UNIT 1 INTRODUCTION TO MARKETING LOGISTICS / SYSTEM

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1.0 OBJECTIVES

After studying this unit, you should be able to:

- explain the concept, objectives and importance of marketing logistics
- describe various tasks involved in marketing logistics
- explain that distribution, marketing and manufacturing need an integrated approach so as to develop a competitive advantage
- explain the factors that make international logistics different from domestic logistics
- describe the recent developments in international logistics affecting the supply and demand for more efficient logistic services
- identify the need areas of logistics information and explain the role of information technology in respect thereof.

1.1 INTRODUCTION

Management of delivery of goods to the buyer is as important an element as any other activity in marketing. This is more true of international business where competition is fierce and suppliers from various sources are readily available. Quite often, the most crucial part in export trade is the timely delivery of goods at a reasonable cost by the exporter to the importer. In fact, the prospective buyer may be willing to pay even higher price for timely supplies. But, the emergence of logistics as an integrative activity, with the movement of raw materials from their

sources of supply to the production line and ending with the movement of finished goods to the customer, has been a development of the last couple of decades. Earlier on, all the functions comprising logistics were not viewed as components of a single system. But, with emergence of logistics as an important part of corporate strategy due to the certain developments in the field of international trade has gained special significance. In this unit, you will learn about the concept of logistics, its objectives, importance, tasks, and the developments in international logistics.

1.2 CONCEPT OF MARKETING LOGISTICS

The word 'logistics' is derivative of a French word 'loger' which means the art of transport, supply and quartering of troops. Essentially a military concept, it is now commonly applied to marketing management. Fighting a war requires the setting of an objective, and to achieve this objective meticulous planning is needed so that the troops are properly deployed and the supply line consisting, interalia, weaponary, food, medical assistance, etc. is maintained. Similarly, the plan should be such that there is a minimum loss of men and material while, at the same time, it is capable of being altered if the need arises. As in the case of fighting a war in the battle-field, the marketing managers also need a suitable logistics plan that is capable of satisfying the company objective of meeting profitably the demand of the targeted customers.

From the point of view of management, marketing logistics or physical distribution has been described as 'planning, implementing and controlling the process of physical flows of materials and final products from the point of origin to the point of use in order to meet customer's needs at a profit. As a concept, it means the art of managing the flow of raw materials and finished goods from the source of supply to their users. In other words, primarily it involves efficient management of finished goods from the end of product line to the consumers and, in some cases, include the movement of raw materials from the source of supply to the beginning of the production line. These activities include transportation warehousing, inventory control, order processing and information monitoring. These activities are considered primary to the effective management of logistics because they either contribute most to the total cost of logistics or they are essential to effective completion of the logistics task. However, the firms must carry out these activities as essential part of providing customer with the goods and services they desire.

1.3 OBJECTIVES OF MARKETING LOGISTICS

The basic objective of an ideal logistics system is to ensure the flow of supply to the buyer:

i) in correct quantity,

ii) at desired location,

iii) at required time,

iv) in usable condition, and

v) at the lowest cost

This implies that a firm will aim at having a logistics system which maximises the customer service and minimises the distribution cost. However, one can approximate the reality by defining the objective of logistics system as achieving a desired level of customer service i.e., the degree of delivery support given by the seller to the buyer. This comprises such elements as (a) speed of delivering normal orders, (b) speed of meeting emergency or non-anticipated order, (c) care in packing and handling distribution, (d) degree and speed of replacing defective goods, and (e) provision for sales services and maintenance of inventory. Thus, logistics management starts with ascertaining customer need till its fulfillment through product supplies and, during this process of supplies, it considers all aspects of performance which include arranging the inputs, manufacturing the goods and the physical distribution of the products. However, there are some specific objectives to be achieved through a proper logistics system. These can be described as follows :

Improving customer service : As you know, the marketing concept assumes that the sure way to maximise profits in the long run is through maximizing the customer satisfaction. As such, an important objective of all marketing efforts, including the physical distribution activities, is to improve the customer service.

An efficient management of physical distribution can help in improving the level of customer service by developing an effective system of warehousing, quick and economic transportation, and maintaining optimum level of inventory. But, as discussed earlier, the level of service directly affects the cost of physical distribution. Therefore, while deciding the level of service, a careful analysis of the customers' wants and the policies of the competitors is necessary. The customers may be interested in several things like timely delivery, careful handling of merchandise, reliability of inventory, economy in operations, and so on. However, the relative importance of these factors in the minds of customers may vary. Hence, an effort should be made to ascertain whether they value timely delivery or economy in transportation, and so on. Once the relative weights are known, an analysis of what the competitors are offering in this regard should also be made. This, together with an estimate about the cost of providing a particular level of customer service, would help in deciding the level of customer service.

Reduce total distribution costs : Another most commonly stated objective is to minimize the cost of physical distribution of the products. As explained earlier, the cost of physical distribution consists of various elements such as transportation, warehousing and inventory maintenance, and any reduction in the cost of one elements may result in an increase in the cost of the other elements. Thus, the objective of the firm should be to reduce the total cost of distribution and not just the cost incurred on any one element. For this purpose, the total cost of alternative distribution systems should be analysed and the one which has the minimum total distribution cost should be selected. (You may refer to Unit 2 where different approaches in this regard have been duly explained.)

