

SUPPLY CHAIN MANAGEMENT-1

Unit-V

Pricing and Revenue Management in a Supply Chain:

SCM - Pricing & Revenue

Pricing is a factor that gears up profits in supply chain through an appropriate match of supply and demand. Revenue management can be defined as the application of pricing to increase the profit produced from a limited supply of supply chain assets.

Ideas from revenue management recommend that a company should first use pricing to maintain balance between the supply and demand and should think of further investing or eliminating assets only after the balance is maintained.

The assets in supply chain are present in two forms, namely **capacity** and **Inventory**

Capacity assets in the supply chain are present for manufacturing, shipment, and storage while inventory assets are present within the supply chain and are carried to develop and improvise product availability.

Thus, we can further define revenue management as the application of differential pricing on the basis of customer segment, time of use and product or capacity availability to increment supply chain surplus.

Revenue management plays a major role in supply chain and has a share of credit in the profitability of supply chain when one or more of the following conditions exist –

- The product value differs in different market segments.
- The product is highly perishable or product tends to be defective.
- Demand has seasonal and other peaks.
- The product is sold both in bulk and the spot market.

The strategy of revenue management has been successfully applied in many streams that we often tend to use but it is never noticed. For example, the finest real life application of revenue management can be seen in the airline, railway, hotel and resort, cruise ship, healthcare, printing and publishing

What is the role of pricing and revenue management system?

Hence, the objective of pricing and revenue management is **to stimulate demand from different customers to earn the maximum revenue from them**. The essence of this discipline is to understand the customers' perceptions of value and to accurately align the right products to each customer segment.

What is revenue management pricing?

Revenue management is **the use of pricing to increase the profit generated from a limited supply of supply chain assets**. – SCs are about matching demand and capacity. – Prices affect demands. Yield management similar to RM but deals more with quantities rather than prices.

What is the major role of revenue management in supply chain?

The main aim of pricing and revenue management in a food distribution supply chain is to **create a balance between supply and demand, while simultaneously optimizing profits**.

Traditionally, businesses would tweak the availability of their assets.

What is the relationship between price and revenue?

The changes in total revenue are based on the price elasticity of demand, and there are general rules for them: Price and total revenue have a positive relationship when demand is inelastic (price elasticity < 1), which means that **when price increases, total revenue will increase too**.

How are price and revenue related?

1) **Revenue is equal to the number of units sold times the price per unit**. To obtain the revenue function, multiply the output level by the price function.

What is the main goal of revenue management?

The ultimate goal of revenue management is **to have the right room for the right person at the right time and place**. When this occurs, you will be more likely to maximize your revenue, and in turn, your profit.

What are the five core factors of revenue management?

Dynamic Factors in Revenue Management

- Revenue Management Pricing. The most obvious factor in revenue management is the price. ...
- Inventory Revenue Management Systems. ...
- Revenue Marketing Strategies and Opportunities. ...
- Sales Channels and Revenue Pricing.

What are the five benefits of revenue management?

The Advantages of Revenue Management: A Look Inside

- 1) Know your customers' expectations. ...
- 2) Segment the market. ...
- 3) Price competitively. ...
- 4) Foster collaboration. ...
- 5) Eliminate manual processes.

Information Technology in a Supply Chain:

The Role of IT in Supply Chain Management

Businesses are digitalizing their processes in the past couple of decades. And it is becoming a necessity rather than an option. Why not? It is integrating various operations carried out by different companies in the supply chain. The role of IT in supply chain management is to speed up business processes and prevent bottlenecks. Companies are closer to accomplishing on-time procurement, shorter inventory, and better efficiency, particularly in manufacturing. The role of Information Technology in supply chain management is so amazing, as IT is allowing companies in the supply chain for meeting the needs of consumers.

Why is It Important in Supply Chain Management?

