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.

2.1 INTRODUCTION

You have learnt about the concept, objectives and the various components of marketing logistics, and that superior logistics performance acts a major source for developing a sustainable advantage. You have also learnt that management of international logistics is more complex than the domestic logistics and there have been various developments affecting both supply and demand of international logistic services which have made it the most important plank to corporate strategy in the developed countries. However, the logistics systems operate differently in different countries due to the peculiarities of demand, competition and government regulation. In this unit, you will learn about these environmental factors, significance of customer service, strategic logistic planning and distribution arrangements, different approaches to management of marketing logistics, and the integration of systems functions in international supply chains to meet successfully the challenges of the market place.

2.2 CUSTOMER SERVICE

You know that meeting the distribution demands of customers is the key requirement for the successful operation of a physical distribution system. Hence, it is vital for distribution companies to formulate an appropriate customer service policy. Customer service is, however, rarely one dimensional in character. Most often, it consists of different distribution related attributes. A typical list of these include product availability at convenient locations, the timing of deliveries, the cost of deliveries and the condition of goods upon their delivery.

The various components of a physical distribution service may be expressed in the following terms:

1 Availability of stock

2 Order cycle time

3 Frequency of delivery

4 On-schedule delivery

5 Reliability of delivery

Taken together, the above components are responsible for giving distribution a particular customer service profile. It is, therefore, pertinent to consider each component to establish its contribution to this profile.

Availability of Stock : The most frequently used measure of customer service in physical distribution management is stock availability. There are potential savings to be achieved in manpower, buildings, handling equipment, administration and inventory financing costs through centralization. Centralisation will often mean that companies can maintain, or even increase, stock availability while total distribution costs stand reduced. In fact, easy availability of products not only assist in customer service but also increase the sale.

Order Cycle Time : Order cycle time is the elapsed time between a customer conveying his need and that need being satisfied. It is wrong to regard order cycle time simply in terms of the time interval over which the supplying company chooses to excise direct control. It follows that order cycle time has three time intervals, namely, (i) the inbound order communication, (ii) the order processing as well as the preparation and dispatch of goods, and (iii) the outbound transportation of the goods. If the order cycle time is to be shortened, then one or more of those time intervals must be reduced correspondingly. This could lead to reduced costs and efficient resource utilization.

Frequency of Delivery : While the timing of delivery is important to many retail customers, the frequency of delivery can also be a key consideration in customer service. Many retail outlets, as of now, have little or no stockroom capacity. As a result, large consignments cannot be readily accommodated.

On-Schedule Delivery : As distribution has become increasingly retailer-driven, meeting the delivery requirements of retailers has become of paramount importance. In particular, on-schedule delivery is now an integral part of many distribution operations serving the retail sector. On-schedule deliveries do impose costs on the distributor especially when a delivery service is offered to more than one client. However, the distributor will be attempting to meet a number of booked deliveries, all set independently of one another. As a result, delivery schedules will become complex and vehicles underutilised. It is reasonable to expect the distributor to recover the cost of meeting on-schedule deliveries from the clients who impose them.

Reliability of Delivery : Regular delivery not only satisfies customer service requirements but also benefits the distributor as distribution planning becomes relatively simple. In particular, there is scope for grouping calls on a geographical basis with all deliveries, the simplicity of the arrangement has a certain appeal for the distributor and will help reduce some costs. Vehicle routing and scheduling, for example, will be less complex and, therefore, less costly. However, there is also the risk of inefficiency in some areas of distribution operations.

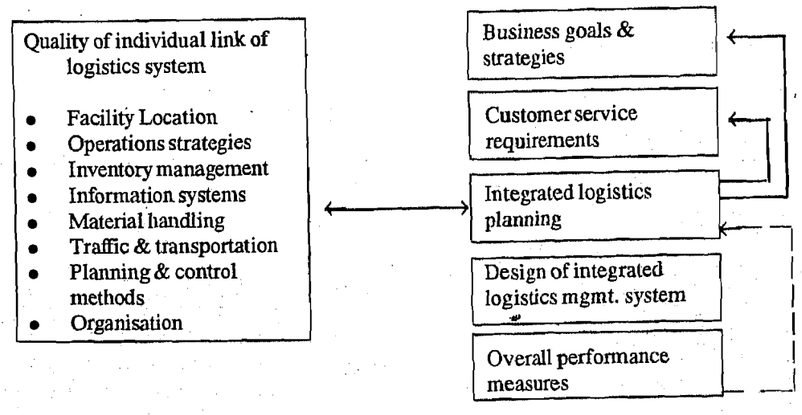
As a consequence of the above customer service considerations, the management must identify the cost of providing different levels of service to customers and inform them of what it costs to provide a given level of the customer service and to ascertain whether, in view of these costs, they could change any aspect of the customer service. This may ultimately lead to fix realistic norms of customer service level to be achieved and build up suitable strategies for its attainment.

