

Introduction to Supply Chain Management (TOPIC TWO)

This topic introduces students to supply chain management. It is vital that as procurement professionals, they learn the basic of managing supply chains. Management of supply chains is a skill which is based on clear objective focus and the need to establish a trusting and long-term relationship that benefits both parties.

Definition of a Supply Chain

A supply chain is a network of facilities that procure raw materials, transform them into intermediate goods and then final products, and deliver the products to customers through a distribution system.

It can also be described as a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers.

Supply chain management is the process of planning, controlling, monitoring and coordinating all steps in the activities that are involved in acquiring raw materials from vendors, transforming them into finished goods, and delivering both goods and services to customers.

Objectives of Supply Chain Management

- (a) To focus on satisfying ultimate customers. When customers decide to purchase, they trigger action along the entire chain.
- (b) To formulate and implement strategies based on capturing and retaining end customer business.

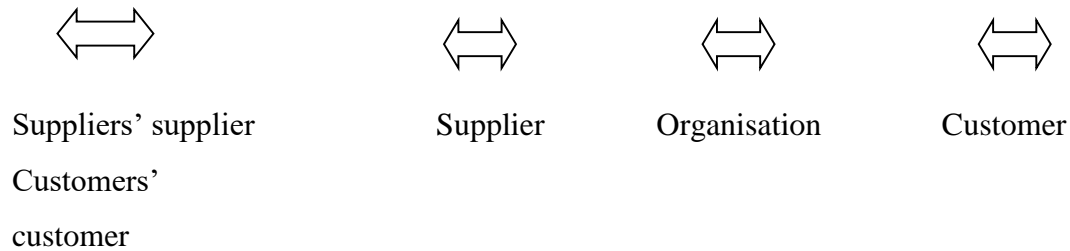
Types of Supply Chains

There are different types of supply chains – these can be classified in three broad categories which are discussed below:

- (a) **Direct supply chain** – made up of a company or supplier and a customer involved in upstream or downstream flow of products, services, finances and information

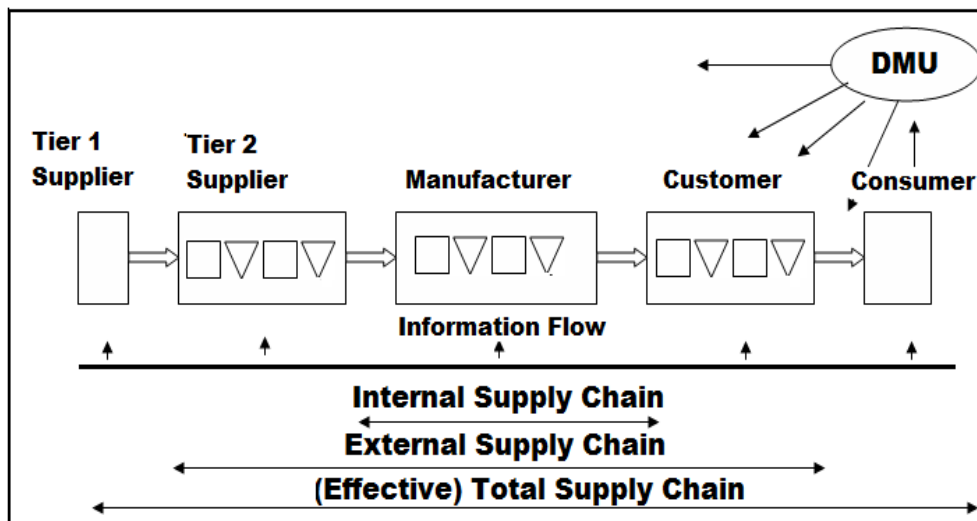


(b) **Extended supply chain** – includes suppliers of the immediate supplier and customers of the immediate customer



(c) **Ultimate supply chain** – includes all organisations involved in all the upstream and downstream flows of products, services, finances and information from the ultimate supplier to the ultimate customer

Illustration of the different classifications of Supply Chains



Supply Chain Flows

Typically, the items that flow in any given supply chain are products / services, finances and information. These items either flow upstream or downstream.

Downstream/downward flows are from raw material sources up to the ultimate customer. Materials and information flow downstream, from raw material sources through a manufacturing level transforming the raw materials to intermediate products.

Upstream / upward flows are from the ultimate customers back to the raw material sources. Materials and information flow upstream from the final customers, distribution centre, and manufacturers and back to suppliers. It could even be from the manufacture back to the suppliers.

Supply Chain Management Activities

The SCM processes operate within functional components of supply chain management which include: procurement, logistics, materials management, information management, stores and warehousing, inventory management, and total quality management. The supply chain management processes are:

- Managing relationships with customers – finding out what their needs are and working to meet these needs.
- Providing internal and external customer with high quality goods and services, at the lowest cost, with the shortest waiting times and maximum responsiveness and flexibility to their needs.
- Managing demand – making sure that supply matches customer demand.
- Fulfilling customers' orders efficiently, effectively and at the minimum cost.
- Managing manufacturing flow, that is all processes and activities needed to transform inputs into finished goods and services.
- Managing relationships with suppliers (SRM – Supplier Relationship Management)
- Developing products – all activities involved in the development and marketing of new or existing products.
- Managing returns - concerned with all activities relating to returning items, that is items moving from the ultimate customer in the direction of the raw material source. This includes collection of returnable items, their inspection and separation and the application of a range of disposition options including repair, reconditioning, upgrading, remanufacture and recycling.

Supply Chain Management Enablers

These are aspects that make it possible to undertake supply chain management activities. Marien E. J (2000) identified 4 enablers, which have to be in place for SCM to succeed. These 4 also become barriers to effective SCM if they are not in place.