Generating additional sales : Another important objective of the physical distribution system in a firm is to generate additional sales. A firm can attract additional customers by offering better services at lower prices. For example, by decentralizing its warehousing operations or by using economic and efficient modes of transportation, a firm can achieve larger market share. Also by avoiding the out-of-stock situation, the loss of loyal customers can be arrested.

Creating time and place utilities : The physical distribution system also aims at creating time and place utilities in the products. Unless the products are physically moved from the place of their origin to the place where they are required for consumption, they do not serve any purpose to the users. Similarly, the products have to be made available at the time they are needed for consumption. Both these purposes can be achieved by increasing the number of warehouses located at places from where the goods can be delivered quickly and where sufficient stocks are maintained so as to meet the emergency demands of the customers. Moreover, a quicker mode of transport should be selected to move the products from one place to another in the shortest possible time. Thus, time and place utilities can be created in the products through an efficient system of physical distribution.

Price stabilisation : Physical distribution may also aim at achieving stabilization in the prices of the products. It can be achieved by regulating the flow of the products to the market through a judicious use of available transport facilities and compatible warehouse operations. For example, in the case of industries such as cotton textile, there are heavy fluctuations in the supply of raw materials. In such cases if the market forces are allowed to operate freely, the raw material would be very cheap during harvesting season and very dear during off season. By stocking the raw material during the period of excess supply (harvest season) and made available during the periods of short supply, the prices can be duly stabilized.

1.4 IMPORTANCE OF MARKETING LOGISTICS

The importance of a logistics system lies in the fact that it leads to ultimate consummation of the sales contract. The buyer is not interested in the promises of the seller that he can supply goods at competitive price but that he actually does so. Delivery according to the contract is essential to fulfilling the commercial and legal requirements. In the event of failure to comply with the

stipulated supply period, the seller may not only get his sale amount back, but may also be legally penalised, if the sales contract so specifies. There is no doubt that better delivery schedule is a good promotional strategy when buyers are reluctant to invest in warehousing and keeping higher level of inventories. Similarly, better and/or timely delivery helps in getting repeat orders through creation of goodwill for the supplier. Thus, as effective logistics system contributes immensely to the achievements of the marketing objectives of a firm. It creates time and place utilities in the products and thereby helps in maximising the value satisfaction to consumers. By ensuring quick deliveries in minimum time and cost, it relieves the customers of holding excess inventories. It also brings down the cost of carrying inventory, material handling, transportation and other related activities of distribution. In nutshell, an efficient system of physical distribution has a great potential for improving customer service and reducing costs.

The ready acceptance of the dynamics of marketing logistics has been due to a number of factors, including:

i) Technological advancement in the fields of information processing and communication:

ii) Technological development in transportation and material handling; and

iii) Change in the attitude towards the total cost approach rather than direct cost approach.

As a result of these developments, the decision maker has a number of choices to work out the most ideal marketing logistics system. Essentially, this system implies that people at all levels of management think and act in terms of integrated capabilities and adoption of a total approach to achieve pre-determined logistics objectives.

Logistics is also important on the global scale. Efficient logistics system throughout the world economy are a basis for trade and a high standard of living for all of us. Lands, as well as the people who occupy them, are not equally productive. That is, one region often has an advantage over all others in some production speciality. An efficient logistics system allows a geographical region to exploit its inherent advantage by specializing its productive efforts in those products in which it has an advantage and by exporting these products to other regions. The system allows the products' landed cost (production plus logistics cost) and quality to be competitive with those from any other region. Common examples of this specialization have been Japan's electronics industry, the agricultural, computer and aircrafts industries of United States and various countries dominance in supplying raw materials such as oil, gold, bauxite, and chromium.

The other reasons why logistics has gained importance in the international trade can be summarized as follows:

1 Many companies are restructuring their production facilities on a global basis. Some manufacturers are centralizing production to gain economies of scale.

2 Product lines are proliferating. More and more product line variety is needed to satisfy the growing range of customer tastes and requirements, and stock levels in both field and factory inevitably rise.

3 Product life cycles are contracting. Companies that have gone all out to slash costs by turning to large scale batch production regularly, find themselves saddled with obsolete stocks and are unable to keep pace with competitors' new-product introductions.

4 In many industries, the value added by manufacturing is declining as the cost of materials and distribution climbs.

5 The balance of power in distribution chain is shifting from the manufacturers to the trader.

6 The advantage of low-cost, high volume data processing and transmission is revolutionizing logistics control systems. Because of new technologies, managers can now update sales and inventory planning faster and more frequently, and factories can respond with more flexibility to volatile market conditions.

Check Your Progress A

1 Define marketing logistics.

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2 List the main objectives of marketing logistics.

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3 Why do you consider marketing logistics an important activity?