2.3 STRATEGIC LOGISTICS PLANNINGS

Strategic logistics planning includes both manufacturing and physical distribution. You know that manufacturing involves a set of decisions that include such things as the degree of vertical integration, the number, size and location of the manufacturing facilities, the process technology to be used, the type of production plan that will be followed, which products are going to be produced and which are going to be purchased and so on. Physical distribution planning, on the other hand, involves a different set of decisions such as the location of warehouses, the level of inventories to be maintained, transportation mode to be used, carrier selection and strategy, planning and control issues, organizational issued, and so on.

Figure 2.1 outlines the framework for strategic logistics planning. It begins with identification of the business goals and strategies (a key element of which are the customer service requirements) and proceeds with integrated logistics planning which looks at the quality of each link of the logistics systems. The quality of each link or component of the logistics systems is examined not only individually but also as they function as part of an integrated whole.

Figure 2.1 : Framework of Strategic Logistics Planning



2.3.1 Major Aspects of Strategic Logistics Planning

Strategic logistics planning primarily involves (a) leveraging logistics, (b) evaluating the impact of proposed corporate strategic plans, and (c) supporting the corporate strategic plan. Let us take them up one by one.

Leveraging logistics : In performing strategic logistics planning, companies often look for ways to leverage logistics. This means that companies address themselves to the basic question of how can logistics be used to provide a distinctive and competitive advantage? Rather than focusing on ways to make the existing system more efficient, a company which is leveraging logistics should address itself to the question of how it can meaningfully distinguish itself through its physical distribution capability.

Evaluating Impact : The second aspect of strategic logistics planning is evaluating the impact of proposed corporate plans. This involves participation in the corporate strategic planning process by the physical distribution executives. Physical distribution managers should assist in developing as well as evaluating the corporate strategic plans. As part of the strategic planning process, the distribution executive should pose such questions as whether the marketing advantage gained by producing a full product line is worth the cost of making and carrying the full product line, or whether the competitive advantage of superior customer service is worth the cost of doing that?

Supporting the Corporate Strategic Plan : The final aspect of strategic logistics planning involves supporting the corporate strategic plan. Once a corporate plan is articulated and agreed upon, this aspect of strategic logistics planning involves developing a plan for the logistics area that supports this corporate plan and allows the functional area to perform in the most efficient manner possible.

2.3.2 Factors Influencing Logistics Planning

One of the main factors influencing logistics planning is the demand for improved customer service. In many industries, and for many companies, product quality is becoming a more important basis of competition. An important element of product quality is quality customer service. In fact, many customers are demanding better customer service. They are concerned with many dimensions of customer service and are measuring customer service in more sophisticated ways. At the same time, there has been a proliferation of new products in many companies, shorter product life cycles, and more complex delivery patterns. These influences make customer service a more complex an activity for a company.

In addition to customer service, physical distribution involves a significant cost element for most companies and can thus have a large impact on a company's return on investment and its overall performance. Not only that, the relationship among transportation, warehousing and inventory costs is changing and companies have to adjust their logistic system accordingly. Other factors influencing logistics include (i) the need to improve financial performance, (ii) the proliferation of new products, (iii) shorter product life cycles (v) more complex logistics networks and delivery systems, (vi) and a change in the strength and the role of players in the distribution channels.

Logistics variables and costs interact in a complex and indirect way. A cost decrease in one area can influence a variety of other logistics cost. This entire set of complex interactions must, therefore, be examined together in a systematic way. Then, there are organizational conflicts that make logistics planning difficult. Responsibility for many logistics activities is spread through the organization. Different organizational functions have different interests and these create conflicting objectives and requirements for a logistic system.

