

The Chain Effect

In their quest for improvement, companies are increasingly investing in process optimization tools and systems

Supply chain, today, are as dynamic as the business environment governing them. Additionally, there is an increasing pressure to bring about efficiencies through the whole value chain. Can RFID be the answer?

In today's dynamic world, companies in their quest for improvement are investing in tools and systems that optimize their processes, and have made significant progress by employing various technologies for increasing efficiencies and reducing costs.

The intense competitive landscape makes it imperative for businesses to continuously evolve with an emphasis on optimizing at all levels of the value chain. Supply chain management (SCM) is integrating the entire chain right from suppliers to manufacturers, 3PLs, distributors, wholesalers/ sub distributors, retailers and finally to the end consumers, and emphasizes the need for collaboration between all entities to optimize the whole system.

The basic aim of any SCM function is to make the organization more agile and nimble footed to respond to continuously changing consumer preferences

The basic aim of any SCM function is to make the organization more agile and nimble footed to respond to continuously changing consumer preferences by capturing the data of material flow at all levels of the value chain.

SCM Overview

Global researches have time and again concluded that today's supply chains are far from delivering their objective. Some of the reasons that have been attributed are:

What is needed is an effective solution for end-to-end visibility that ensures the right amount of goods at the right place and in the most cost effective manner. There is an urgent need for businesses to "sense and respond" which requires every part of the enterprise to be integrated with the IT infrastructure, and this has to include the physical assets but most importantly enable item-level tracking.

Trends

The supply chain has evolved significantly over the past few decades and today it seems poised for yet another transformation driven primarily by technology and globalization. This technology change will involve a medium to enable fast, open standards for the transmission of information and the development of agents for Intelligent Products.

Areas of Concern

- **Data transparency across the SCM chain:** Data available from different stakeholders should be clear and easy to understand and able to recognize different business patterns clearly. Overall, data transparency can be enabled by EPC Info Exchange and other protocols, adoption of GTIN and other standards, in transit visibility during collection and distribution, pallet/ case/ item level tracking and through seamless

Impact on Key SCM Entities

Manufacturers

- Manufacturers get Real-Time information on the customer needs and become more responsive to them.
- Reduced raw material inventory
- Accurate production planning schedules
- Enables faster and more accurate recalls as and when necessary

3PLs

- RFID enables better coordination between 3PL's and retailers/ regional warehouses by improving data sharing
- Pallet/ Case/ Item level tracking to know the exact location of a particular item in the chain for better control and visibility
- Real-Time information to help reduce out of stocks

Distributors

- Distributors are enabled to supply products, Just In Time
- Can balance their inventory accurately to have enhanced ROI

Retailers

- Become more efficient due to better inventory management, store visibility, reduced thefts and frauds, manpower management and streamlined financial systems
- Become more agile by advanced forecasting mechanisms and collaboration with all the entities



information exchange between various stakeholders.

- **Real time information across the SCM chain:** Systems should be able to track and use new information immediately after an event (real-time) and influence the decisions of the concerned people. An efficient supply chain is nimble and responsive to shifts in demand or constraints.

- **Extension of value of information/data generated:** The real value of the immense data generated throughout the supply chain can be realized by the sharing of information between various entities to improve overall efficiency.

- **Collaboration of relevant data between stakeholders:** Sharing of forecasts and related business information among business partners enable high product availability. Collaboration results in better cross docking, less product returns, reduction in reverse logistics, B2B integration and providing manufacturers / vendors with valuable customer information for use in fine-tuning their marketing efforts.

- **Inventory and replenishment:** With proper inventory planning, potential stock-outs can be detected and replenishment requested before the inventory drops to critical levels. It encompasses the following components: efficiency in key business ratios, out of stocks, inventory obsolescence / shrink, automatic inventory counts, demand planning to reduce unsaleables and out-of-stocks, and inventory rotation.

- **Flexibility to dynamically adapt to new business rules:** An enterprise whose business processes are integrated end-to-end across the company and with key partners, can rapidly adapt to changing market conditions, and changing market needs and fluctuations.

- **Financial Efficiency:** Financial efficiency when enabled can ensure accurate billings, efficient utilization

Benefits of SCM

Real time Information

Building an accurate, up-to-date inventory picture thereby maximizing visibility is vital to supply chain planning. RFID enables systems to track and use new information immediately after an event (real time) and influence the decisions of the concerned people. The key success factors after using RFID are single point web enabled data access, multi stores visibility, monitor perishable goods.

Inventory and replenishment

Some of the key success factors after using RFID include maintaining a real-time view of inventory as it flows through the supply chain, tracking of discrete movement of inventory, triggering of alerts around inventory movement based on pre-defined/customized business rules and allowing just-in-time practices.

Maximizing warehouse space

With high costs associated with the storage real estate, the goal is to maximize warehouse space. This will improve utilization without undermining the ease with which goods can be moved in and out.

Minimizing goods shrinkage

Theft combined with imprecise inventory management can create a significant shortfall in actual versus expected goods available. Within the supply chain environment, goods shrinkage is widely perceived to account for up to one per cent of stock, affecting a significant dent in profits.

In terms of benefits to consumers, RFID can go beyond just intangible cost savings, as it can play a role in food safety, counterfeit control, and warranty programs.

of human resources, paperless audit trails, financial reporting accuracy across the chain, lean operations and increased invoice accuracy across the chain. On the other hand, the impact areas for security include theft prevention, tracking of individual items, access control and data encryption.

Adieu Supply Blues

Imagine a fully responsive SCM network. Imagine a warehouse where perishables don't perish, where theft is fully detectable and prevented where your systems exactly match

In terms of benefits to consumers, RFID can go beyond just intangible cost savings. It can play a role in food safety, counterfeit control, and warranty programs

physical inventory counts, and where transactions with trading partners are automated and precise.

Imagine product visibility, transparency and a supply chain built on real-time demand and supply information – imagine the impact on your inventory and working capital.

Recollect the impact of the bar code some 25 years ago, and now, imagine the impact of latest RFID technologies today.

RFID represents a truly transformational technology that provides the ability to revolutionize the face of the supply chain, retail operations and consumer-centric processes. It has the potential to drive enormous shareholder return benefits across numerous key metrics including revenue growth, operating margin, working capital and capital expenditures.

Just imagine the possibilities ...

—Homi Limbuwala The author is VP, business development, SkandSoft Technologies