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4 State whether the following statements are True or False.

i) Efficient customer service is the only objective of marketing logistics.

ii) Effective logistics system can bring stability in prices.

iii) Marketing logistics create place and time utilities.

iv) Marketing logistics does not include activities like order processing and information monitoring.

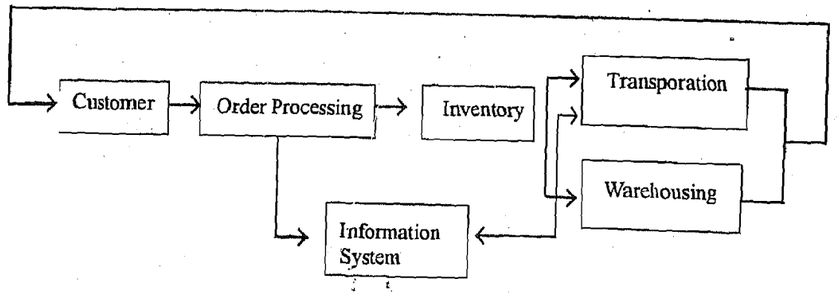
v) The emergence of logistics as an integrative activity is of recent origin.

vi) Logistics system does not allow the products' landed cost and quality to be competitive with those from any other region.

1.5 LOGISTICS TASKS

The important decisions in respect of physical distribution are : (1) how orders should be handled? (2) where should the warehouse be located? (3) how much stock should be kept on hand? and (4) how should the goods be transported? and (5) how is the logistics information monitored? In fact, as shown in Figure 1.1, these aspects constitute the major components of the physical distribution system.

Figure 1.1. Major Tasks of Physical Distribution System



Let us discuss about the components in detail.

Order Processing : The starting point of the physical distribution activities is the processing of customers' orders. In order to provide quicker customer service, the orders received from customers should be processed within the least possible time. Order processing includes receiving the order, recording the order, filling the order, and assembling all such orders for transportation, etc. The company and the customers benefit when these steps are carried out quickly and accurately. The error committed at this stage at times can prove to be very costly. For example, if a wrong product or the same product with different specifications is supplied to the customer, it may lead to cancellation of the original order (apart from loss in the credibility of the firm). Similarly, if the order is not executed within a reasonable time, it may lead to serious consequences. High speed data processing techniques are now available which allow for rapid processing of the orders.

Warehousing : Warehousing refers to the act of storing and assorting products in order to create time utility. The basic purpose of the warehousing activity is to arrange placement of goods, provide storage facility to store them, consolidate them with other similar products, divide them into smaller quantities and build up assortment of products. Some of the important decision areas in respect of warehousing are:

1 how many warehouses should the firm have?

2 where should these warehouses be located?

3 what should be the pattern of ownership of the warehouse (owned or rented)?

Generally, larger the number of warehouses a firm has the lesser would be the time taken in serving customers at different locations, but greater would be the cost of warehousing. Thus, the firm has to strike a balance between the cost of warehousing and the level of customer service.

Inventory Control : Linked to warehousing decisions are the inventory decisions which hold the key to success of physical distribution especially where the inventory costs may be as high as 30-40 per cent (e.g., steel and automobiles). No wonder, therefore, that the new concept of Just-in-Time-Inventory decision is increasingly becoming popular with a number of companies.

The decision regarding level of inventory involves estimation of demand for the product. A correct estimate of the demand helps to hold proper inventory level and control the inventory costs. This not only helps the firm in terms of the cost of inventory and supply to customers in time but also to maintain production at a consistent level. The major factors determining the inventory levels are:

1 The firm's policy regarding the customer service level

2 Degree of accuracy of the sales forecasts

3 Responsiveness of the distribution system i.e., ability of the system to transmit inventory needs to the factory and get the products in the market

The cost of inventory consists of holding cost (such as cost of warehousing, tied up capital and obsolescence) and replenishment cost (including the manufacturing cost).

Transportation : Transportation seeks to move goods from points of production and sale to points of consumption in the quantities required at times needed and at a reasonable cost. The transportation system adds time and place utilities to the goods handled and, thus, increases their economic value. To achieve these goals, transportation facilities must be adequate, regular, dependable and equitable in terms of costs and benefits of the facilities and service provided.

Information Monitoring : The physical distribution managers continuously need up-to-date information about inventory, transportation and warehousing. For example, in respect on inventory, information about present stock position at each location, future commitment and replenishment capabilities are constantly required. Similarly, before choosing a carrier, information about the availability of various modes of transport, their costs, services and suitability for a particular product is needed. About warehousing, information with respect to space utilization, work schedules, unit load performance, etc., is required.

In order to receive all the information stated above, an efficient management information system would be of immense use in controlling costs, improving services and determining the overall effectiveness of distribution. Of course, it is difficult to correctly assess the cost of physical distribution operations. But if correct information is available it can be analysed systematically and a great deal of saving can be ensured.

1.6 LOGISTICS AND MARKETING

Traditionally, physical distribution is considered as "The Other Half of MKTG". Marketing has primarily two purposes:

a) Obtaining demand, and

b) Servicing demand.

These two are linked by the level of customer service provided.

