifecycle Management (PLM) strategies to support DDSN while streamlining the design process to ensure designs will ramp to volume. Demand-driven manufacturers proactively manage their product lifecycles introducing new products that add to not substitute from sales of existing items.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

Manufacturers rely on new product introduction as a main source of new profits and growth. As product lifecycles shorten and global competition marginalizes existing products, customer-centric product development becomes even more critical. A Demand Driven Supply Network requires a product management strategy that quickly adapts to changing customer needs.

Although the value obtained from a customer-centric product development strategy depends on each company's specific operating and business conditions, typically improvements are seen in three areas: revenue, product costs and development costs. Aligning product development efforts to customer demand and enabling these efforts with a Product Lifecycle Management (PLM) system can lead to revenue gains as high as 20 percent, reduced product costs of up to 15 percent and reduced product development costs of up to 15 percent.

Manufacturing companies face obstacles while trying to manage product content and development processes. A company's success relies on having efficient business processes and effective development of complex information assets including product designs, service documentation and regulatory submissions. Product Lifecycle Management software enables companies to streamline product development processes and deliver superior physical goods and information products. Product Lifecycle Management software allows manufacturers to have a:

1. Single source of product information/content to enable development efficiencies and reduce errors and rework.
2. Complete product definition and collaboration capabilities to drive cross-enterprise understanding of information - regardless of source.
3. Repeatable, end-to-end process to speed time-to-market and reduce development cost.
4. Secure, industry-standard Internet architecture to deliver a safe, high-performing technology platform.

### **Customer-Centric Trade and Promotions Management**

The average consumer products company in 2008 spent 15 to 30 percent of revenue on trade promotions with only 54 percent of these promotions being evaluated to determine revenue and profit performance. Most companies don't have a great understanding of the volume increases associated with a promotion not to mention margin impacts. However, most manufacturers must differentiate their products via promotions to sell products and drive brand loyalty. Competition for retail floor/shelf space is intense making it extremely difficult for new or small manufacturers to compete with global manufacturers.

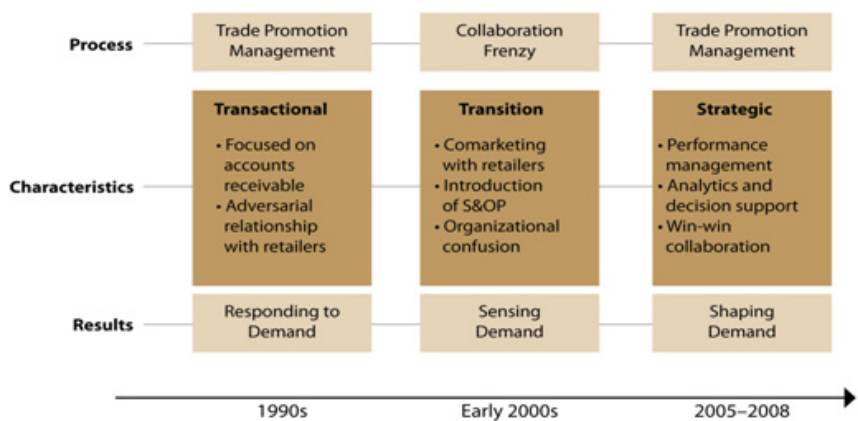
# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

Their trade spending can provide the competitive edge and must provide the maximum exposure, and is vital to gaining product distribution, placement, pricing and promotion at their customer's store.

Customers want quick and accurate resolution of claims and deductions related to product promotions. To keep promotion costs in line, it is critical to closely manage the promotion process and costs. Trade Promotions are typically the second largest cost (behind Cost of Goods Sold), therefore planning and control of Trade Promotions is critical.

Unfortunately Sarbanes-Oxley has mandated greater reporting and tracking requirements for businesses, and has made promotion spending a highly visible expenditure versus an overhead cost requiring tighter controls. It's essential that these costs are accurately and properly recorded, and documented, which has caused Trade Management processes to be more labor and time consuming.

Trade and Promotion Management (TPM) has evolved as a business process from tactical settlement and tracking of funds to more strategic demand shaping. Figure 5 -- from the *AMR Research* article titled, "Trade Promotions Management, Take Two", November 3, 2006 – shows the evolution of the role of promotions within the context of the Demand Driven Supply Network (DDSN) and its migration as a business process.



