How enabling Supply Chain visibility can improve the bottom line

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Where does it normally go wrong?

Supply Chain executives are under pressure to eliminate disruptions. However, it can seem that, as one area of the supply chain improves, another causes problems. This becomes more obvious as the current economy takes hold, creating increased complexity as the supply chain re-aligns to accommodate changes in suppliers, partners and cash flows. The real issue is putting the best practice and process improvements in place to help ensure that when problems occur, you can respond quickly to contain costs and reduce customer impact.

The current economic situation means companies are running very lean – drawing down inventories and being careful not to produce ahead of demand. There is also concern over the stability of tier 2 suppliers, the geographical realignment of supply chains, and the need to cope with "black holes" in visibility for in-transit shipments and third-party inventory locations.

A recent IBM survey (New Rules for a New Decade) was filled out by 664 supply chain management executives in 29 countries around the world, who all identified visibility as among the top organizational challenges they will face in coming years.

"As the number of supply chain partners increase, the need for accurate, time-sensitive information becomes more acute."

— "New Rules for a New Decade", 2010

Virtually any supply chain inefficiency impacts the bottom line. Linking the operational benefits to the financial supply chain can help ensure that, overall, the organization reduces cost.

- Retailers average 7 weeks of inventory
- CPG companies average 11 weeks of inventory
- Out-of-stocks can be as high as 9 percent
- Obsolescence as much as $9 billion globally

There are multiple drivers for improving visibility. As supply chains become leaner with reduced amounts of inventory, this still means that when disruptions occur, they can have a greater impact, and can result in lost sales.

"At a time when the free flow of information is readily available to most of the world through the Internet, supply chain managers still struggle with getting accurate and timely information to run their global operations."

— "Smarter Commerce is redefining Value Chain Visibility," 2011

Issues related to visibility in the supply chain

- Goods not available or in the wrong location
- Transportation and supply issues
- Inability to leverage the global inventory network
- Lack of visibility of orders, shipments and inventory
- Reduced visibility of transactions

When combined with extended global supply chains, flexibility and agility are crucial for business success and, just as importantly, competitive advantage.

Global supply chain visibility helps ensure:

- Visibility of global inventory
- End-to-end supply chain transaction visibility
- Trading partner community activity visibility and control

The global supply chain can be viewed in three segments: the export country, the import country, and the journey between countries. In each of these segments, there are several stages where things can go wrong. While there are varied stakeholders with varied priorities, in a global organization the business objectives are aligned, as virtually any solution geared toward visibility should be.

Where to start?

There are essentially six criteria that can create successful supply chains:

- Collaboration
- Optimization and reactivity
- Connectivity
- Execution and flexibility
- Speed
- Visibility and measurement

When focusing on improving visibility, you can leverage the following areas to drive improvements across the above criteria:

- Linking supply and demand
- Channel visibility
- Supplier visibility and communication

Linking supply and demand

The important first step to comprehensive visibility is to link supply and demand via a series of dynamic processes and collaborations to drive improvements and efficiencies.

Matching demand with supply sounds straightforward, yet the truth is rarely as simple. The good news is that implementing best practices and supporting process improvements means that you can begin to leverage the global inventory network to respond flexibly and:

- Link multiple ERPs across multiple instances and geographies
- Create a collaborative trading network linking suppliers, logistics service providers (LSPs) and customers real time
- Enable inventory diversion strategies – even across third party ownership

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"What business managers and executives are primarily concerned with is the ability to be flexible, react to changes in the market, and create visibility across the supply chain. IBM gets the mix just right between strategy and technology through their promise of the Visible Business."

— Fulfillment Technology Manager, Optical Microscope Manufacturer

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Visibility into real time information about where your inventory is, compared to where you expect it to be, can mean the difference between successfully breaking into a market segment and failing spectacularly.

Improving channel visibility

Employing process improvements that enable you to track inventory while it is under the control of your channel partners can eliminate the typical "black holes" that can occur in a locally optimized network. This can mean you can implement the following changes.

Become more responsive to demand fluctuations – Monitoring stock levels within a channel partner provides essential data around demand fluctuations and trends which can be used to drive production efficiencies and increase proactive sales contact with the channel.

Improve relationships with channel partners – Becoming a critical supplier can improve overall competitiveness and profitability for both parties – even more critical in global relationships where local knowledge is key. This can also be extremely effective in a parallel selling strategy scenario where a particular product is in high demand for a limited period (an acceptable process in high tech, clothing, toys, automobiles, and other market sectors) where the manufacturer can allow partners to trade unsold inventories.

Strategically allocate inventory to where it's needed in the network – Having a view of inventory inclusive of multiple locations, owners and statuses across multiple sourcing locations and channel partners enables manufacturers to juggle fulfillment to save production costs. Perfect stock unused in one channel or location can be diverted to meet fulfillment requests from other channels or locations, even when balancing inventory across multiple geographies or business divisions. This has the added benefit of reduced lead times and increased responsiveness. Higher satisfaction levels and improved relationships with clients have historically been shown to lead to reduced return rates and increased sales revenues.