Obtaining demand is the result of promotional efforts of marketing as well as price and product mix offered to consumers. Once the demand has been secured, it must be served. This is where physical distribution comes in. The physical distribution efforts put the right product in the right place at the right time to meet demand requirements. Sales people have long recognized that physical distribution actually contributes to creating demand, product availability, prompt delivery, and accurate order filling are just a few of the services that can please a customer and additional sales can be generated by good service.

Traditionally, distribution has been viewed by many as a source of heavy costs, admittedly a necessary cost. Inevitably, such a viewpoint leads to a search for improvement in operating efficiency and a focus on cost reduction. In fact, logistics costs account for a large proportion of the sales value of many products. In a competitive market, particularly where substitutes are available and acceptable to the customer, a major advantage can be gained if logistic costs can be reduced without jeopardising the required service levels.

1.6.1 Marketing and Logistics Converge

Marketing experts have recognized that for developing a position of sustainable competitive advantage, a major source is superior logistics performance. Thus, it can be argued that instead of viewing distribution, marketing and manufacturing as largely separate activities within the business, they need to be unified, particularly at the strategic level. One might be tempted to describe such an integrated approach to strategy and planning as 'Marketing Logistics'. Business can only compete and survive either by winning a cost advantage or by providing superior value and benefit to the customer.

Increasingly, the power of the brand is diminishing as technologies of competing product converge, making product differences less apparent. Faced with such situations, the customer may be influenced by price or image perceptions, but over-riding these aspects the availability of product in stock may become the major consideration. A second change is that the

customer' expectations of service have increased. The customer is now more demanding and more sophisticated. Industrial buyers are more professional in their approach. Increasing use is made of formal vendor appraisal systems and suppliers are now confronted with the need to provide just-in-time delivery performance.

Another change that has had severe impact in many industries is the trend for product life cycles to become shorter. Rapid developments in technology which have created markets where none existed and have rendered themselves obsolete as the next generation of product is announced. Such shortening life cycles create substantial problems for logistics management. In particular, shorter life cycles demand shorter lead times. Lead time is traditionally defined as the elapsed period from receipt of customer order to the actual delivery. In today's environment there is a second aspect to lead-time i.e., how long does it take from procurement of raw materials, sub-assemblies, etc. to the delivery of the final product of the customer? What we are now witnessing is a situation where the product life cycle, in some cases, is in danger of becoming shorter than the procurement-to-delivery lead time with all the consequent problems for planning and operations that such a situation will create.

A further trend is that the production lead times are shortening through the use of new technology. This means that a greater proportion of the total procurement to-delivery lead time is accounted for by transport and storage. Thus we see greater pressure for integrated distribution/logistics management.

1.6.2 The Customer Service Dimension

The above changes in the environment have moved logistics to center stage and, in turn, focusses the spotlight on customer service. Customer service is the thread that links the logistics and marketing processes because the end-product of the logistics system is customer service. The skill lies in managing the twin arms of marketing and logistics in such a way as to maximise the value added through customer service while seeking a cost advantage.

The role of customer service is to provide time and place utilities in the transfer of goods and services between buyer and seller. There is no value in a product or service until it is in the hands of customer or consumer. It follows that making the product or service available is what, in essence, the distribution function of the business is all about. However, 'Availability' is in itself a complex concept which is influenced by a galaxy of factors. These factors, for example, include delivery frequency, reliability, stock levels and order cycle time. Ultimately, customer service is determined by the interaction of all those factors that affect the process of making products and services available to the buyer.

Now-a-days, customer service has changed its dimensions to quick and easy availability of products with reduced inventory costs. Customers have started analysing cost of the product with lead time of suppliers and the inventory cost thereof. As such, low volume purchase, but with larger frequency, is increasing. A customer may ultimately buy a large quantity but at different intervals of time. Such service is only possible through a good network of warehousing and appropriate logistics management. In fact, today logistics management not only ensures the supply of product at lowest cost but also acts as a marketing tool for increased sales.

Check Your Progress B

1 List the major tasks of marketing logistics.

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2 State the important decision areas in respect of warehousing.

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3 Why do you consider physical distribution as 'the other half marketing'.

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4 Fill in the blanks.

i) The starting point of the physical distribution activities is the processing of.....

ii) The new concept of Just-in-time..... is increasingly becoming popular with many firms.

iii) Logistics costs account for a .....of the sales value.

iv) ..... of product life cycles create substantial problems.

v) Now a days.....service has changed its dimensions.

1.7 DOMESTIC AND INTER NATIONAL LOGISTICS

Difference between domestic and international logistics can be said to arise mainly on account of three major factors: (i) logistics cost is likely to account for a much higher proportion of the delivered cost of the product in international trade, (ii) the mechanics of doing business are much more complex in the context of international (than domestic) logistics, and (iii) the political, cultural and institutional factors connected with international logistics are of considerable importance whereas these are usually not of much consequence in the context of domestic logistics. Further, a generally more proactive than reactive approach is needed for the management of international trade logistics.