2.4 STRATEGIC DISTRIBUTION ARRANGEMENTS

Goods offered for sale continue to remain the responsibility of a logistician till the buyer takes their possession. However, he may decide to retain them at the plant warehouse, ship them to a field warehouse or ship them directly to a customer. Thus, the logistician has many strategic

distribution arrangements that can be employed. Three of these are : (1) direct shipments from plant inventories, (2) direct shipment from vendors of the production line, and (3) shipments through a warehousing system. When customers buy in sufficient quantities to take full vehicle loads, shipments to them are made directly from vendors' plant stocks or the production line as transportation rates are lower when full vehicle loads move to single customer locations. This method of delivery provides the lowest total transportation cost. Vendors supplying raw materials to other companies or large buyers typically use direct bulk shipments unless the product is purchase in small quantities. In case of finished goods, which are usually purchased in small quantities, distribution can be handled most economically through the network of warehouses, and direct shipments are limited only to the large customers.

However, to suggest logistics just as a choice between the few basic alternatives is too simplistic. In fact, the logistician has to consider many other aspects such as location of warehouse, control procedure, transportation services, customer services level or order communication. These, and many more, have to be dealt with before the physical distribution system is in an efficient and functioning order.

It may be noted that the management of physical distribution involves (1) strategic planning, (2) tactical planning and (3) Operational activities, and it is carried out at three levels.

Strategic planning : What should our distribution system be? This involves location of the warehouses, selection of the transportation modes, and designing of the order-processing system. Strategic planning shapes the distribution system only in broad terms.

Tactical planning : Physical distribution management at the tactical level relates to resource utilisation. In many respects, it is short-range planning. When a firm invests in some part of the distribution system such as trucks, warehouses, order transmitting equipment, or materials-handling equipment, there is the problem of using this owned equipment and these facilities efficiently. This is a tactical problem. Careful planning of distribution flows on a routine basis (often on a daily basis), management attempts to achieve the highest utilisation possible.

Operational activities : Operational management refers to the daily tasks that a distribution manager and the subordinates perform in order to ensure that the product moves through the distribution channel on to the ultimate consumers. This includes such activities as picking product from warehouse stocks, loading trucks for delivery, packaging product for shipment, keeping track of inventory levels, preparing stock replenishment orders, etc. The focus of this aspect of distribution management is mainly supervision and task accomplishment.

Thus, the top management's job involves strategic planning. The middle management is involved in tactical planning, and the supervisory personnel are involved in operational activities.

Check Your Progress A

1 What are the various components of logistics service from customer's point of view?

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2 What do you understand by strategic logistics planning?

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3 List the three strategic distribution arrangements and explain their suitability.

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4 State whether the following statements are True or False.

i) Customer service is rarely one dimensional in character.

ii) It is not considered proper to recover the cost of meeting on schedule deliveries from the customers.

iii) Strategic logistics planning covers both manufacturing and physical distribution.

iv) Logistics variables and costs of interact in a simple and direct manner.

v) Top management's job involves tactical planning aspect of logistics management.

2.5 THE THREE IMPORTANT CONCEPTS

Strategic distribution is quite a complex problem. However, there are some basic concepts that can helping effective management of physical distribution of products. These are : (1) The Cost Trade Offs, (2) The Total Cost Concept, and (3) The Total System Concept.

It was the recognition of these important principles that led to the regrouping of logistics activities as they are currently defined and which represent capstone ideas for physical distribution management.

2.5.1 The Cost Trade Offs

The most commonly stated objectives of the physical distribution management in a firm are to minimise the cost of distribution and maximise the services provided to the customers. However, it is not possible to simultaneously maximise customer service and minimise the distribution cost. Maximum customer service implies large inventories, faster transportation, and best possible warehousing services. All of this would add to the cost of distribution. On the other hand, minimising the cost of distribution would mean using cheaper and slower transport, fewer warehouses and keeping lower level of inventories. This would, of course, bring down the cost of distribution but, at the same time, it may bring down the level of customer service also. Thus the firms have to strike a balance between these two aspects. To do that, they have to first set the level upto which they would extend service to the customers.

The traditional approach of management treats all components of logistics as independent of each other. For example, the decision regarding transportation can be taken independently of the decision regarding inventory or storage. Thus, according to this approach, the cost of distribution can be minimised by keeping the cost of each of these elements at a minimum level. However, a closer examination of the situation reveals that the costs of each of these elements cannot be minimised without affecting the other elements as these activities often have conflicting and even diametrically opposite goals. For example, as the number of warehouses is increased, transportation costs decline. On the other hand, inventory and order processing costs show the opposite pattern to transportation costs and are, therefore, said to be in conflict with them. To make a decision as to the number of warehouses, the logistician tries to balance or trade-off the conflicting costs. It is the recognition that the cost patterns of various activities of the firm sometimes display characteristics that put them in economic conflict with one another, and the cost trade off approach may often help in achieving the lowest cost of the distribution system.