- **Organisational infrastructure** - How business units and functional areas are organized and work together, how change management is handled, and how management functions and makes policies.
- **Technology** - The use of Information Technology (IT) within the firm to support activities. Having operations, marketing and logistics data coordinated within the company. Having data readily available to managers and the coordination of operations, marketing and logistics data between SC members.
- **Strategic alliances** - External parties selected as business allies and how inter – company relationships are built and managed (**relationships were discussed in section 2.5 of this chapter**).
- **Human resource management** – The right people need to be present to undertake the supply chain management activities. They need to be managed and motivated. Important aspects in managing human resources in supply chain management are:
 - (a) Sourcing, hiring and selecting skilled people at all management levels
 - (b) Finding change agents to manage SCM implementation
 - (c) Having compensation and incentive programmes in place for SCM performance
 - (d) Finding internal process facilitators knowledgeable about SCM

Supply Chain Risks / Challenges Faced in Supply Chains

Supply chains are vulnerable to both external and internal risks – these risks pose challenges in supply chains. External risks are those attributed to environmental, economic, political and social causes such as storms, strikes, wars, etc. while internal risks are those attributed to interactions between firms in the supply chain. Due to the presence of many members in the supply chain, each with different aims and objectives, challenges are bound to arise. It is vital for us to know what

these challenges are as purchasing professionals, so that we will find out how they can be managed and reduce risks/ costs and ensure good relationships amongst members. Challenges include:

- Mistrust and distorted information, e.g. bullwhip effect that results in fluctuation of orders as they move upstream to manufacturers and suppliers.
- It is hard to make the right decisions due to mistrust and distorted information
- Lack of responsiveness by customers or suppliers to changing environmental conditions and market signals, making them unable to react to competition moves or market opportunities.
- Supplier base reduction - this is reducing on the number of suppliers the firm is dealing with. This could lead to single sourcing, where a firm uses one supplier of dual sourcing, where there are two suppliers.
- Globalization – “the world becoming one big village”. This brings about issues of extended lead time, transport difficulties and having to deal with political, cultural, social aspects.
- Acquisitions, mergers and alliances that reduce supply chain availability (supply chains become fewer).

Managing Supply Chain Risk

The risks encountered in the supply chains have to be managed so that firms benefit. The following suggestions can be used to manage supply chain risk.

- Diversification through multiple sourcing
- Stock piling – using inventory as a buffer against all eventualities
- Insurance – against losses caused by supply chain disruption
- Supplier selection – more careful assessment of supplier capability and risks of dealing with particular suppliers
- Contractual obligation - imposing legal obligations with stiff penalties for non – delivery
- Localized sourcing – reduction of risks arising from congested transport networks or inter - modal transport transfer by shortening transport distances.

Relationship between Procurement and Supply Chain Management

Procurement and supply chain management (SCM) are interconnected but distinct functions within a business. Procurement focuses on the sourcing and purchasing of goods and services, while SCM encompasses the entire process of delivering those goods to the end customer, including procurement, production, and logistics. Procurement is essentially a subset of supply chain management, providing the necessary inputs for the larger supply chain process.

Here's a more detailed breakdown:

Procurement:

Core Function:

Identifying, selecting, and acquiring goods and services from external suppliers.

Key Activities:

Sourcing, negotiating contracts, managing supplier relationships, and ensuring timely delivery of materials.

Focus:

Cost-effectiveness, quality control, and risk mitigation in the purchasing process.

Supply Chain Management:

Core Function:

Overseeing the entire flow of goods and services from raw materials to the end consumer.

Key Activities:

Procurement, production planning, inventory management, logistics, and distribution.

Focus:

Optimizing the entire network to ensure efficiency, reduce costs, and meet customer demands.

Relationship:

- Procurement is a crucial component of the supply chain, providing the materials and services needed for production and operations.
- Effective procurement practices are essential for a smooth and efficient supply chain.
- SCM provides the framework and processes for managing the entire flow, including procurement, to achieve overall business objectives.

- Both functions work together to improve business efficiency, reduce costs, and enhance customer satisfaction.

OTHER VITAL INFORMATION TO READ

Supply Chain Relationships

In dealing with each other, members in the supply chain develop relationships. Relationships are important in business because they make working together easier. There are different types of relationships depending on the objectives of forming the relationship and the situation in which dealings take place. Relationships may be collaborative, transactional and alliances.

(a) Transactional Relationships

These relationships are not close and are referred to as “arms – length”. Here neither party is concerned with the well – being of the other. There is an absence of concern by both parties about the well-being of the other party. “When one party wins, the other loses”. Openness does not exist in this type of relationship – information about costs and forecasts is not freely shared. The primary focus of the relationship is price. The supplier wants to maximize profits (charges the highest price) while the buyer wants to minimize costs (looks out for the lowest possible price). At the end, prices are determined by the market forces of demand and supply.

(b) Collaborative Relationships

In these relationships, people work together and realize the need to do so as compared to transactional relationships. Parties aim at managing the relationship, building trust, communication and joining efforts.

Then parties work together in this way, they enjoy benefits like improvements in costs, quality, reduced time to market and access to better technologies. Continuous improvement is easier to implement and manage where there is cooperation and interdependence. A lot of time, energy and human resources have to be invested to develop and manage collaborative and alliance relationships.

(c) Alliance Relationships

The main difference between a collaborative and an alliance relationship is the presence of a higher level of trust in alliance relationships. (This trust is called institutional trust). With institutional trust, the parties have access to each other's strategic plans; relevant cost information and forecasts are shared; risks and rewards openly addressed; and informal agreements as good as written ones.