Logistics cost : Let us consider the cost aspect of international logistics. First it is useful to concentrate on the transport cost. Since, in quantitative terms, more than 90% of internationally traded cargoes still move by sea, we may look at sea freight. According to data published by UNCTAD, the sea freight borne by developing countries in 1988 as a proportion of the c.i.f. cost of imports was 8.89% as compared to only 4.40% for developed countries. Thus, developing countries bear a burden twice as high as that borne by developed countries in terms of transport cost. In fact, studies show transport cost to be a much more formidable an obstacle faced by developing countries than the tariffs. But, the percentages mentioned above are averaged for all goods and all distances and conceal a wide range. Sea freight can be as low as 1% or less (of the final product cost) in the case of pharmaceuticals and as high as 80% in the case of rough granite stones. In general it varies inversely with the level of processing (or value addition) embodied in the product. But to sea freight have to be added the inland transport costs at either end and, more important, the various other logistic costs. Then, often under estimated, are the

costs associated with inventory. At current interest rates the annual cost of holding inventories can run as high as 30% of its value. Similarly, least obvious, and often ignored, are the staff and computer costs of running the logistics system (also called non-physical handling costs) including the cost of forecasting demand, planning factory loading, processing and dispatching orders, cumbersome documentation requirements, seeking various permissions, etc.

Mechanics : The second difference is in the mechanics. Doing business with a foreign counterpart for the first time can be a daunting experience. For one thing it requires as lot of experience and expertise to be able to quote on a 'delivered' basis without a thorough knowledge of the procedures and regulations in operation in the concerned country.

Further, movements between countries are accompanied by many more documents than in the case of domestic shipments. A study showed that in India an export consignment required 48 hours of typing to fill out forms, 327 signatures were needed from the authorities and that the whole process took on average six weeks to complete. Add to this the delays occurring after the completion of these formalities at the inland cargo aggregation points, at the port, etc. It was estimated that for a typical intermodal shipment from Chicago to Munich, the total time required was 21 days of which the 'productive' time, viz., time spent actually in transit, was less than 40 %. Where developing countries are involved at either end (or both ends) of an international trade transaction, such delays at 'switching' points can account for an even greater proportion of total transit time, thus adding to the logistics costs. This explains that, for the businesses of developing countries engaged in international trade, the logistics cost can be an important factor in their competitiveness and profitability.

Political and cultural environment : The final group of factors is political and cultural environment. Where, in order to retain control over the distribution, an exporter quotes on 'delivered' basis he has to cover himself for a lot of uncertainty at the other end of the transaction, e.g., the extent of government control on foreign exchange transactions and on the banking system, the legal recourse available in case of damage or fraud, the roductivity/ efficiency of labour and capital in the other country, etc. Even insurance cover is seldom adequate to cover genuine losses in cases of mishap to cargo. All these factors can be lumped together in a category of 'unknowns' which necessarily come into play in a transaction of international logistics.

1.8 RECENT DEVELOPMENTS IN INTERNATIONAL LOGISTICS

Various developments in international logistics affecting both 'supply' and 'demand' sides have spurred the emergence of logistics as perhaps the most important plank of corporate strategy in the developed countries. The supply of logistic services can be seen in terms of a series of technology related, economic and political factors. In broad terms these can be summed up as (a) deregulation of transport services, (b) oversupply and fierce competition at a time of recession leading to a battle for survival in the transport industry most noticeably in world shipping, (c) amendments to legislation/statutory control encouraging greater privatization in the transport field, and (d) the introduction of faster, bigger and more efficient container ships.

One of the crucial facilitating developments in the field of international trade logistics on the supply side has been the emergence and the rise of 'containerization'. Over 90% of the general cargo traffic on some major world sea routes moves by container in specialized 'cellular vessels' constructed to optimize container loading space. Speed and efficiency of all links in the total transport chain are increased by movement of goods in containers. This reduces the number of handlings (reducing the handling cost as well as 'unproductive' time in transit), the packaging required, the possibility of damage to cargo and pilferage and, consequently, the cost of insurance. Because of successful international efforts to reduce the 'barriers' (caused by regulatory inspections and other procedural requirements) to container movement, containers have been able to penetrate farther and farther into the inland distribution system, thus helping to realize the advantages of international intermodal transport.

On the 'demand' (viz., trade) side, the various forces were at work have been : (a) unemployment recession and rising interest rates forced industry in the developed countries to seek new ways

to add value, (b) the fierce competition from Japan and the Far East forced European manufacturers to resort to new production methods involving global dispersal of manufacturing and 'outsourcing' of components, (c) increased trade in intermediates consequent on third country manufacturing (d) shorter product development time and smaller shipment size, and finally (e) increased product differentiation and trade diversification.

These factors governing the demand for, and supply of, expanded logistics services created new opportunities for carriers (especially deep sea) who expanded their activities horizontally (landwards) integrating with rail and road modes in order to offer 'value added' services to their customers. The newly found emphasis on 'just-in-time' or 'zero' inventory based manufacturing implied a great deal of effective control on the logistic element. Competition with Japan meant for the American and European manufacturers an equal ability to manage their logistics more cost effectively (e.g. by trading off higher transport costs against savings in inventory cost). What resulted from all this, in short, was nothing less than the integration of the transport function with production.