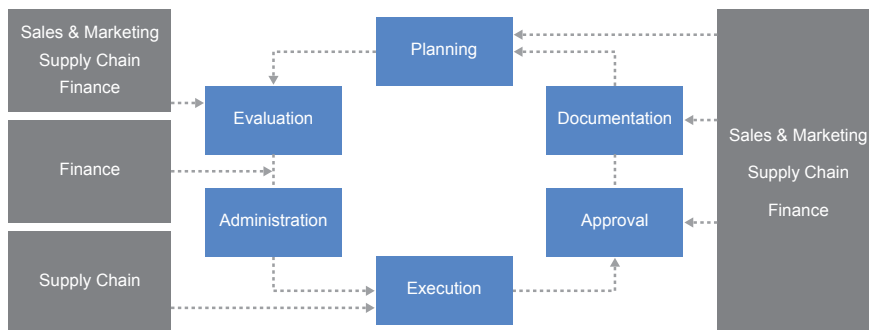
Source: AMR Research, 2006

Figure 5

---

## Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

A typical TPM starts with promotional planning in marketing and operations and then moves to execution within sales and finance. However, in customer-driven organizations, TPM begins with demand-planning activities to predict promotional lift and ends with promotion financial analysis to understand actual lift and margin results. What is learned from past promotions is fed into the loop to continue to adjust and fine tune trade and promotion spending forming a “Closed-Loop” TPM process. (See Figure 6) In customer-centric organizations TPM is an input to the Sales & Operations planning cycle. TPM then becomes a strategic lever for not just managing funds, but proactively and intelligently shaping demand.



**Figure 6 - Closed Loop TPM Process**

Well-managed promotional programs lead to high in stock availability, properly allocated inventory, efficient and effective new product introduction, and customer satisfaction. How frustrating is it for you to make a trip to a store for an item on promotion only to find out that item is out of stock?

TPM enables manufacturers to significantly reduce deductions, reduce accrual balances and improve repayment of unearned cash discounts. TPM can also reduce days-sales outstanding by reducing billing errors.

TPM systems make the resolution of claims and deductions quicker and more accurate reducing invalid claim deduction payments leading to greater customer satisfaction and increased profitability. TPM also reduces time and resources in AP & AR allowing resources to spend time on other value add activities. TPM systems improve visibility of promotional spend allowing manufacturers to analyze profitability by customer and product and determine effectiveness of each promotional program. By facilitating the comparison of volume sold and financial results, TPM systems help to identify problem promotions allowing manufacturers to make the decision to modify a program to cut losses. Due to these huge potential savings the average payback period on TPM solutions is less than 12 months.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

## **The Value of DDSN**

DDSN optimizes profitability and capital utilization, while achieving maximum customer satisfaction. Simply put, a demand-driven approach to replenishment will dramatically reduce out-of-stocks while driving excess inventory out of the supply chain, both of which lead to superior customer satisfaction. It is not unusual to increase revenue by up to 10 percent through DDSN strategies that shape demand and deploy optimized delivery processes, while satisfying the customers' requirements.

Cost reductions through DDSN strategies that understand, plan and respond to demand have been realized as follows:

- Reduced inventory by 15-35%
- Reduced cash-to-cash cycles by up to 30%
- Improved capital equipment utilization by 20-40%
- Material spend reduction 2-10%
- Productivity gains by 20-50%
- Penalty reductions by 50-95%
- Transportation reductions by 5-15%
- Gross margin improvement by 3 to 8 points
- Gross margin improvement by 3 to 8 points

According to the CIO.com article "Restructuring the Supply Chain" August 1, 2005 the results can be astounding:

- An improvement of 10 percentage points in a perfect-order rating correlates with 50 cents better earnings per share.
- A gain of 5 percentage points in the perfect-order rating correlates with 2.5 percent better return on assets.
- An increase of 3 percentage points in perfect-order performance correlates with 1 percent additional profit margins.

---

# Fundamental Demand Driven Steps to Achieving Supply Chain Excellence

## Conclusion: Evolution not Revolution

Global companies are struggling to understand and mitigate risks across their extended supply chains in arguably some of the worst economic conditions of modern times. Their goal is to fulfill increasingly shrinking demand profitably during this downturn cycle and be well positioned for the next growth cycle. According to the *AMR Research* article, "Managing the Biggest Supply Chain Risk of All: Constant Change," December 3, 2008, *AMR Research's* most recent customer survey points to commodity, energy and fuel costs as the top risks that global companies face today. The authors of this article, identify mitigation strategies focused on stronger relationships with trading partners and better visibility across the organization and the extended supply chain as the most successful. Obviously a demand driven supply network business strategy is more important than ever. However in today's recessionary business environment a multi-phase evolution to demand-driven capabilities is recommended to minimize the already substantial risk faced by manufacturing companies today.

## QAD Can Help

Three actions QAD recommends you take today:

1. Engage QAD to help develop a business case for the evolution to DDSN strategies. QAD has the expertise and solutions to help you through every phase of developing a demand driven supply network.
2. Define and pilot comprehensive Demand Management and Sales and Operations Planning (S&OP) processes to provide the foundation for successful systemization.
3. Investigate options for customer and supplier collaboration. What data is available from your customers? How could you utilize this information to better understand your end consumer demand? How could you share this understanding of demand with your suppliers to streamline the entire supply chain?



QAD Inc.  
100 Innovation Place  
Santa Barbara  
California 93108  
USA  
[www.qad.com](http://www.qad.com)

Copyright © 2009 QAD Inc. All rights reserved.  
#73-3101

QAD is a trademark of QAD Inc. All other products and company names are used for identification purposes only and maybe trademarks of their respective owners.