

Supply Chain Management

Introduction to Supply Chain Management

The concept of Supply Chain Management is based on two core ideas. The first is that practically every product that reaches an end user represents the cumulative effort of multiple organizations. These organizations are referred to collectively as the supply chain.

The second idea is that while supply chains have existed for a long time, most organizations have only paid attention to what was happening within their “four walls.” Few businesses understood, much less managed, the entire chain of activities that ultimately delivered products to the final customer. The result was disjointed and often ineffective supply chains.

Supply chain management, then, is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage. It represents a conscious effort by the supply chain firms to develop and run supply chains in the most effective & efficient ways possible. Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities.

The organizations that make up the supply chain are “linked” together through physical flows and information flows. Physical flows involve the transformation, movement, and storage of goods and materials. They are the most visible piece of the supply chain. But just as important are information flows. Information flows allow the various supply chain partners to coordinate their long-term plans, and to control the day-to-day flow of goods and material up and down the supply chain.

Definitions of Supply Chain Management

Council of Supply Chain Management Professionals

Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies.

Ohio State University Global Supply Chain Forum

Supply chain management is the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders

Supply Chain Council

The supply-chain encompasses every effort involved in producing and delivering a final product or service, from the supplier's supplier to the customer's customer . Supply-chain management includes managing supply and demand, sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, and delivery to the customer.

University of Tennessee Supply Chain Research Group

The systematic, strategic coordination of the traditional business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole.

SCM is a management process that deals with inbound and outbound flows from the perspective of the focal organization, its suppliers, and its customers.

Five basic components of Supply Chain Management

1. Plan
2. Develop (Source)
3. Make
4. Deliver
5. Return.

Plan

The first stage in supply chain management is known as plan. A plan or strategy must be developed to address how a given good or service will meet the needs of the customers. A significant portion of the strategy should focus on planning a profitable supply chain.

This is the strategic portion of SCM. Companies need a strategy for managing all the resources that go toward meeting customer demand for their product or service. A big piece of SCM planning is developing a set of metrics to monitor the supply chain so that it is efficient, costs less and delivers high quality and value to customers.

Develop (Source)

Develop is the next stage in supply chain management .It involves building a strong relationship with suppliers of the raw materials needed in making the product the company delivers. This phase involves not only identifying reliable suppliers but also planning methods for shipping, delivery, and payment.

Companies must choose suppliers to deliver the goods and services they need to create their product. Therefore, supply chain managers must develop a set of pricing, delivery and payment processes with suppliers and create metrics for monitoring and improving the relationships. And then, SCM managers can put together processes for managing their goods and services

inventory, including receiving and verifying shipments, transferring them to the manufacturing facilities and authorizing supplier payments.

Make

At the third stage, make, the product is manufactured, tested, packaged, and scheduled for delivery. This is the manufacturing step. Supply chain managers schedule the activities necessary for production, testing, packaging and preparation for delivery. This is the most metric-intensive portion of the supply chain - one where companies are able to measure quality levels, production output and worker productivity.

Deliver

Then, at the logistics phase, customer orders are received and delivery of the goods is planned. This fourth stage of supply chain management stage is aptly named deliver.

This is the part that many SCM insiders refer to as logistics, where companies coordinate the receipt of orders from customers, develop a network of warehouses, pick carriers to get products to customers and set up an invoicing system to receive payments.

Return

The final stage of supply chain management is called return. As the name suggests, during this stage, customers may return defective products. The company will also address customer questions in this stage.

This can be a problematic part of the supply chain for many companies. Supply chain planners have to create a responsive and flexible network for receiving defective and excess products back from their customers and supporting customers who have problems with delivered products.

Why SCM strategy is important for an Organization

Supply Chain Strategies are the critical backbone to Business Organizations today. Effective Market coverage, Availability of Products at locations that hold the key to revenue recognition depends upon the effectiveness of Supply Chain Strategy rolled out. Very simply stated, when a product is introduced in the market and advertised, the entire market in the country and all the sales counters need to have the product where the customer can buy and take delivery. Any glitch in the product not being available at the right time can result in the drop in customer interest and demand which can be disastrous. Transportation network design and management assume importance to support sales and marketing strategy.

Inventory control and inventory visibility are two very critical elements in any operations for these are the cost drivers and directly impact the bottom lines on the balance sheet. Inventory

means value and is an asset to the company. Every business has a standard for inventory turnaround that is optimum for the business. Inventory turnaround refers to the number of times the inventory is sold and replaced over a period of twelve months. The health of the inventory turn relates to the health of business.

In a global scenario, the finished goods inventory is held at many locations and distribution centers, managed by third parties. A lot of inventory would also be in the pipeline in transportation, besides the inventory with distributors and retail stocking points. Since any loss of inventory anywhere in the supply chain would result in loss of value, effective control of inventory and visibility of inventory gains importance as a key factor of Supply Chain Management function.

Key Features of Supply Chain Management

Supply chain softwares are robust, feature-rich technology softwares that enhance operations from end-to-end.

Today's popular supply chain softwares can help companies achieve and maintain a competitive edge by empowering them to streamline and enhance their most important supply chain operations from start to finish. With supply chain software in place, organizations can maximize cost-efficiency, increase productivity, and give their bottom line a big boost.