Let us now summarise the main trends which are likely to hold the field in international logistics in the near future.

First, there is a pronounced awareness of the importance of logistics as a strategic issue in gaining the competitive edge. Pressures from the market place have led to new importance being attached to timeliness, completeness, frequency and reliability of service. Indeed these are the most prized dimensions of customer service which, in turn, hold the key to competitive advantage.

Second, greater integration of 'inbound' logistics with physical distribution has been another development. This has become necessary particularly in mass assembly manufacturing where the ratio of input to output flows is as great as 3 or 4 to 1. Often the preference is to engage third party logistics contractors. Also manufacturers and such logistics contractors work closely in a spirit of partnership to achieve mutual gains.

Third, the proportion of logistics costs has become more significant due to (a) the dramatic reduction already achieved in manufacturing cost, and (b) companies trying to trade off logistic costs against competitive advantage. This fact also means that managements must try hard to make a dent on these costs by focusing upon the key variables.

Check Your Progress C

1 State the three factors that distinguish domestic logistics from international logistics.

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2 List the developments in international logistics which have made physical distribution the most important plank of corporate strategy in the developed countries.

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3 State whether of the following statements are True or False.

i) Studies have shown that transport cost is much more formidable an obstacle faced by developing countries than the tariffs.

ii) Movements between countries are accompanied by a variety of documents.

iii) Speed and efficiency of all links in the total transport chain are decreased by movement of goods in containers.

iv) The emphasis on just-in-time inventory based manufacturing implies effective control on logistics.

v) The new dimensions of customer service hold the key to a competitive disadvantage.

1.9 ROLE OF INFORMATION TECHNOLOGY

The logistics information system (LIS) is a subsystem of the management information system (MIS). It provides the information that is specifically needed for logistical management at four levels.

First, the lowest level of the pyramid refers to transactions and inquiries. Examples of these activities are order inquiries, order processing, stock status checks, bill of lading preparation, and transportation rate look ups. Such interactions with the system occur as frequently as many times an hour, and speed of the information flow is highly important. Operative personnel such as order-processing and transportation-rate clerks are typical users at this level.

Second, the next higher level use of the information systems involves first line supervision. Warehouse supervisors must exercise control over space control over space utilization, inventory, and labour productivity in order-filling operations. A truck-fleet manager must have the necessary people, equipment, and spare parts to accomplish the transportation mission and schedule deliveries. The need for information in the form of status and planning reports that are generated almost everyday.

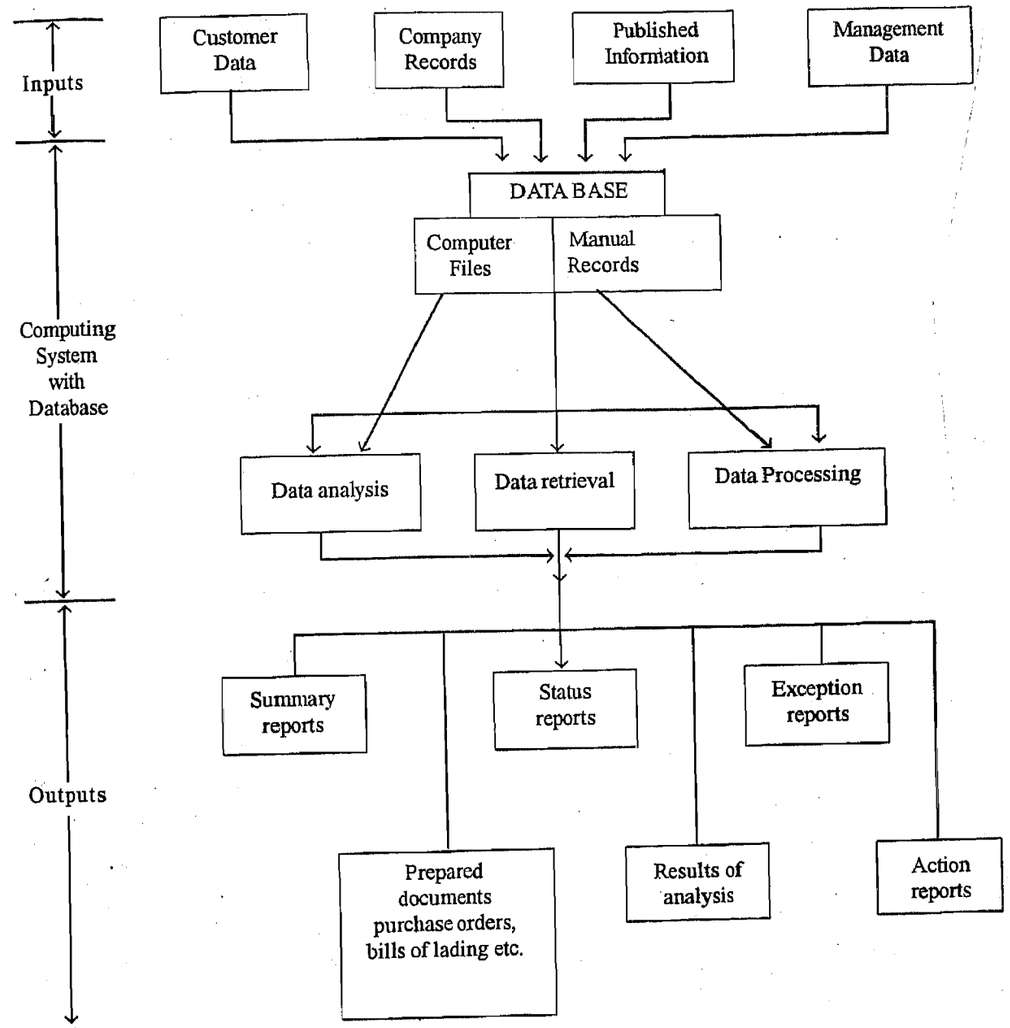
Third, tactical planning and control is an extension of management at supervisory level in that it concerns planning that is often repeated in less than one year. Evaluation of inventory control limits, supplier evaluation, carrier selection, planning warehouse layout, and planning for seasonal space and transportation needs are examples of technical planning and control problem. These tasks can frequently involve middle management such as the manager of physical distribution or manager of transportation.