2.5.2 The Total Cost Concept

The total cost concept and the cost trade-offs go hand in hand. Total cost concept is the recognition that conflicting cost patterns should be examined collectively and balanced at the optimum. It was recognized that managing transportation, inventories and order-processing activities collectively could lead to substantial cost reduction when compared with managing them separately.

The total cost concept envisages the use of total cost (and not the cost of each individual component) while choosing the alternative course of action in respect of the physical distribution of the products. In case total cost is not analysed, there is every likelihood of taking a wrong decision. This is explained with the help of an illustration presented in Figure 2.2.

Figure 2.2 : Physical Distribution Costs under Alternative Concepts.

Physical Distribution Costs	Alternative A (Road Transport)	Alternative B (Rail Transport)
	Rs.	Rs.
Interest on working capital employed in inventory	100	150
Transportation cost	230	200
Warehousing cost	100	130
Total Cost	**430**	**480**

As shown in Figure 2.2, if the decision regarding choice of the mode of transportation is taken independent of the other components of cost, rail transport (Alternative B) would be selected as the cost in this case is Rs. 200, as compared to the road transport (Alternative A) where it is Rs. 230. But if we prefer rail transport, the cost of other components (interest cost and warehousing cost) increases. We can see from the data that the total cost in case of Alternative A is lower than that of Alternative B. Thus, if the total cost is taken into consideration, Alternative A will be selected as it is less expensive.

From this illustration it is clear that a reduction in the cost of one component may be possible at the expense of the other element. If the transportation cost is reduced, the cost of warehousing and that of inventory go up. Therefore, in any attempt to improve the physical distribution efficiency and reduce cost, the total cost of performing the physical distribution functions should be taken into account. Management should think in terms of trade off in reducing alternative costs so as to maximise the profits. By doing this, the firm can maximises the potential profit.

2.5.3 The Total System Concept

The total system concept is an extension of the total cost concept and is probably one of the most commonly used approach. It looks at the physical distribution in its total form as a system consisting of several interconnected tasks or parts operating together to achieve the given objectives. It represents a philosophy for distribution management that considers all those factors in a decision that are in some way affected by the outcome of the decision. Thus, the systems concept of physical distribution envisages integration of all the components of physical distribution as parts of a whole whose market impact is maximum when they operate in synergy. In other words, it is looking at the managing distribution activities as an integrated exercise in which decisions in respect of different components are taken not in isolation of one another but as a whole.

Thus, the total system approach is to look broadly at the distribution problem in order to uncover relationships that, if neglected, could lead to suboptimal decisions. This approach is

particularly important to logistics because much of logistics management interfaces with other functional areas within, and beyond, the legal boundaries of the firm.

Check Your Progress B

1 Explain the concept of 'Cost Trade Offs' in the context of logistics management.

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2 Distinguish between 'total cost concept' and 'total system concept'?

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3 Fill in the blanks.

i) Actually it is.....to simultaneously maximise customer service and minimise the distribution cost.

ii) The Cost trade offs approach .....in achieving the lowest cost distribution system.

iii) The total system concept is an extension of the .....concept.

iv) The total system concept envisages.....of all components of physical distribution.

v) Total cost concept recognizes the need to examine conflicting cost patterns .....and balance them optionally.

2.6 ENVIRONMENT OF FOREIGN TRADE

The logistician must contend with many peculiarities of demand, distribution, competition and government regulation that differ from one country to another. These constrain the logistics system design generally to fewer choices than are domestically available and, at the same time, they force the logistician into operating the logistics system in a manner different from domestic operations for the same product.

2.6.1 Nature of International Distribution

What sells well in one country may have no market just across the border. Such conditions create geographical discontinuities in demand that make worldwide distribution more costly relative to domestic distribution. The distribution channels also vary significantly from country to country. Not all foreign countries are equally endowed with the tools of distribution. Many developing countries have little warehouse space available for general commodities and even less for specialized purposes. The same contrast applies to transportation and communications systems. Not only that, even among the well developed countries, there may be a different balance among the alternatives for distribution.

