Supply Chain Planning and Control

WHAT IS SUPPLY CHAIN MANAGEMENT

- Supply chain management is the management of the interconnection of organisations that relate to each other through upstream and downstream linkages between the processes that produce value to the ultimate consumer in the form of products and services.

- It is a holistic approach to managing across company boundaries.

- In large organisations there can be many hundreds of strands of linked operations passing through the operation.

- These strands are more commonly referred to as supply chains.

Supply Chain Management Objectives

- All supply chain management shares one common and central objective – to satisfy the end customer.

- All stages in a chain must eventually include consideration of the final customer, no matter how far an individual operation is from the end customer.

- When a customer decides to make a purchase he or she triggers action back along the whole chain.

- All the businesses in the supply chain pass on portions of that end customers money to each other, each retaining a margin for the value it has added.

- Each operation in the chain should be satisfying its own customer, but also making sure that eventually the end customer is also satisfied.

Supply Chain Objectives

- Meeting the requirements of end customers requires the supply chain to achieve appropriate levels of the five operations performance objectives:
  - Quality
    - The quality of a product or service when it reaches the customer is a function of the quality performance of every operation in the chain that supplied it.
    - Errors in each stage of the chain can multiply in their effect on end customer service.
This is why; only by every stage taking some responsibility for its own and its supplier’s performance can a supply chain achieve high end customer quality.

- **Speed**
  - How fast customers can be served is an important element in any businesses ability to compete.
  - However, fast customer response can be achieved simply over resourcing or over stocking within the supply chain.
  - An alternative perspective on speed is the time taken for goods and services to move through the chain.

- **Dependability**
  - One can almost guarantee on time delivery by keeping excessive resources such as inventory within the chain.
  - However, dependability of throughput time is a much more desirable aim because it reduces uncertainty within the chain. Delivery dependability is often measured as on time, in full in supply chains.

- **Flexibility**
  - The supply chains ability to cope with changes and disturbances. This is often referred to as supply chain agility.
  - Agile supply chains are sufficiently flexible to cope with changes either in the nature of customer demand or in the supply capabilities of operations within the chain.

- **Cost**
  - The supply chain as a whole incurs additional costs that derive from each operation in a chain doing business with each other.
  - These may include things such as the cost of finding appropriate suppliers, setting up contractual agreements, monitoring supply chain performance, transporting products between operations, holding inventories and son on.
  - Many developments in supply chain management such as partnership agreements or reducing the number of suppliers are attempts to minimise transaction costs.
THE ACTIVITIES OF SUPPLY CHAIN MANAGEMENT

- Supply chain management coordinates all the operations on the supply side and the demand side.
- Purchasing and supply management deals with the operations interface with its supply markets.
- Physical distribution management may mean supplying immediate customers, while logistics is an extension that often refers to materials and information flow down through a distribution challenge to the retail store or consumer.
- The term third party logistics indicates outsourcing to a specialist logistics company.
- Materials management is a more limited term and refers to the flow of materials and information only through the immediate supply chain.

Purchasing (procurement) and Supply Management

- At the supply end of the business, purchasing buys in materials and services from suppliers.
- Typically the volume and value of these purchases are increasing as organisations concentrate on their core tasks.
- Purchasing managers provide a vital link between the operation itself and suppliers,
- They must understand the requirements of all the processes within the operation and also the capabilities of the suppliers who could potentially provide products and services for the operation.
- Purchasing can also have a significant impact on any operations costs, and therefore profits.

Supplier Selection

- Choosing appropriate suppliers should involve trading off alternative attributes. Rarely are potential suppliers so clearly superior to their competitors that the decision is self-evident.
- Most businesses find it best to adopt some kind of supplier scoring or assessment procedure.
- Choosing suppliers should involve evaluating the relative importance of all these factors.
- Single and multi-sourcing
An important decision facing most important managers is whether to source each individual product or service from one or more than one supplier. This is known respectively as single sourcing and multi sourcing.

**Purchasing, the Internet and E-Procurement**

- For some years electronic means have been used by businesses to confirm purchased orders and ensure payment to suppliers.
- The rapid development of the internet, however, opened up the potential for far more fundamental changes in purchasing behaviour. Partly this was as a result of supplier information made available through the internet.
- E-procurement is the generic term used to describe the use of electronic methods in every stage of the purchasing process from identification of requirement through to payment, and potentially to contract management.
- The benefits of e-procurement include:
  - It promotes efficiency improvements in purchasing processes.
  - It improves commercial relationships with suppliers.
  - It reduces the transaction costs of doing business for suppliers.
  - It opens up the marketplace to increased competition and therefore keeps prices competitive.
  - It improves a business’s ability to manage their supply chain more efficiently.
- Lowering the prices is only one of the benefits of e-procurement.
- The cost savings from purchased goods may be most visible advantages of e-procurement.
- It can also be far more efficient because purchasing staff are no longer chasing purchase orders and performing routine administrative tasks.
- Much of the advantage and time savings come from the decreased need to re-enter information, from streamlining the interaction with suppliers and from having a central repository for data with everything connected in one system.
- Purchasing staff can negotiate with vendors faster and more effectively.
- Electronic marketplaces
  - E-procurement has grown largely because of the development over the last ten years of electronic marketplaces.
These operations which have emerged in business to business commerce offer services to both buyers and sellers.

They have been defined as an information system that allows buyers and sellers to exchange information about prices and product offerings and the firm operating the electronic marketplace acts as an intermediary.

They can be categorised as consortium, private or third party:

- A private e-marketplace is where buyers and sellers conduct business in the market only with their partners and suppliers by previous arrangement.

- The consortium e-marketplace is where several large businesses combine to create an e-marketplace controlled by the consortium.

- A third party e-marketplace is where an independent party creates an unbiased market driven e-marketplace for buyers and sellers in an industry.

The scope of e-procurement

- The influence of the internet on purchasing behaviour is not confined to when the trade actually takes place over the internet.

- It is also an important source of purchasing information even if the purchase is actually made by using more traditional methods.

- Also, even though many businesses have gained advantages by using e-procurement it does not mean that everything should be bought electronically.

- Four questions seem to influence whether e-procurement will be appropriate:

  - Is the value of the spend high or low – high spending on purchased products and services gives more potential for savings from e-procurement.

  - Is the product or commodity highly substitutable or not – when products and services are substitutable, e-procurement can identify and find lower cost alternatives.

  - Is there a lot of competition or little – when several suppliers are competing, e-procurement can manage the process of choosing a preferred supplier more effectively and with more transparency.

  - How efficient are your internal processes – when purchasing processes are relatively inefficient, e-procurements potential to reduce processing costs can be realised.

**Global Sourcing**