Finally, strategic (long-range) planning involves setting the goals, policies and objectives, deciding on the overall logistical structure and determining the resources needed for the supply distribution task. Speed of information availability is rarely critical, and the information system is interrogated infrequently. Manual procedures and off line computer storage of the necessary information usually prove satisfactory for this level of planning.

1.9.1 Features of the Information System

Manual and computerized systems are basically the same. A good system design supports the management uses. The basic features of an integrated information system are identified in Figure 1.2. These features are reflection of the basic functions that the information system performs such as transferring, storing and transforming information. The information system must have the capability of moving information from the points where it is obtained to the points where it is needed.

Figure 1.2 Basic Features of a Logistic Information System



1.9.2 System Design

For logistics information system, it is necessary to have appropriate data base, data retrieval procedures, data processing programme and data analysis. Data for logistics management comes from different sources and in different forms which is recorded manually and in computer files. Appropriate decision for the methodology of data storage, retrieval and criticality of the information should be decided.

It is the data storage and processing for which modern sophisticated computer hardware is used to assist the organization for decision making. Data analysis system helps the management to correlate production schedule at different plants, to meet customers requirement at different locations, provide service to customers, built up inventories, reduce stock, transfer stock from one warehouse to another warehouse, monitor customer's payment, dispatch goods considering inventories, fleet management, warehousing cost, transportation cost, operating cost, etc.

1.9.3 Current Information Technology Applications in Distribution

Information technology has a major role for successful logistics management, the principal applications in distribution are :

Sales Order Processing and Invoicing : Many distribution operations serve highly competitive market. Hence, it is essential that the information about sales order is transmitted by sales office to the distribution department in an efficient manner for dispatch. Information technology plays a key role in the controlling the order cycle, dispatch and raising invoice by accounts for customers. Information technology also helps accounting for necessary controls over payments from different customers.

Warehousing and Stock Control : Integration of stock records, sales order processing, replenishment of stocks and locations of different products at different warehouses are controlled through it. It helps in transfer of stocks from one location to another to reduce inventory and provide customers services in cost effective manner. It also helps in providing the exact information about delivery schedule, and a multi product company at multi-location is able to quickly initiate steps for correlating production and customers requirement

Fleet Management : Information technology assists in vehicle routing, scheduling, fleet management, computerized round planning is used to evaluate, distribution, fleet mix, provide costing to evaluate alternative distribution networks. Successful implementation of computerized round planning system realize on accurate and timely information about order processing, cost control, order consolidation, distribution constituents like access restrictions, lunch time closing, etc.

1.10 LET US SUM UP

Management of logistics of distribution is as important as any other activity of marketing. This involves planning, implementation, and control of physical flows of materials and final products from the points of origin to the points of use in order to meet customer needs at a profit.

Broadly speaking, the basic objective of an ideal system of logistics is to move the right goods, to the right place, at the right time in good condition, and at the lowest possible cost. This implies that a firm should aim at having a logistics system which ensures the desired level of customer service at the lowest possible cost. Some of the other specific objectives in a given marketing situation, however, are: (1) improve the customer service (2) reduce total distribution costs (3) generate additional sales (4) create time and space utilities, and (5) stabilize prices of products.

An effective logistics system contributes immensely to the achievement of marketing objectives of a firm. By ensuring quick delivery in minimum time and cost, it relieves the customers of holding large inventories. On the global scale, it allows a geographical region to exploit its inherent advantage by specializing in its production efforts and provide goods at competitive prices.

The important components of an effective system of logistics are : (1) order processing, (2) warehousing, (3) inventories, (4) transportation, and (5) information system. Order processing involves procurement and assembling ordered goods for dispatch to the customer. Warehousing involves providing necessary storage facility at appropriate locations for convenient delivery and dispatch. Inventory decisions are based primarily on the demand patterns of various products. A correct prediction in this regard helps in minimizing the inventory costs. As regards transportation, the firm has to constantly evaluate different modes of transportation so as to ensure safe delivery at reasonable cost. Proper information system is required for ensuring a continuous flow of data on all aspects of the logistics system.