2.6.2 Competition

Competition is no less important a consideration in many foreign markets. Product availability and distribution costs as reflected in product prices are major concerns for the logistician.

First, the logistician may develop familiarity with the cultural differences that affect product demand. Then, he must be acquainted with the buying behaviour of customers. Inventory-stocking policies, choice of transportation and order-handling procedures are all influenced by buyer behaviour patterns such as (a) frequency of customers purchase, (b) the typical size of their purchases, (c) the patience of customers in having orders filled, (d) their loyalty to a particular brand if it is not available when desired, and (e) the mode by which they expect delivery of the product.

Retailers and wholesalers in less-developed countries often do not have the capital available to maintain adequate inventories. As a result, manufacturers must plan for more inventory in the distribution channel than they would normally expect for a given sales volume. Similarly, manufacturers producing in certain countries and selling abroad usually experience longer supply lines and more uncertainty in meeting supply requirements as compared with the competing firms located in the market country. The length of supply lines, along with slow transportation, results in larger amounts of inventory in transit. This would be more true of foreign market as it has to meet uncertain demand levels. The disadvantage of more expensive distribution can often be overcome by establishing production facilities in the market country.

2.6.3 Government Regulation

The logistician who is planning or operating an international logistics systems will have to deal with a vast number of legal regulations by governments that vary from democracies to dictatorships. These regulations can effect all aspects of distribution, ranging from packaging, marketing and documentation to the location of warehousing and manufacturing facilities. The latter are more generally affected because governments seek to satisfy their own interests in such areas as employment, industrial growth, uses of raw materials, and the acquisition of wealth.

2.6.4 Other Relevant Aspects

Besides the general environment of international distribution, there are some other aspects of international trade that should not be undermined. These are : (1) documentation, (2) trade zones, and (3) freight rates.

Documentation : For any company actively involved in foreign trade, the increased documentation requirement is a commonly heard complaint. Handling the amount of documentation required for international shipments can be a burden for even companies with sophisticated logistics management.

Trade Zones : Heavy tariffs, duties and taxes that governments place on imported goods often prove a hurdle to the exporter. Trade zones, or free ports, eliminate this disadvantage for the benefit of both the exporting and the importing country. There can be numerous advantages to the logistician responsible for international goods movement. The important advantages of foreign trade zones are:

1 Imported goods may be left at zones for storage, manipulation, assembling, order processing, manufacturing, and other services and shipped out of the zone to another country without customs formalities or control.

2 Duties are paid on foreign goods in the trade zones only when they enter the customs territory of the importing country.

3 Imported goods that are improperly marked for entry into the domestic market can be remarked at trade zones, thus avoiding unnecessary penalties.

4 Goods may be repacked into smaller or larger quantities.

5 Goods that undergo shrinkage due to spoilage, evaporation, or damage will not attract duties on the amount lost

6 Sometimes, savings can be made by shipping goods to the zone in disassembled form and assembling them in the zone.

7 The capital tied up in duties and bonds can be released for more profitable uses when products that use duty-subject foreign materials are shipped to the trade zones and held until foreign buyers are found or buyers are ready for delivery.

8 Importers may obtain priviledged foreign status whereby duties are frozen against future increase.

9 Manufacturing conducted in trade zones incurs duties only on the imported materials and component.

Duties, quotas, and other restrictions and costs placed on the exporter or importer by governments are real concerns to the logistician. However, the trade zone is a key link in the logistical channel for minimising movement cost and for providing potential customers with service levels that are competitive with domestic products. Not only that, the trade zone is a forward base of production and storage that can reduce the impact of long lead times and help to match the costs of production, distribution and foreign sales more closely with the revenues from these sales.

Transportation : Managing transportation for international goods movement that results from growing international trade creates new problems for the logistician. International shipments often originate in the interior of one country and have a destination in the interior of another. The logistician may have to deal with various transporters and several freight classifications and tariff schedules. The liability of a carrier in international movement is quite different from that of domestic carriers. In fact it is much less for the international carriers.

2.7 CHALLENGES OF THE MARKET PLACE

To appreciate the urgency in the move toward adoption of new approaches to logistics, there is need to look beyond the current economic and competitive environment. Within the macro economic sphere, the cost of capital stands out as a major concern. Economic uncertainty and, in particular, the swings in and out of recession are, by themselves, problematic from the view point of planning. The natural inertia of the supply chain itself and of its decision-making mechanisms magnifies the impact of such changes, producing major inventory surpluses or shortages in sharp succession. The overall cost implications of increased performance in the distribution and marketing functions may be overshadowed by the desire to enhance the firm's competitive position through greatly increased customer service.