Gain early visibility of sale or return stock and act accordingly – A typical scenario around sale or return agreements is lack of early warning of returned stock which can increase the inventory levels of manufacturers quite significantly and unpredictably. It has the additional, somewhat less measurable, impact of increasing production costs as manufacturers fulfill orders by producing new inventory, when another channel may have excess stock they are planning to return. Some industry leaders are taking this one step further, particularly in high value market segments such as automotive, where they refurbish returned items in a twist on the traditional postponement strategies, tailoring them to fulfill new orders from other channels or trading partners.

"IBM® Sterling Supply Chain Visibility gives us complete visibility of our inventory. That means we know exactly where our product is at any given time in the supply chain, which allows us to make critical shipping decisions to ensure on-time deliveries."

— Manager of Winter Production, Agricultural Biotechnology Company

Supplier and LSP visibility and communication

Extending visibility to the often complex fulfillment aspect of virtually any supply chain is a challenge. Understanding the relationships of what can amount to thousands of suppliers with differing process models, relationships and technology levels can look insurmountable – and that's before you even think about process and technology integration across multiple systems and architectures.

Despite this, however, many industry leaders are investing significant time and resources into extending visibility globally. For many complex manufacturers to remain competitive, virtually all elements need to have a global approach, including visibility improvements.

Improving communications through order visibility between manufacturing demands and the fulfillment side can enable the following projected benefits.

Real time availability over a global network – As orders are placed to suppliers, a manufacturer typically no longer can retain a linked view. Linking the original order (the demand) to the purchase order (supply) can allow the supplier to share stock allocations and availability, and enable the manufacturer to be more responsive, and perhaps re-distribute fulfillment in the event of availability issues.

Coordinated single orders across multiple suppliers – Linking orders across a global supply chain can, in turn, unlock other cost savings and efficiencies for the manufacturer. Beginning with the original sales order for a complex item which can be communicated from the distributor down to the manufacturer, the manufacturer then breaks the order down into its related components, which may then be fulfilled from multiple suppliers in multiple geographies. With a global visibility system in place, the manufacturer can consistently monitor the progress of these component orders, independent of the fulfillment route, in relation to the original order. This means scheduling and production can be carefully timed and exceptions can be responded to in a measured way, with reduced impact or delay on the original order.

Responsiveness through diversion – As industry observers know, supply chains are run by exception. In addition to the usual factors driving change within a distribution network, such as floods taking facilities offline or demand fluctuations, the current economic climate is seeing companies going out of business or being acquired. This requires your fulfillment network to be able to divert order fulfillment to new facilities, geographies and trading partners as needed, without the need for completely re-writing your order management systems and processes. As some glitches may also be only temporary, the requirement to get partners back in the network requires a fair degree of flexibility and responsiveness.

"The IBM solution helps us streamline our supply chain with our suppliers while continuing to meet the requirements of our customers."

— General Manager, Information Systems, Irish Dairy Board

Coping with single source products in a global distribution network – The headaches of single source products (common in the pharmaceutical industry) and distributing fulfillment efficiently can be solved by understanding how the inventory is distributed across the network – by country, business unit and trading partner. This can make it simpler and more cost-effective to fulfill orders from existing supplies in a neighboring region or facility, as opposed to ordering more from a single source. As single-source products tend to be expensive, this can represent significant cost-savings and process efficiencies.

"The IBM solution meets all of our customers' data exchange needs, even from the largest and most demanding companies. Not only are we onboarding customers more efficiently and cost-effectively, IBM® Sterling B2B Integrator has opened up new revenue opportunities for Intereuropa as we are now able to acquire new customers with whom we were previously unable to exchange data."

— Service Support Department Manager, Logistical Services Company

So what have we learned?

Achieving true global visibility has far-reaching benefits that should readily outweigh concerns about tackling such a project. Even in the leanest of supply chains, there are significant opportunities to unlock cost via a strategic, global visibility approach.

Step 1 – Enable the network

Creating a comprehensive trading network where customers, distributors and suppliers exist in complete cohesion is critical to a visibility strategy. Enabling real time exchange of information is the first step to complete visibility.

Step 2 – Link supply and demand

Viewing the supply chain holistically, removing silos and "black holes" of information means you can retain the linkage between supply and demand until the goods reach the customer. This can enable inventory diversions, third-party inventory ownership and proactive issue resolution to improve service and reduce inventory levels.

Step 3 – Leverage channels and suppliers

Adapting to best practices in the supply chain means you can explore innovative ways to unlock cost and increase responsiveness and agility. Extending fulfillment to unsold inventory and refurbishing last season's stock to reduce production levels are just two of the ways manufacturers can control costs.

Step 4 – Measure and adapt

Increasing flexibility and visibility in the supply chain can make it possible to effectively reduce inventory stocks without impacting availability. The ability to leverage supplier-owned stock and link inventory in different geographical locations can lead to significant cost reductions around inventory holdings.

Having an effective dynamic business network of partners, suppliers and vendors also helps ensure that the financial supply chain stays agile and increases responsiveness to invoice changes. It also can make for faster quotes and the ability to accept orders electronically, which can lead to strong gains for manufacturers.

Virtually all of these strategies and best practices build on existing efforts to control costs and increase revenue. You can leverage the leanest of supply chains, and lay global visibility across existing technology and process investments for great benefit to your bottom line.

IBM Corporation
Software Group
Route 100
Somers, NY 10589
USA

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