The role of IT in supply chain management is so important. There are a lot of uses of Information technology in supply chain management. It is providing the tools which can pick up relevant information, and break it down for proper analysis. As well as helps in executing it for optimum supply chain performance. Data is pivotal to the operation of the supply chain. Primarily because it offers the base on which the supply chain managers are taking decisions.

Subsequently, real-time information is the key to proper supply chain management. With information about the various stages of the supply chain, decision-makers can strategize, manage, and adjust processes to accomplish goals in procurement, inventory, manufacturing, etc. these all are the points which are showing us the importance of IT in supply chain management and the uses of IT in supply chain management.

The Role of IT in Supply Chain Management

It is leaving a mark everywhere. No wonder each aspect of a business is now under its command! The role of IT in SCM is emphasized in the following.

1. Integrated and Coordinated Supply Chain

A supply chain can work efficiently when it is properly integrated and well-coordinated. IT is performing this important task by bringing in multiple technologies and combining them to optimize the supply chain. These technologies are making data collection possible and much easier and more accurate. Ultimately, this is allowing precise and detailed data analysis leading to sound business decisions.

2. Increased Productivity

A smooth flow of information, new technologies, and effective communication increases the productivity of all entities in the supply chain. It is like an initiation for product movement. Additionally, IT is building the link that passes the needed information continuously.

3. Cost Reduction

It permits the optimum utilization of assets and resources. Previous data is used to study the trends. And technology is used to analyze it for refining performance. When resources are being used optimally, they result in cost reduction.

The role of IT in SCM becomes more prominent as it motivates all parties to use their respective resources in the most cost-efficient approach. When IT is used as it should be, there is a dramatic decrease in overall expenses.

4. Product Improvement

Furthermore, IT is consisting of tools and applications which can be used to attain early awareness. In a market where customers always want something new, the product will either have to evolve or else it will go out of demand. Therefore, to remain in business, you must present product improvement and innovation sooner rather than later.

5. Supply Chain Visibility

Consequently, information builds the whole supply chain visible to supply chain managers. How the information flows from one collaborator to the other and the effect it has on others is used by the managers in creating strategic decisions.

Following are the functional roles of IT in supply chain management

Apart from the above-mentioned fundamental roles, there are three functional roles of IT in SCM. These are:

1. Transaction execution

When information is flowing efficiently between the participants of the supply chain, the number of transactions between them is decreased. Therefore, IT increases the efficiency of repetitive and frequent data exchanges. This data is generally suitable for delivery verification, order processing, billing, and dispatch advice.

2. Collaboration and coordination

It renders the flow of information. This makes for easier coordination, planning, and improved collaboration between all participants. Demand forecasting will be making it possible for planning for the future. As well as order tracking makes knowing the physical location of each order a reality. Neither of these activities is probable without IT.

3. Decision support

They are and should be based on data and information. Since IT is a mega benefit in decision support. It can help in collecting even the most complicated set of data. And it can convert them into easy-to-understand charts and reports. In this context, IT is extending decision support to all managers.

Above points show us the role of Information Technology in supply chain management or the functional role of Information technology in supply chain management.

Benefits of IT in Supply Chain Management

It has both a direct and indirect impact on supply chain management. There are a lot of benefits of IT in supply chain management. here is the list of benefits:

- Impact of IT in supply chain management improved access to information by providing quality information.
- Implementing IT in supply chain management help companies to reduce cost.
- It can also improve operational efficiency and provide better collaboration opportunities.

Future of IT in Supply Chain Management

Emerging technologies like AI and IoT greatly impact supply chain management. In recent years supply chain management changed a lot. The role of technology in supply chain management is important. It makes inroads into supply chain management and changed the whole dimension of supply chain management.

Technology has made things easier than before that's the reason every organization want to adopt new emerging technology into supply chain management. for example, Blockchain is one such technology that provides data security. So, all in all, the future of Information technology in supply chain management is bright. Technology will become the game-changer point in supply chain management.

How does information technology IT impact a supply chain?