This functionality is designed to fully automate and support supply chain processes from end-to-end, and includes:

Inventory Management

With a supply chain package, companies can significantly improve the way they track and manage their supplies of raw materials and components needed for production, finished goods to satisfy open sales orders, and spare parts required for field service and support. This eliminates excess and waste, frees up valuable real estate for other important purposes, and minimizes related storage costs.

Order Management

Supply chain software can dramatically accelerate the execution of the entire **order-to-delivery** cycle by helping companies to more productively generate and track sales orders. Supply chain also enables the dynamic scheduling of supplier deliveries to more effectively meet demand, and more rapid creation of pricing and product configurations.

Procurement

All activities and tasks associated with sourcing, purchasing, and payables can be fully automated and streamlined across a company's entire supplier network with a supply chain software package. As a result, businesses can build stronger relationships with vendors, better

assess and manage their performance, and improve negotiations to leverage volume or bulk discounts and other cost-cutting measures.

Logistics

As companies expand globally, their supply chains become more and more complex. This makes the coordination of the numerous warehouses and transportation channels involved quite a challenging endeavor without supply chain software in place. With supply chain, businesses can improve on-time delivery performance and boost customer satisfaction by achieving complete visibility into how finished goods are stored and distributed, regardless of the number of facilities or partners that participate.

Forecasting and Planning

With supply chain software, organizations can more accurately anticipate customer demand, and plan their procurement and production processes accordingly. As a result, they can avoid unnecessary purchases of raw-materials, eliminate manufacturing over-runs, and prevent the need to store excess finished goods, or slash prices to move products off of warehouse shelves.

Advantages of SCM

Supply chain software provides numerous advantages to organizations, empowering them to improve operations from end-to-end.

Key Benefits of Supply Chain Management Software:

- Improve Your Supply Chain Network
- Minimized Delays
- Enhanced Collaboration
- Reduced Costs.

Supply Chain Management - Problems and Roadblocks

Companies increasingly are becoming aware that their opportunity to having a competitive edge in business can come through supply chain. In the case of companies operating on global scale, supply chain strategies drive operational efficiencies and affect the bottom line. Unlike technology or other core areas affecting business, Supply chain is always in a dynamic mode. Project managers who head supply chain projects are often faced with lot of challenges and issues to over come all through the project. In this topic we air to discuss a few practical problems and road blocks faced in implementing and operations of Global supply chain projects.

Project Scale & Span of Control

Often projects are rolled out on global scale involving multiple countries and locations with all sites scheduled to go live around same timelines. The Project managers and sponsors would be located in one country and physically it becomes impossible for project managers to keep running to all locations and be available to concentrate on all sites. Yes project teams are formed at regional country level. However if the project planning, design and control lies with one office or a single person or a team, the rest of the project teams would become enablers and implementers resulting in the dilution of energy and focus. The core project team resources cannot spread themselves thin to attend to all sites and hence the biggest or the most important locations get attention while the others suffer due to lack of focus.

Supply chain projects involve technology implementation including infrastructure and software. They also involve multiple logistical modules involving transportation, international freight and warehousing etc.

Span of control over project implementation is very important in case of logistics projects involving multiple channels and external and internal agencies. Project managers at best can concentrate on rolling out the project in one country depending upon the number of sites and the logistical components involved.

If the project involves setting up a distribution center or warehouse, all the more reasons that the roll out should be limited to country level.

Technology

Adoption of right technology and implementation often faces roadblocks in implementing global supply chain projects. Projects roll out common processes to be followed across all countries and locations and involve use of technology to drive the processes.

Many issues concerning technology are faced in a project:

- **Technology solutions**

Most multi national companies find that their supply chain operations across the world are managed not on one application or a set of applications, but each location and country would have implemented either legacy systems or stand alone systems to manage individual local logistics activities. Once implemented, it becomes difficult to isolate such applications and shift them to one common platform without which common processes and standardization cannot be driven across locations.

Secondly any software solution would require to be customized to suit local site and country requirements. One solution does not fit all. While the solution may work in one country with bigger volumes and size of supply chain network and warehouses, the same software may not be suitable to be implemented in a small country with one location.

- **Cost of Technology absorption**

Implementation of technology calls for the IT teams to travel to all locations, implement the setup. Train the people and stabilize the sites post Go Live. The cost of implementation can run high. Again all countries may not be able to bear the cost of such implementation.

- **Availability of technology infrastructure**

Technology infrastructure availability is different amongst countries and within the country. Internet connectivity and bandwidth may not be the same cross all locations which can hinder implementation of an internet based technology application. Normally if the project is driven at a global level, the local infrastructure issues of many countries do not figure while considering the suitability of IT platform for implementation.

- **Internal & External resource capability**

Supply chain projects involve multiple locations and cross functional departments and teams within the organization. Besides they also include multiple external agencies who manage the logistics.

Driving projects through various country managements requires enormous internal selling to be done. The projects also call for external selling with the service providers. Local country managements as well as the service provider country managements may or may not have the same interest and commitment to the project as much as the global project leadership would have. These are soft challenges faced by Project Managers, to be able to sell the idea and get commitment from all stake holders.

The availability of quality resources both internally and externally in all locations is critical to the implementation of the project and is often a challenge which can hold up implementations and training.

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