Competitive pressures and changes in the economic climate have forced management of international companies to evaluate afresh the operation and structure of international supply chains. Earlier mission of logistics was atleast clear i.e., balancing inventories between both production capacity and the demand of customers service. To support marginal increases in customer service, companies incurred double or even higher costs in order to build inventories but, with more intensive competition in slow-growth markets combined with the rising costs of other production and supply factors, many firms can't afford not to supply a level of service that gives them a competitive edge. In fact, the traditional approach of seeking trade-offs among the various conflicting objectives of key functions - purchasing, production, distribution and sales, no longer worked very well. Not only that, the classical approaches to logistics have left companies vulnerable to change. In case of an international company this vulnerability is magnified even more than what is applicable to the local production and distribution. Periodic economic swings are inevitable and increasingly dangerous in many business sectors. However, companies themselves generally increase their vulnerability by inducing unreal business cycles and even further amplify them by localized protective policies. A company's vulnerability can be considered in a dual context, the context of its external placement in a global supply chain and the context of its internal supply system. The effects of change in the external context are amplified in the company's internal system. External and internal vulnerability are, therefore, serious threats to international operations today. At their worst, they are the principal contributors to the performance in the chain that management wants to correct. This results in

an inadequate customer service, high working capital investment and excessive supply costs. Thus, objectives and policies for functioning of the supply chain are usually in conflict both within and across the operational units. Effecting a strategic balance reduces the system complexity and also the excessive investment in inventory and capacity.

2.8 BALANCING FUNCTIONAL OBJECTIVES

The conflicting objectives of marketing, sales, manufacturing, and distribution are a fact of business life. The imbalances resulting from these conflicts have become almost structural in nature and traditionally have been bridged by inventory. It is not necessary to challenge the direction of the individual strategies of each of those functions. What is needed, is a critical evaluation of the opportunities for trade-offs between the key elements of these strategies with significant cross-functional implications such as (a) the demand characteristics, and reliability and responsiveness implications of the marketing strategy; (b) the lead time, flexibility, minimum run size, and change over implications of the manufacturing strategy, and (c) the variety, range, and likely demand implications of the product strategy.

Diagnostic studies for international companies have shown that key functional strategies affecting logistics are indeed negotiable. It may be possible, for example, that delivery reliability to customers can, in some instances, be traded against lead time. A 99% reliability on a four-week lead time is frequently more acceptable to customers than 85% - 90% reliability on a two week lead time. Moreover, such supply policies are usually negotiable by individual item based on relative volume or price.

The tendency of manufacturing executives to use the longest procurement time for materials as the basis for quoting standard lead times can be challenged just like the attempts to protect manufacturing costs of batch sizes, particularly in times of low demand. As a consequence, the failure to achieve a balance of objectives at the strategic level will tend to put the burden on inventories which may result in greater working capital requirements and increased costs.

Check Your Progress C

1 State the behavioural patterns of buyers that can influence the logistics activities.

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2 How is international logistics system influenced by the Government regulation of a country.

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3 State whether the following statements are True or False.

i) The distribution channels vary from country to country.

ii) Managing transportation in international trade creates a variety of problems for the logistician.

iii) Traditional approach of seeking trade offs among the various objectives of key functions no longer works well.

iv) Objectives and policies for functioning of the supply chain are usually in conflict both within and across the operational units.

v) The key functional strategies affecting logistics are not negotiable.

vi) The failure to achieve a balance of objectives at the strategic level tends to put the burden on inventories.

2.9 INTEGRATION OF SYSTEMS FUNCTIONS IN INTERNATIONAL SUPPLY CHAINS

International supply chains place great obstacles in the path of information transfer. The local autonomy, local systems standards and incompatible operating procedures make integration of international systems rather difficult. Hence, the systems and information flows need a degree of horizontal as well as vertical integration in an international supply chain.