Traditionally, the physical distribution is considered as 'the other half of marketing'. The marketing experts have recognized that superior logistics performance acts as a major source for developing a position of sustainable advantage. It is contended that instead of viewing distribution, marketing and manufacturing as separate activities within the business, they should to unified, particularly at the strategic level. It is further emphasized that the twin arms of

marketing and logistics should be so managed as to maximize the value added through customer service at lowest cost.

It is observed that management of international logistics is much more complex than the domestic system because (i) the logistics costs are higher, (ii) the mechanics of the system are too intricate involving numerous permissions, documents and middlemen, and (iii) the political cultural and institutional factors also play a role. This requires a proactive approach. Moreover, a variety of recent developments affecting both supply and demand of logistic services have made it the most important plank to corporate strategy in the developed countries, have expanded logistics services, created new opportunities for carriers, and laid more emphasis on just-in-time inventory and the integration of the transport function with production.

The information technology also plays an important role in management of logistics system. Logistical information needs can be divided into four levels, viz., transactions and enquiries (order processing and transportation), first line supervision (control over space utilization, inventory and labour productivity), tactical planning and control (evaluation of inventory control limits, carrier selection facilities, planning warehousing), and strategic planning (goals, policies and objective). An efficient management of information system would be of immense use in controlling costs, improving services and determining the overall effectiveness of the distribution system of the firm.

1.11 KEY WORDS

Containerisation : Placing the goods into containers ensuring the carriage of goods by one or more modes of transport without intermediate de-stuffing and stuffing of container.

Inter-modal transport : Movement of international containerized freight from a shippers premises to consignee's warehouse using different modes of transport enroute.

Inventory : The stock of goods

Just-in-time concept : Supply of goods to a production line, a warehouse, or a customer just as they are needed by maintaining zero or little inventory

Landed Cost : Production plus logistics cost.

Lead time : Time gap between placing the order and receiving the supply

Marketing Logistics : Process of physical flows of materials and final products from the point of origin to the point of use. It involves activities such as order processing, warehousing, inventory control and transportation.

Vendor appraisal system : A system of ascertaining the strengths and weaknesses of suppliers for selection of the supplier.

1.12 ANSWERS TO CHECK YOUR PROGRESS

A 4 (i) False (ii) True (iii) True (iv) False (v) True (vi) False

B 4 (i) Customer's order (ii) inventory (iii) major proportion (iv) shortening (v) customer

C 3 (i) True (ii) True (iii) False (iv) True (v) False

1.13 TERMINAL QUESTIONS

1 Define Marketing Logistics and explain its objectives.

2 What are the main activities involved in marketing logistics? Explain them briefly.

3 Why do you regard logistics as an important activity of marketing? Explain it with special reference to international trade.

4 "Difference between domestic and international logistics can be said to arise on account of three major factors." Elaborate on this statement and enumerate the recent developments in international logistics that have made it an important plank of corporate strategy.

5 In the context of trade liberalisation policies in India, examine the importance of

a) domestic logestics

b) international logistics

6 You are free to purchase tea, process and back it, and export it to a buyer in U.K. Plan logistics set up right upto the consumer.

7 Comment on the following statements.

a) Traditionally, physical distribution is considered as the other half of marketing.

b) Distribution, marketing and manufacturing can not be viewed as separate activities within the business, particularly at the strategic level.

c) Logistics system helps in improving the customer service.

8 State the four levels at which logistics information is needed and explain the main features of an integrated information system.

UNIT 2 INTERNATIONAL MARKETING STRATEGIES AND LOGISTICS

Structure

2.0 Objectives
2.1 Introduction
2.2 Customer Service
2.3 Strategic Logistics Planning
2.3.1 Major Aspects of Strategic Logistical Planning
2.3.2 Factors Influencing Logistics Planning
2.4 Strategic Distribution Arrangements
2.5 The Three Important Concepts
2.5.1 The Cost Trade Offs
2.5.2 The Total Cost Concept
2.5.3 The Total System Concept
2.6 Environment of Foreign Trade
2.6.1 Nature of International Distribution
2.6.2 Competition
2.6.3 Government Regulation
2.6.4 Other Relevant Aspects
2.7 Challenges of the Market Place
2.8 Balancing Functional Objectives
2.9 Integration of Systems Functions in International Supply Chains
2.10 Let Us Sum Up
2.11 Key Words
2.12 Answers to Check Your Progress
2.13 Terminal Questions

2.0 OBJECTIVES

After studying this unit, you should be able to :

- explain the expectations of customers from the physical distribution system
- describe the framework for strategic logistics planning, its three major aspects, and the factors that influence it
- explain the strategic distribution arrangements
- describe the three basic concepts relevant to managing physical distribution of products
- explain the peculiarities of foreign trade environment that force logisticians to adopt a different approach to physical distribution in international marketing
- identify the conflicting functional objectives of logistics system and describe the strategy used for balancing them.
- explain the horizontal and vertical integration of systems functions in international supply chains.