

E- Supply Chain Management: Potentialities and Prospects in Indian Manufacturing Industries

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ABSTRACT

Most companies designed their supply chains in more stable times, and these designs have now become obsolete. When demand spikes up, companies often suffer from material shortages and poor customer service. When the market suddenly lurches from boom to bust, many companies are caught with excess inventory. Product proliferation can also lead to inventory imbalances. The business can use the Internet to gain global visibility across their extended network of trading partners and help them respond quickly to changing business conditions, such as customer demand and resource availability.

Key words: Electronic Data interchange, Transportation, Warehouse management software

Introduction

Electronic Supply Chain Management (e-SCM) is an optimization of business processes and business value in every corner of the extended enterprise - right from your supplier's supplier to your customer's customer. It uses e-business concepts and Web-technology to manage beyond the enterprise, both upstream and downstream. This strategic approach unites all the steps in the business cycle, from initial product design and procurement of raw materials, through shipping, distribution, and warehousing right up to the point when the finished product is delivered to the customer.

In a competitive and knowledge driven economy, companies need to reduce their cost of goods sold and increase inventory turns to keep cash flowing – but market uncertainty complexities have made this challenging. In a traditional company which does not employ E-Commerce 17% to 50% of the price of its products is got from the cost of just moving the products from their manufacturing plant to shop shelves. This includes the margin of the retailer and of the distributors. Most of the cost is attributed to logistics and holding inventory. An

efficient E-SCM can bring down the prices of products by as high as 40% and it does so by eliminating overstocking by reducing the average inventory levels to what is needed and by so doing lowering warehousing costs and transport costs since there won't be any unnecessary trips when every stage of the supply chain is in synch with each other. Companies are now looking at how to increase their supply chain's flexibility while searching for greater efficiency and lower costs. Supply chains are now customer focused and aim to deliver products efficiently when, where and how customers want to receive them.

Factors requiring more robust supply chains than most companies have:-

1. Globalization makes the supply, demand, and distribution for each stock-keeping unit product line and region far more varied and challenging to manage.
2. Increased reliance on outsourcing means companies have lost some control and visibility over supply and logistics, and in some cases even design and sourcing.
3. Internal production is less predictable, since product specifications and mix are constantly changing.
4. Logistics disruptions based on carrier issues, war or its threat, terrorist attacks, and labor strikes have become almost commonplace.
5. Product proliferation makes the demand for each stock-keeping unit more difficult to predict and makes supply and distribution more complex.
6. The speed of economic upturns and downturns in the past few years creates demand volatility as well as fiscal pressure for efficiency.

Internet-enabled supply chain helping companies in various areas

Technologies such as the Internet, electronic data interchange, transportation and warehouse management software, including software that manages plant scheduling, demand forecasting, procurement, make SCM a versatile strategy to adopt.

1. Avoid costly disasters
2. Reduce administrative overhead
3. Reduce unnecessary inventory (thereby increasing working capital)
4. Decrease the number of hands that touch goods on their way to the end customer
5. Eliminate obsolete business processes
6. Reap cost-cutting and revenue-producing benefits
7. Speed up production and responsiveness to consumers

8. Garner higher profit margins on finished goods

E-Supply Chain Management (e-SCM) tools to support customers in

1. E- Forecasting
2. WIP Report online access to real time WIP (work-in-progress) reports
3. Manufacturing Data
4. Cycle-Time Reporting
5. Order Release
6. E-Invoicing
7. Invoice Tracking
8. Drop Ship Inventory Report
9. Receiving Report
10. Scheduled Lots Report
11. WIP and Inventory Search Report
12. Ship Alert Report
13. Invoice Summary
14. Test Binning Report
15. Debit and Credit Note Report
16. Main Process Transaction Report

The manufacturing flow management process

The Internet has a positive impact on both aspects of the manufacturing flow management process. On one hand, the Internet provides the opportunity for demand and supply capacity data to be visible to all companies within a manufacturing supply chain, and therefore, the product flow through the manufacturing facilities can be improved. This visibility allows companies to be in a position to anticipate demand fluctuations and respond accordingly. The main effect of that is to reduce stocks and compress lead times. On the other hand, the Internet allows companies to be more flexible to respond to changes in demand. The Internet reduces the production cycles due to an increase in the speed of communication. Companies like IBM, General Motors, General Electric and Boeing are assembling products for which the components are manufactured in many locations.

Conclusion

Modern supply chains focus on customers. As a result business and manufacturing processes need to be agile and scalable. When a customer wants a change they must be prepared to shift directions accordingly. Companies are looking at how to provide greater flexibility in moving parts globally. With the emergence of the Internet, customers seek out specific products they want at the prices they're willing to pay. Modern supply chains focus on the customer. Manufacturers need to precisely gauge what a customer might want, how to package it and where to ship it. When the customer wants a change, they need to be prepared to shift directions quickly. As a result, business and manufacturing processes need to be just as agile and scalable. Manufacturers who do not adopt proven methods to succeed today may be out of business tomorrow.

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