The horizontal integration requires :

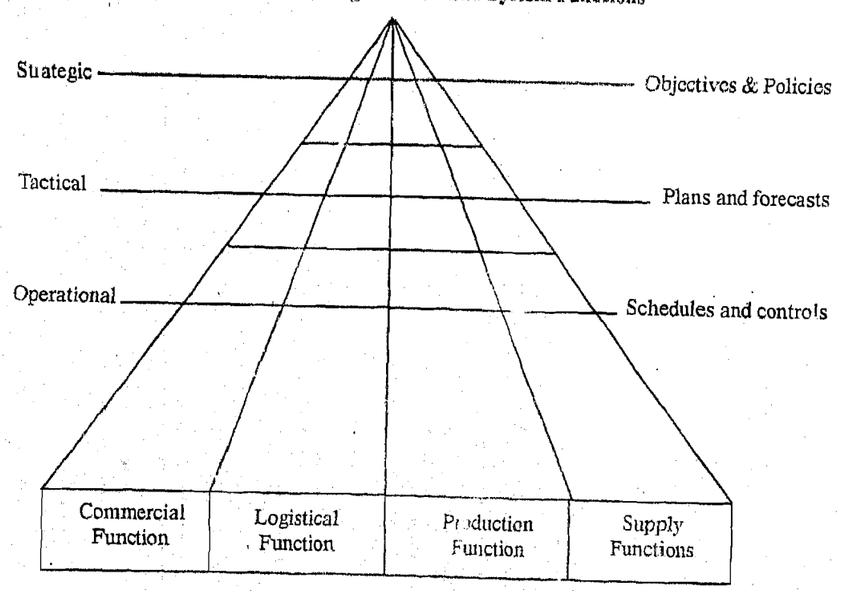
1 Management of data capture and flow across the functional boundaries without delay and distortion.

2 Linking systems for purchasing, production and inventory control, distribution, customer order entry, and service.

3 Shared ownership of international and high degree of visibility across all functions of plans, allocations, inventories and customer as well as replenishment orders.

Equally important to supporting effective international supply is the notion of vertical integration. Three discrete levels of management control viz., strategic, tactical and operational, are often employed in the successful model for the international chain. The overall structure is shown schematically in the Figure 2.3.

Figure 2.3 : Integration of and System Functions



There can be no doubt that adopting a holistic approach to the management of international supply chain places additional burden on the top management. It requires the incorporation of a logistics focus into the strategic decisions of the business. It demands the rejection of inventory as the easy 'buy-out' option to many of the troublesome balancing and trade-off decisions. It implies an approach to control systems which supercedes the traditional functional divisions and which is likely to have significant organizational implications in the long term. For many companies today the need to react faster to market changes is paramount. New product introductions threaten longstanding inventory investments, new levels of service emerge from smaller predatory competitors and old traditions in manufacturing and distribution delay the response.

2.10 LET US SUM UP

Knowing that meeting distribution demands of customers is the key requirement for the successful operation of a distribution service, the companies have to formulate an appropriate customer service policy in this regard and ensure availability of stock, reduce order cycle time, and improve reliability of delivery schedule. Since it may add to costs, one may negotiate with the customers to effect necessary modification in their requirement of service and then decide on the level of service to be achieved.

In order to ensure achievement of a targeted customer service level, one may build up the necessary strategic plans which may include both manufacturing and physical distribution aspects. This would also require leveraging logistics, evaluating the impact of proposed plans, and supporting the corporate strategic plan. The major factors influencing the logistics planning, of course, are the demand for improved customer service and the costs involved. The other relevant factors in this regard are : (i) need to improve overall financial performance, (ii) proliferation of new products, (iii) shorter production cycles, (iv) more complex logistics network, and (v) a change in the role of players in distribution channels.

The various distribution arrangements that can be employed are: (a) direct shipments from plant inventories, (b) direct shipment from vendors of the production line, and (c) shipments through a warehousing system. The choice primarily depends upon the order quantities involved. However, the logistician may also have to consider certain other aspects like control procedure, transportation services, customer service level, etc.

Management of physical distribution is carried out at three levels. Top management is concerned with strategic planning, the middle level is involved tactical planning, and the supervisory personnel looks after the operational activities.

There are three approaches that could be adopted for effective management of logistics viz., (1) The cost trade offs, (2) the total cost concept, and (3) the total system concept. The traditional approach of treating all components of logistics independent of each other and making efforts to minimise cost of each component is not found to be effective because of the inherent conflict this might lead to. Hence, the logistician has to strike a balance or trade off the conflicting costs in order to achieve the lowest cost of distribution system. The total cost concept, however, implies that the conflicting cost patterns should be examined collectively and balanced at the optimum. The total system approach looks at the physical distribution in its total form as a system and envisages integration of all components as parts of a whole and operate in synergy.