Because technology and automation for the supply chain utilize real or near real-time data, **companies have greater visibility and can track activities better**. This helps improve collaboration and communication with key vendors and reduces cost through better vendor contract management.

What is the role of technology in supply chain?

Supply chain technology makes it easier to evaluate data, gain insights (on things like customer demand, transportation/warehouse restrictions, and supplier lead times), and make decisions that have direct and indirect effects on overall supply chain performance.

How information technology can improve supply chain?



Quickly Note Warning Signals, Solve Issues and Forecast Problems. Used to measure world events in real time, machine learning and big data tools can forecast supply chain issues and

provide early warning signals as things start to go wrong, such as weather negatively impacting logistics in some regions.

What are the three major information technologies to support supply chain management?

AI, machine learning, and analytics

Every modern supply chain has a vast treasure trove of data that can unlock insights into complex global supply networks.

Coordination in a Supply Chain:

Features of coordination

Coordination is the integration, unification, synchronization of the efforts of the departments to provide unity of action for pursuing common goals. A force that binds all the other functions of management.

The management of an organization endeavours to achieve optimum coordination through its basic functions of planning, organizing, staffing, directing, and controlling.

Therefore, coordination is not a separate function of management because management is successful only if it can achieve harmony between different employees and departments. Here are some important features of coordination:

- It is relevant for group efforts and not for individual efforts. Coordination involves an orderly pattern of group efforts. In the case of individual efforts, since the performance of the individual does not affect the functioning of others, the need for coordination does not arise.
- It is a continuous and dynamic process. Continuous because it is achieved through the performance of different functions. Also, it is dynamic since functions can change according to the stage of work.
- Most organizations have some sort of coordination in place. However, the management can always make special efforts to improve it.
- Coordination emphasizes the unity of efforts. This involves fixing the time and manner in which the various functions are performed in the organization. This allows individuals to integrate with the overall process.
- A higher degree of coordination happens when the degree of integration in the performance of various functions increases.
- It is the responsibility of every manager in the organization. In fact, this is integral to the role of a manager because he synchronizes the efforts of his subordinates with others.

Supply chain coordination (SCC) is an effective approach to improve supply chain (SC) performance. The coordination can be achieved when interdependent entities work together by sharing resources and information to achieve common objectives aligned to maximise customer value for the entire SC. There are a number of mechanisms by which the SC members can coordinate, e.g. contracts, information sharing, information technology and collaborative initiatives. To communicate frequently and effectively, the partners are required to have good information systems and capability to share information. To coordinate with each other the SC members are required to have capabilities to implement coordination mechanisms effectively. In this paper, a model is proposed to measure the effect of these mechanisms on the extent of coordination. Currently, there is no scale of measurement reported in the literature to measure the SCC. A fuzzy logic approach combined with the analytic hierarchy process (AHP) is proposed to evaluate the extent of coordination. The proposed methodology is demonstrated through a case study of an automotive parts manufacturer.

Why is coordination important in the supply chain?

It will increase the lead times for replenishment in the supply chain. It will increase the cost associated with labours in shipping and receiving of the products at various locations. It will reduce the availability of the products whenever there is high demand.

What is an example of coordination in supply chain?

Supply Chain Coordination

The classic example is the “**double marginalization**” result of Spengler (1950) in which the retailer does not consider the supplier's profit margin when setting his order quantity, so he orders too little product for system optimization.

Obstacles to Coordination in Supply Chain

Any factor that leads to either local optimization by different stages of the supply chain or an increase in information delay, distortion, and variability within the supply chain is an obstacle to coordination. If managers in a supply chain are able to identify the key obstacles, they can then take suitable actions to help achieve coordination. We divide the major obstacles into five categories:

- Incentive obstacles
- Information processing obstacles
- Operational Obstacles
- Pricing obstacles

- Behavioral obstacles

Managerial levers to achieve Coordination –

- Aligning goals & incentives
- Improving information visibility & accuracy
- Improving operational performance
- Designing pricing strategies to stabilize orders
- Building strategic partnership & trust