As regards international logistics, the companies have to contend with many peculiarities of demand, distribution, competition and government regulation that differ from one country to another. The other relevant aspects are the documentation, trade zones concept and the transportation bottlenecks. The competitives pressures and changes in economic climate have forced management to have a fresh look at the operational and structural aspects of international supply chains.

Effecting a strategic balance reduces the systems complexity and excessive investment in inventory and capacity. Not only that, there is a need for horizontal and vertical integration of the systems and information flows in international supply chains. There is no doubt that

adopting a holistic approach to the management of international supply chains places an additional burden on the management. However, that is the only way to manage international marketing logistics successfully.

2.11 KEY WORDS

Cost trade offs : It is the recognition that cost patterns of various activities of the firm sometimes display characteristics that put them in economic conflict with one another, and involves balancing the conflicting costs.

Leveraging logistics : Use of logistics for providing a distinctive and competitive advantage.

On-schedule delivery : Delivery goods strictly in accordance with the time schedule provided by the customer.

Order cycle time : It refers to the elapsed time between the customer conveying the need and the fulfillment of that need i.e., receiving the supply.

Strategic logistics planning : It refers to the identification of business goals in terms of customer-service level to be achieved and building up an integrated framework of strategies for each link of the logistics system.

Trade zones : Areas earmarked from production and logistics activities for international trade with good amount of freedom from custom formalities and controls.

Total cost concept : It is the recognition that conflicting costs should be examined collectively and use the total cost of all logistics activities taken together while choosing the course of action in respect of the physical distribution of products.

Total system concept : It is an approach to managing the physical distribution system of products in its total form as a system consisting of several interconnected tasks operating together to achieve the given objectives.

2.12 ANSWERS TO CHECK YOUR PROGRESS

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

B 3 (i) not possible (ii) helps (iii) total cost (iv) integration (v) collectively

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

2.13 TERMINAL QUESTIONS

1. "Meeting distribution demands of customers is the key requirement for the successful operation of a distribution system." Elaborate on this statement and discuss the various customer service considerations.

2. What are the major aspects of strategic logistics planning? Explain these aspects and enumerate the factors that influence logistics planning

3. What are the three important concepts relevant to logistics management by an organization? Explain them briefly and state which one you regard as the best approach and why?

4. Discuss the various environmental aspects which an organization engaged in foreign trade has to reckon with and clarify their impact on logistics system.

5. "Objectives and policies for functioning of the supply chain are usually in conflict both within and across operational units." Amplify this statement and explain how can they be balanced in order to build up an integrative logistics system.

UNIT 3 INLAND TRANSPORT IN OVERSEAS TRADE LOGISTICS

Structure

3.0 Objectives

3.1 Introduction

3.2 Road Transport

- 3.2.1 Road System
- 3.2.2 Role of Road Transport in Movement of Export and Import Cargoes
- 3.2.3 Limitations of Road Transport System
- 3.2.4 Expansion of Road Network and Modernisation of Fleet

3.3 Rail Transport

- 3.3.1 Freight Traffic
- 3.3.2 Export-Import Traffic
- 3.3.3 Projections of Railway's Revenue Earning Freight Traffic
- 3.3.4 Modernisation Programme
- 3.3.5 Some Important Observations

3.4 Water Transport

- 3.4.1 Inland Waterways Authority of India
- 3.4.2 Central Inland Water Transport Corporation
- 3.4.3 Constraints Faced by Inland Water Transport
- 3.4.4 Future Prospects

3.5 Air Transport

- 3.5.1 Organisation of Air Transport
- 3.5.2 Air Services

3.6 Multi-Modal Transport

3.7 Choice of Inland Transport Modes

3.8 Let Us Sum Up

3.9 Key Words

3.10 Answers to Check Your Progress

3.11 Terminal Questions

3.0 OBJECTIVES

After studying the unit, you should be able to:

- explain the importance of inland transport in providing origin-destinantion linkages
- identify various sub-systems of inland transport
- describe the importance and working of road transport in India
- explain the role of Indian Railways in movement of export-import cargo
- outline the constraints faced by inland water transport in India and its future prospects
- explain the organization of civil aviation in India and the role of Indian Airlines in movement of export-import cargo
- define multimodalism and its working in India
- identify factors influencing the choice of mode of inland transportation.